### Fall Quarter 2003
- Quarter begins: September 22
- Instruction begins: September 25
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 27-28
- Instruction ends: December 5
- Common final examinations: December 6-7
- Final examinations: December 8-12
- Quarter ends: December 12
- Christmas holiday: December 24-25
- New Year's holiday: December 31-January 1

### Fall Quarter 2004
- Quarter begins: September 27
- Instruction begins: September 30
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 25-26
- Instruction ends: December 10
- Common final examinations: December 11-12
- Final examinations: December 13-17
- Quarter ends: December 17
- Christmas holiday: December 24-27
- New Year's holiday: December 30-31

### Winter Quarter 2004
- Quarter begins: January 5
- Instruction begins: January 8
- Martin Luther King, Jr. holiday: January 19
- Presidents' Day holiday: February 16
- Instruction ends: March 17
- Review day: March 18
- Final examination day: March 19
- Common final examinations: March 20-21
- Final examinations: March 22-25
- Quarter ends: March 25
- César Chávez holiday: March 26

### Winter Quarter 2005
- Quarter begins: January 3
- Instruction begins: January 6
- Martin Luther King, Jr. holiday: January 17
- Presidents' Day holiday: February 21
- Instruction ends: March 16
- Review day: March 17
- Final examination day: March 18
- Common final examinations: March 19-20
- Final examinations: March 21-24
- Quarter ends: March 24
- César Chávez holiday: March 25

### Spring Quarter 2004
- Quarter begins: March 31
- Instruction begins: April 5
- Memorial Day holiday: May 31
- Instruction ends: June 11
- Common final examinations: June 12-13
- Final examinations: June 14-18
- Quarter ends: June 18
- Commencement weekend: June 19-20

### Spring Quarter 2005
- Quarter begins: March 30
- Instruction begins: April 4
- Memorial Day holiday: May 30
- Instruction ends: June 10
- Common final examinations: June 11-12
- Final examinations: June 13-17
- Quarter ends: June 17
- Commencement weekend: June 18-19

### Online Publications
The UCLA General Catalog is available online at http://www.registrar.ucla.edu/catalog/. Links to updates of UCLA courses and curricula are available from the online Catalog main menu.

Consult the online Schedule of Classes for detailed information on registration and enrollment and for academic and administrative deadlines. The online Schedule at http://www.registrar.ucla.edu/schedule/ has the most current information about fees, deadlines, and courses.

http://www.registrar.ucla.edu
UCLA® General Catalog

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Copies of the 2003-2005 UCLA General Catalog are available for purchase at the UCLA Store for $10.00. To obtain a copy by mail, first determine the proper mailing charges by writing to the UCLA Store, 308 Westwood Plaza, Los Angeles, CA 90095-8311 or calling (310) 825-6064. Charges vary according to destination and method of shipment. Catalogs may also be ordered online; follow the BookZone link from the store’s main menu at http://www.uclastore.ucla.edu and look for the link to the General Catalog.

Every effort has been made to ensure the accuracy of the information presented in the UCLA General Catalog. However, all courses, course descriptions, instructor designations, curricular degree requirements, and fees described herein are subject to change or deletion without notice.

The departmental websites referenced in department addresses in this catalog are maintained by independent operators and do not necessarily reflect approved curricula and courses information. Consult the online catalog for the most current, officially approved courses and curricula.

Other information about UCLA may be found in the announcements of the Schools of Dentistry, Education and Information Studies, Engineering and Applied Science, Law, Management, Medicine, Nursing, Public Health, and Public Policy and Social Research, and in literature produced by the School of the Arts and Architecture and School of Theater, Film, and Television. The most current information on graduate programs is available online at http://www.gdnet.ucla.edu, which contains a link to Graduate Division publications, including Program Requirements for UCLA Graduate Degrees which has the complete text for officially approved graduate programs.

UCLA Accreditation

UCLA is accredited by the Western Association of Schools and Colleges and by numerous special agencies. Information regarding the University’s accreditation may be obtained in the Office of Academic Planning and Budget, 2107 Murphy Hall.

Western Association of Schools and Colleges
985 Atlantic Avenue, Suite 100
Alameda, CA 94501
(510) 748-9001
FROM THE CHANCELLOR OF UCLA

The UCLA General Catalog for 2003-05 reveals the world of academic opportunities available to you at UCLA.

UCLA is one of America’s most comprehensive universities, and a premier center for teaching, research, and service. Thirty-one of our academic programs are ranked among the top 20 in their fields—third-best of any university in the country—including all of our most popular majors.

As a research university committed to bringing the creation of knowledge into the classroom and across the disciplines, we are especially proud of the extraordinary richness and diversity of our teaching program—some 190 fields of study, 184 majors, and more than 11,000 courses that link research with instruction in our College of Letters and Science and 11 professional schools.

This catalog includes many innovative and interdisciplinary opportunities for graduate and undergraduate students, including those that offer priority enrollment for lower-division students. Among these are the Fiat Lux Seminars (small classes that explore a broad array of subjects), Freshman Clusters (year-long, team-taught interdisciplinary examinations of an array of timely topics), and opportunities for student research.

Our ongoing goal is to nurture a vibrant academic community of UCLA faculty and student scholars who advance knowledge, pursue intellectual achievement, and address social challenges. Public service is an integral part of our mission, and the University is actively engaged with the surrounding region in many ways.

I encourage you to continue your exploration of UCLA beyond this catalog. Please join us on campus for a visit, or learn more online about UCLA at http://www.ucla.edu.

Albert Carnesale
Chancellor
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- Educational Administration .................. Joint Ed.D. with UCI
- Special Education .................. Joint Ph.D. with CSULA

Information Studies Department
- Library and Information Science .................. M.L.I.S., Ph.D.
- Moving Image Archive Studies Interdepartmental Program
- Moving Image Archive Studies .................. M.A.

Henry Samueli School of Engineering and Applied Science

Biomedical Engineering Interdepartmental Program
- Biomedical Engineering .................. M.S., Ph.D.

Chemical Engineering Department
- Chemical Engineering .................. B.S., M.S., Ph.D.

Civil and Environmental Engineering Department
- Civil Engineering .................. B.S., M.S., Ph.D.

Computer Science Department
- Computer Science .................. B.S., M.S., Ph.D.
- Computer Science and Engineering .................. B.S.

Electrical Engineering Department
- Electrical Engineering .................. B.S., M.S., Ph.D.

Engineering Schoolwide Programs
- Engineering .................. M.Engr., Engr.

Materials Science and Engineering
- Materials Engineering .................. B.S.
- Materials Science and Engineering .................. M.S., Ph.D.

Mechanical and Aerospace Engineering Department
- Aerospace Engineering .................. B.S., M.S., Ph.D.
- Manufacturing Engineering .................. M.S.
- Mechanical Engineering .................. B.S., M.S., Ph.D.

John E. Anderson Graduate School of Management

Management Department
- Management .................. M.B.A., M.S., C.Phil., Ph.D.

School of the Arts and Architecture

Architecture and Urban Design Department
- Architecture .................. M.Arch. I, M.Arch. II, M.A., Ph.D.

Art Department
- Art .................. B.A., M.A., M.F.A.

Design | Media Arts Department
- Design | Media Arts .................. B.A., M.A., M.F.A.

Ethnomusicology Department
- Ethnomusicology .................. B.A., M.A., C.Phil., Ph.D.

Music Department

World Arts and Cultures Department
- Culture and Performance .................. M.A., Ph.D.
- Dance .................. M.F.A.

School of Dentistry

Dentistry Department
- Dental Surgery .................. D.D.D.

Oral Biology Section
- Oral Biology .................. M.S., Ph.D.

School of Law

Law Department
- Law .................. J.L., J.D., S.J.D.

School of Nursing

Nursing Department
- Nursing .................. B.S., M.S.N., Ph.D.

School of Public Health

Biostatistics Department
- Biostatistics .................. M.S., Ph.D.

Community Health Sciences Department
- Community Health .................. M.S., Ph.D.

Environmental Health Sciences Department
- Environmental Health Sciences .................. M.S., Ph.D.

Epidemiology Department
- Epidemiology .................. D.Env.

Environmental Science and Engineering Interdepartmental Program
- Environmental Science and Engineering .................. M.S., Ph.D.

School of Theater, Film, and Television

Film, Television, and Digital Media Department
- Film and Television .................. B.A., M.A., M.F.A., C.Phil., Ph.D.

Moving Image Archive Studies Interdepartmental Program
- Moving Image Archive Studies .................. M.A.

Theater Department
Undergraduate Minors and Specializations

MINORS
John E. Anderson Graduate School of Management
Accounting
Graduate School of Education and Information Studies
Education Studies
College of Letters and Science
African Studies
Afro-American Studies
American Indian Studies
Anthropology
Applied Developmental Psychology
Arabic and Islamic Studies
Armenian Studies
Art History
Asian American Studies
Asian Humanities
Atmospheric and Oceanic Sciences
Chicana and Chicano Studies
Classical Civilization
Cognitive Science
Comparative Literature
East Asian Languages
English
Environmental Systems and Society
French
Geochemistry
Geography
Geography/Environmental Studies
Geology
Geophysics and Planetary Physics
German
Germanic Languages
Gerontology
Greek
Hebrew and Jewish Studies
History of Science and Medicine
Italian
Labor and Workplace Studies
Language, Interaction, and Culture
Latin
Latin American Studies
Lesbian, Gay, Bisexual, and Transgender Studies
Linguistics
Mathematics
Middle Eastern and North African Studies
Music Studies
Music History
Naval Science
Near Eastern Languages and Cultures
Neuroscience
Philosophy
Political Science
Portuguese
Russian Language
Russian Literature
Russian Studies
Scandinavian
Southeast Asian Studies
Spanish
Spanish Linguistics
Statistics
Teaching English as a Second or Foreign Language
Women’s Studies
School of Public Policy and Social Research
Public Policy

SPECIALIZATIONS
College of Letters and Science
Comptuing
Anthropology
Chemistry
Communication Studies
Economics
Geography
Linguistics
Mathematics
Mathematics/Economics
Molecular Cell, and Developmental Biology
Organismic Biology, Ecology, and Evolution
Psychology
Sociology
Diversified Liberal Arts (Certificate Program)
International Relations
Organizational Studies
Urban Studies

Graduate Concurrent and Articulated Degrees

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.

Afro-American Studies Interdepartmental M.A. — Law J.D.
American Indian Studies Interdepartmental M.A. — Law J.D.
Architecture M.Arch. I — Urban Planning M.A.
Asian American Studies Interdepartmental M.A. — Public Health M.P.H.
Asian American Studies Interdepartmental M.A. — Social Welfare M.S.W.
Education M.A., Ph.D., M.Ed., or Ed.D. — Law J.D.
History M.A. — Library and Information Science M.L.I.S.
Islamic Studies Interdepartmental M.A. — Public Health M.P.H.
Latin American Studies Interdepartmental M.A. — Urban Planning M.A.
Management M.B.A. — Computer Science M.S.
Management M.B.A. — Computer Science M.S.
Management M.B.A. — Latin American Studies Interdepartmental M.A.
Management M.B.A. — Law J.D.
Management M.B.A. — Library and Information Science M.L.I.S.
Management M.B.A. — Medicine M.D.
Management M.B.A. — Nursing M.S.N.
Management M.B.A. — Public Health M.P.H.
Management M.B.A. — Urban Planning M.A.
Public Health M.P.H. — Law J.D.
Public Policy M.P.P. — Law J.D.
Social Welfare M.S.W. — Law J.D.
Urban Planning M.A. — Law J.D.

ARTICULATED DEGREES

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

Afro-American Studies Interdepartmental M.A. — Public Health M.P.H.
Latin American Studies Interdepartmental M.A. — Education M.Ed. in Curriculum
Latin American Studies Interdepartmental M.A. — Library and Information Science M.L.I.S.
Latin American Studies Interdepartmental M.A. — Public Health M.P.H.
Medicine M.D. — Graduate Division health science major Ph.D.
Oral Biology M.S. or Ph.D. — Dentistry D.D.S. or Certificate
Few universities in the world offer the extraordinary range and diversity of academic programs that students enjoy at UCLA. Leadership in teaching, research, and public service make UCLA a beacon of excellence in higher education, as students, faculty, and staff come together in a true community of scholars to advance knowledge, address societal challenges, and pursue intellectual and personal fulfillment.

Teaching

The Conference Board of Associated Research Councils, which evaluates the quality of the faculty in 274 American research universities, rates UCLA fourteenth in the nation among both public and private universities. Of the 41 doctoral degree disciplines studied, 10 UCLA academic departments are ranked among the top 10 in the country and 21 are 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 between one college and 11 professional schools. The College of Letters and Science offers programs leading to both undergraduate and graduate degrees, as do the School of the Arts and Architecture, Henry Samueli School of Engineering and Applied Science, School of Nursing, and School of Theater, Film, and Television. The other professional schools offer graduate programs exclusively: the Graduate School of Education and Information Studies, School of Law, John E. Anderson Graduate School of Management, School of Public Policy and Social Research, and, in the health sciences, the School of Dentistry, David Geffen School of Medicine, and School of Public Health.

Undergraduates may earn a Bachelor of Arts or Bachelor of Science degree in one of 121 different disciplines; graduate students may earn one of 88 master’s and 108 doctoral and 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 and students, both graduate and undergraduate—venture every day into uncharted worlds from the molecular to the galactic. Whether it’s 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 10 leading research universities in the country, UCLA received a record $767.7 million in 2001-02 in extramural grants and contracts to support its research. Each year it hosts hundreds of postdoctoral scholars who share its facilities.

In terms of overall excellence, UCLA is one of America’s most prestigious and influential public universities. It is consistently rated among the best universities in the nation.
The Los Angeles branch of the State Normal School welcomed students in 1882. Ground was broken for the Westwood campus in 1927, when construction began on Royce Hall.

A Brief History of UCLA

With only 11,000 inhabitants in 1880, the pueblo of Los Angeles convinced the state government to establish a State Normal School in Southern California. Enthusiastic citizens contributed between $2 and $500 to purchase a site, and on August 29, 1882, the Los Angeles Branch of the 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 by 1927 the Southern Branch had earned its new name: University of California at Los Angeles. (The name was changed again in 1958 to University of California, Los Angeles.)

Continued growth mandated the selection of 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—formed a lonesome cluster in the middle of 400 empty acres. The campus hosted some 5,500 students its first term in 1929. The Regents established the master's degree at UCLA in 1933 and, three years later, the doctorate. UCLA was fast becoming a full-fledged university offering advanced study in almost every field.

The most spectacular growth at UCLA occurred in the 25 years following World War II, when it tripled its prewar enrollment of 9,000 students and 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 715-bed teaching hospital that is now one of the largest and most highly respected in the world.

The University of California System

The University of California traces its origins to 1868, when Governor Henry H. Haight signed the Organic Act providing for California’s first “complete University.” Classes began the following year at the College of California in Oakland. The first buildings on the Berkeley campus were completed in 1873, and the University moved into its new home. The following June, the University conferred bachelor’s degrees on 12 graduates.

Today the University 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, Santa Cruz, Merced, Santa Barbara, Riverside, Irvine and, of course, Los Angeles.

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 University’s only veterinary medicine program; San Diego has excellent oceanography and marine biology programs; San Francisco is devoted exclusively to the health sciences. Among the campuses there are five medical schools and three law schools, as well as schools of architecture, business administration, education, engineering, and many others.

The UC campuses have a combined enrollment exceeding 183,355 students, over 90 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 providing public service to California and the nation. The collections of over 100 UC libraries on the 10 campuses are surpassed in size on the American continent only by the Library of Congress collection.

The UC faculty is internationally known for its distinguished academic achievements. On its 10 campuses the University has 26 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, the 10 chancellors, and the directors and deans who administer the affairs of the individual campuses and divisions of the University.

The Regents delegate authority in academic matters to the Academic Senate, which determines academic policy for the University as a whole. The Senate, composed of faculty members and certain administrative officers, determines the conditions for admission and granting of degrees, authorizes and supervises courses and curricula, and advises University administrators on budgets and faculty appointments and promotions. Individual divisions of the Universitywide Academic Senate determine academic policy for each campus.

Students participate in policy-making at both campuswide and systemwide levels.
Its laboratories have seen major breakthroughs in scientific and medical research; its study centers have helped foster understanding among the various cultures of the world; 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 undergraduates, 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 UCLA’s greatest commitments. 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 the University and the entire Los Angeles region.

With a new state-of-the-art hospital to open in 2004, UCLA furthers its tradition of medical outreach and assures the highest quality of care to Los Angeles and the world. Low-income families receive top-quality treatment from School of Dentistry clinics on campus, in Venice, or in east Los Angeles. The Santa Monica-UCLA Medical Center’s Rape Treatment Center offers 24-hour care to victims. The School of Public Health’s Community Health Promotion Program supports community-service projects to benefit poor and underserved communities, and the School of Nursing offers care through its nurse-managed clinic at Skid Row’s Union Rescue Mission and its midwifery practice. The University also supports K-12 enhancement programs such as the School of the Arts and Architecture’s Music Partnership Program, which funds UCLA students to be academic and musical mentors for at-risk youth.

As UCLA gives to the community, Los Angeles gives something back. The University’s 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 classic-film screenings from the School of Theater, Film, and Television archives. These relationships create opportunities for partnerships and growth that ensure UCLA’s preeminence into the twenty-first century and beyond.

**LIFE ON CAMPUS**

Just five 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. Some 296 buildings on 419 acres house the College of Letters and Science plus 11 professional schools and serve more than 37,599 students.

A UNIQUE SETTING

The Romanesque architecture of UCLA’s early buildings blends with the modern design of new structures and provides 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 the Ackerman quad, a classical recital may be taking place in Schoenberg Hall, and students contemplating a Rodin or Lachaise in the Murphy Sculpture Garden may be unaware of a political rally organizing in Meyerhoff Park.
ABOUT UCLA

To give a feel for the dynamic atmosphere at UCLA, Undergraduate Admissions and Relations with Schools offers tours tailored to prospective undergraduates. See http://www.admissions.ucla.edu/tours.htm. ☎ 310-825-8764

A LARGE CAMPUS WITH A COMFORTABLE FEEL

The general campus population, some 33,574 students, is enriched by an additional 4,025 in the health sciences schools of Dentistry, Medicine, Nursing, and Public Health. While such numbers sound daunting, the University provides orientation sessions and innovative academic assistance programs to help acclimate new students and, 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, 96 percent of lower division lecture classes in 2002-03 had under 200 students, and the University is striving to further reduce class size. Large lecture classes typically include discussion sections of about 25 students or smaller seminars and laboratory classes. There is an overall ratio of one faculty member for approximately 17 students. Most UCLA faculty members set aside office hours for students and appreciate the opportunity for informal conversation. Professors are often aided by graduate student teaching assistants (TAs) who are available to talk about academic problems.

A DYNAMIC STUDENT BODY

Students at UCLA pride themselves on academic excellence. The Fall Quarter 2002 entering freshman class had an average high school GPA of 4.11, with an average composite score on the Scholastic Assessment Test (SAT) of 1,264 out of a possible 1,600.

One of the University's highest priorities is to advance the diversity of its students, faculty, staff, and administrators. UCLA's 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 more than 120 foreign countries to study at UCLA. Ethnic minorities comprise 65.9 percent of the undergraduates and 49.3 percent of the graduate student population, and international students and scholars presently number over 4,800, making this one of the most popular American universities for students from abroad.

RESEARCH PROGRAMS

At any given time, more than 5,000 funded research programs are in progress at UCLA. For information on any of the programs listed below, see http://www.research.ucla.edu/labs/.

ORGANIZED RESEARCH UNITS

Organized Research Units (ORUs) are campuswide research programs. Members come from more than one department and normally from more than one school, college, or division. See http://www.ovcr.ucla.edu/research/oru_vcr.html.

BRAIN RESEARCH INSTITUTE

The Brain Research Institute (BRI) has one of the largest programs for neuroscience research and education in the country, with more than 250 scientists involved in every aspect of neuroscience research from molecular organization to human behavior. The BRI provides 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 school outreach program and a joint educational program with UCLA Extension. See http://www.bri.ucla.edu. ☎ 310-825-1868

CENTER FOR MEDIEVAL AND RENAISSANCE STUDIES

The Center for Medieval and Renaissance Studies supports the research activities of some 30 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 Ph.D. graduates. See http://www.humnet.ucla.edu/humnet.cmrs/. ☎ 310-825-1880

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. See http://www.humnet.ucla.edu/humnet/c1718cs/. ☎ 310-206-8552

The Clark Library's renowned collection centers on Oscar Wilde and his era.
The center administers the William Andrews Clark Memorial Library, located 13 miles from UCLA, which specializes in seventeenth- and eighteenth-century British works. It also has a renowned collection centering on Oscar Wilde and his era and significant holdings of modern fine printing and Western Americana. See http://www.humnet.ucla.edu/humnet/clarklib. ☎ 323-731-8529

**CENTER FOR THE STUDY OF WOMEN**
The Center for the Study of Women draws on the energies of more than 245 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, as well as an annual graduate student research conference. See http://www.csw.ucla.edu. ☎ 310-825-0590

**COTSEN INSTITUTE OF ARCHAEOLOGY**
The Cotsen Institute of Archaeology 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 40 researchers and many graduate students and volunteers in 10 associated academic departments. Facilities include the Information Center (regional office of the California Archaeological Inventory), Ceramics Laboratory, Computer Imaging of Archaeological Data, Obsidian Hydration and Lithic Analysis Laboratory, Paleoethnobotany Laboratory, Rock Art Archive, and Zooarchaeology Laboratory. It publishes the findings of scholars from UCLA and other archaeology centers and provides a forum for the public presentation of archaeological discoveries and advances. See http://www.ioa.ucla.edu. ☎ 310-206-8934

**CRUMP INSTITUTE FOR MOLECULAR IMAGING**
The Crump Institute for Molecular Imaging 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 Ph.D. graduate students that include the development of multimedia computer-based learning technologies. See http://www.crump.ucla.edu. ☎ 310-825-6539

**DENTAL RESEARCH INSTITUTE**
The Dental Research Institute (DRI) fosters professional training and public education as it focuses on the basic mechanisms of disease in the orofacial region. Members include scientists in molecular biology, immunology, virology, biochemistry, pharmacology, pathology, genetics, developmental biology, neurobiology, and neurophysiology. Research includes molecular oncology, viral oncology, molecular mechanisms of periodontal diseases, dental implantology, orofacial pain, neuroimmunology, molecular immunology, HIV immunology, and wound repair. The DRI contributes to educational activities in the form of quarterly seminars in the UCLA Center for the Health Sciences. See http://www.dent.ucla.edu/dri/. ☎ 310-206-8045

**INSTITUTE OF AMERICAN CULTURES**
The Institute of American Cultures oversees four ORUs associated with UCLA ethnic studies centers. Applying the University’s capabilities to the analysis and solution of social issues, the institute makes funds available for research and fellowships and promotes the study and illumination of the histories of African Americans, American Indians, Asian Americans, and Chicanas/Chicanos. See http://www.gdnet.ucla.edu/iacweb/iachome.htm. ☎ 310-206-2557

**Ralph J. Bunche Center for African American Studies**
The Bunche Center for African American Studies conducts and sponsors research on the African American experience, coordinates the Afro-American studies curriculum, publishes research results, and sponsors community service programming. See http://www.bunchecenter.ucla.edu. ☎ 310-825-7403

**American Indian Studies Center**
The American Indian Studies Center serves as an educational and research catalyst and includes a library; B.A., undergraduate minor, master’s, and postdoctoral fellowship programs; a publishing unit that produces books and a quarterly journal; and a student/community relations unit. See http://www.sscnet.ucla.edu/indian/. ☎ 310-825-7315

**Asian American Studies Center**
The Asian American Studies Center seeks to increase the 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, postdoctoral fellowships, and B.A., undergraduate minor, and master’s programs. See http://www.sscnet.ucla.edu/aasc/. ☎ 310-825-2974
Chicano Studies Research Center

The Chicano Studies Research Center promotes the study and dissemination of knowledge on the experience of the 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. See http://www.sscnet.ucla.edu/csrc/. ☎ 310-825-2363

Institute of Geophysics and Planetary Physics

The Institute of Geophysics and Planetary Physics 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. See http://www.igpp.ucla.edu. ☎ 310-825-1580

Institute of Industrial Relations

The interdisciplinary research program of the Institute of Industrial Relations studies employment relationships, including labor markets, labor law, labor and management relations, equal employment opportunity, occupational safety and health, and related issues. Its Center for Labor Research and Education offers social policy and employment relations programs to the public, unions, and management. See http://www.iir.ucla.edu. ☎ 310-794-5957

Institute for Social Science Research

The Institute for Social Science Research promotes interdisciplinary research on contemporary sociological, psychological, political, and economic problems and community issues. Research components include the Center for American Politics and Public Policy, Center for the Study of Urban Poverty, Center for Research in Society and Politics, Center for Social Theory and Comparative History, Survey Research Center, Social Science Data Archive, and Organizational Research Program. Training in survey research methodology is available to students through participation in the annual Los Angeles County Social Survey. The institute publishes the ISSR Working Papers in the Social Sciences. See http://www.sscnet.ucla.edu/issr/. ☎ 310-825-0711

Jules Stein Eye Institute

The Jules Stein Eye Institute is one of the best equipped centers for research and treatment of eye diseases in the world. At any given time, over 5,000 funded research programs are in progress at UCLA. Campus research centers, laboratories, and institutes are listed at http://www.research.ucla.edu/labs/. The Jules Stein Eye Research Center houses clinical facilities as well as new research and training programs concentrating on major eye diseases worldwide.

Molecular Biology Institute

The Molecular Biology Institute (MBI) promotes molecular biology research and teaching at UCLA. The institute houses the laboratories of 30 MBI members, as well as the administration of the Molecular Biology Interdepartmental Ph.D. Program, the UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, and the UCLA ACCESS to Programs in the Molecular, Cellular, and Integrative Life Sciences. See http://www.mbi.ucla.edu. ☎ 310-825-1018

Neuropsychiatric Institute

The Neuropsychiatric Institute and affiliated units—including the Neuropsychiatric Hospital, the Department of Psychiatry and Biobehavioral Sciences, and one organized research unit, the Mental Retardation Research Center—provide UCLA’s leadership in the study and treatment of disorders of human behavior, the brain, and the mind. See http://www.npi.ucla.edu.
Mental Retardation Research Center
The Mental Retardation Research Center provides laboratories and clinical facilities for research and training in mental retardation and related aspects of human development. Interdisciplinary activities range from anthropological studies to molecular aspects of inherited metabolic diseases. See http://www.mrrc.npi.ucla.edu/mrrc/. ☎ 310-825-5189

Plasma Science and Technology Institute
The Plasma Science and Technology Institute is dedicated to research of plasma physics, fusion energy, and the application of plasmas in other disciplines. Students, professional research staff, and faculty 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, laser-plasma interactions, and the use of plasma in applications ranging from particle accelerators to the processing of materials and surfaces used in microelectronics or coatings. See http://www.physics.ucla.edu/psti/. ☎ 310-825-1642

UCLA-DOE Laboratory of Structural Biology and Molecular Medicine
The UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, funded though a Department of Energy contract, conducts research in molecular nuclear medicine and structural biology and genetics. Laboratory 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, nuclear magnetic resonance, protein expression, and X-ray crystallography facilities. See http://www.doe-mbi.ucla.edu/overview.html. ☎ 310-825-3754

UCLA International Institute
The UCLA International Institute oversees four study centers that are designated ORUs.

James S. Coleman African Studies Center
The Coleman African Studies Center coordinates research and teaching on 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 Health, Public Policy and Social Research, 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. See http://www.international.ucla.edu/jscasc/. ☎ 310-825-3686

Center for European and Eurasian Studies
The Center for European and Eurasian Studies develops and coordinates teaching and research on Russia and the successor states of the former Soviet Union, as well as the countries of western Europe, through conferences, lectures, seminars, and academic exchange programs with European and Russian institutions. It also offers an interdepartmental undergraduate major and provides fellowships to graduate students in European area studies. See http://www.international.ucla.edu/euro/. ☎ 310-825-4060

Gustave E. von Grunebaum Center for Near Eastern Studies
The von Grunebaum Center for Near Eastern Studies coordinates research and academic programs related to the Near East. It administers the degree programs in Middle Eastern and North African Studies and Islamic Studies. Resources of the center 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. See http://www.international.ucla.edu/cnes/. ☎ 310-825-1181

Latin American Center
The Latin American Center is a major regional, national, and international resource on Latin America and hemispheric issues. The center 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 center promotes the use of UCLA Latin American resources for the benefit of the campus, the broader community, and the public at large. See http://www.international.ucla.edu/lac/. ☎ 310-825-4571

Specialized Research Centers, Laboratories, and Institutes
Additional research centers, laboratories, and institutes advance scholarship in all fields. The breadth of research conducted on campus is reflected in undertakings as diverse as the Center for Astrobiology—which is developing new strategies for Mars exploration—and the Jonsson Comprehensive Cancer Center—one of only 41 comprehensive centers in the nation.

Interdisciplinary activities in the social sciences include the nationally respected Busi-
ness Forecasting Project in UCLA's John E. Anderson Graduate School of Management and the Center for Study of Evaluation in the Graduate School of Education and Information Studies, which is at the forefront of efforts to improve the quality of schooling in America.

In the health sciences, research ranges from neurological and neuromuscular diseases at the Reed Neurological Research Center to epidemiology, immunology, and the clinical management of AIDS at the UCLA AIDS Institute and the Center for Clinical AIDS Research and Education. The Fernald Child Study Center focuses on the study and treatment of a variety of childhood behavioral problems and learning disorders.

In the physical sciences and engineering, the Institute for Pure and Applied Mathematics makes connections between a wide spectrum of mathematicians and scientists and broadens the range of applications in which mathematics is used. On other frontiers, the Center for Embedded Network Sensing, a National Science Foundation Science and Technology Center, develops embedded networked sensing systems to monitor and collect information on plankton colonies, endangered species, soil and air contaminants, medical patients, and buildings, bridges, and other man-made structures.

The Center for the Study of Urban Poverty initiates new research on issues related to urban poverty and sponsors seminars in the field. The Center for Communication Policy is a national leader in communications public policy issues such as technological innovations in telecommunications and the social and political impact of these changes.

The leading arts and cultural center in the West, UCLA museums, galleries, and gardens provide eclectic resources ranging from the ancient to the avant-garde.

The Center for Graphic Arts holds over 45,000 prints, drawings, and photographs and artists’ books from the Renaissance to the present.

**SUPPORTING RESOURCES**

As UCLA students and scholars advance knowledge, illuminate the past, shape the present, and uncover the future, they rely on resources that support their endeavors in all fields. From a top-rated library to outdoor nature reserves, the campus is well-equipped to meet diverse scholastic needs.

**ART GALLERIES AND MUSEUMS**

The Fowler Museum of Cultural History is internationally known for the quality of its collections, which encompass the arts and material culture of much of the world, with particular emphasis on West and Central Africa, Oceania, and Latin America. It supports UCLA instruction and research and sponsors major exhibitions, lecture programs, and symposia. The museum is open to the public Wednesday through Sunday. For more information on hours and admission, see http://www.fmch.ucla.edu/index.htm. ☎310-825-4361

**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, and photographs, 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. See http://www.hammer.ucla.edu/collection.htm. ☎310-443-7078

**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 Rodin, Matisse, Calder, Lachaise, Lipchitz, Moore, Miró, Hepworth, and many other late nineteenth- and early twentieth-century masters. All works in this distinguished collection are private gifts to the University. Tours may be arranged. See http://www.hammer.ucla.edu/collections/sculpture_garden_index.htm. ☎310-443-7000

**UCLA HAMMER MUSEUM**

The UCLA 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 “Dialogues on Art,” are presented throughout the week. For information on programming, hours, and docent tours, see http://www.hammer.ucla.edu. ☎ 310-443-7000

LIBRARIES

The UCLA Library, a campuswide network of libraries serving programs of study and research in many fields, is among the top 10 ranked research libraries in the U.S. The total collections number more than 7.6 million volumes, and more than 94,000 serial titles are received regularly.

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 the library’s web-based online information systems. ORION2 contains records for all UCLA Library holdings and other campus collections, including the Research and Study Center of the Film and Television Archive, Chicano Studies Research Center Library, Ethnomusicology Archive, Institute for Social Science Research Data Archives Library, and Instructional Media Library. ORION2 also provides library item location and circulation status.

The California Digital Library, a library for the entire University of California system, provides access to the Melvyl Catalog, the California Periodicals Database, numerous abstracting and indexing databases, and gateways to other systems. The Melvyl Catalog contains information on library holdings at all nine 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 College Library electronic reserves and electronic journals, texts, reference resources, periodical indexes and abstracts. See http://www.library.ucla.edu.

ARTS LIBRARY

Housed in the Public Policy Building, the Arts Library collects material on architecture, art history, design, film, television, history of architecture, photography as fine art, studio art, and theater. 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. Arts Special Collections, housed in the Young Research Library, contain non-circulating materials, including the Princeton Index of Christian Art, Artists’ File, archival records of major Southern California motion picture studios and television production companies, scripts from film, television, and radio, animation art, personal papers of writers, directors, and producers, photographs and production stills, posters, lobby cards, press kits, and West Coast theater playbills. See http://www.library.ucla.edu/libraries/arts/.

CHARLES E. YOUNG RESEARCH LIBRARY

The Young Research Library primarily serves graduate research in the humanities, social sciences, education, public policy, and urban planning. 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. The Department of Special Collections contains rare books and pamphlets, primarily in the humanities and social sciences, 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. See http://www.library.ucla.edu/libraries/yl/.

The UCLA Library is among the top research libraries in the U.S.
ABOUT UCLA

**Music Library**

The collections of the Music Library in the Schoenberg Music Building include books, music scores, 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. Music Special Collections 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; it also houses the Archive of Popular American Music, a special collection of published and manuscript sheet music, recordings, and related materials. See http://www.library.ucla.edu/libraries/music/.

**Eugene and Maxine Rosenfeld Management Library**

Located in the John E. 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. See http://www.anderson.ucla.edu/resources/library/.

**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 foreign and comparative law holdings. The Law Library reports to the dean of the School of Law. See http://www.law.ucla.edu/library/.

**Louise M. Darling Biomedical Library**

The Darling Biomedical Library, located in the Center for the Health Sciences, serves all the UCLA health and sciences departments and schools and the UCLA Medical Center. Its collections focus on materials related to medicine, nursing, dentistry, public health, physiological sciences, biology, molecular biology, 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. See http://www.library.ucla.edu/libraries/biomed/.

**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. See http://www.library.ucla.edu/libraries/eastasian/.

**Science and Engineering Library**

The Science and Engineering Library (SEL) collections on engineering, mathematics, and the physical sciences are housed in four separate locations. SEL/Chemistry, in Young Hall, houses materials on chemistry, biochemistry, and molecular biology. SEL/Engineering and Mathematical Sciences, in Boelter Hall, houses materials on aeronautics, astronomy, atmospheric sciences, bioengineering, chemical, civil, electrical, environmental, manufacturing, mechanical, and nuclear engineering, computer science, electronics, energy technology, mathematics, metals and materials, and pollution. SEL/Geology-Geophysics, in the Geology Building, houses materials on geology, geophysics, geology, paleobiology, micropaleontology, invertebrate paleontology, ore deposits, geomorphology, hydrology, and chemical oceanography. SEL/Physics, in Kinsey Hall, houses materials on solid-state, elementary particle, high-energy, mathematical, nuclear, and plasma physics, acoustics, spectroscopy, optics, and astrophysics. See http://www.library.ucla.edu/libraries/sel/.

**Special Archives and Collections**

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

**Cultural Center Collections**

The Center for African American Studies Library 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, while the Asian American Studies Center Reading Room features Asian and Pacific American resources.
Materials related to Chicano and Latino cultures are housed in the Chicano Studies Research Center Library, and the William Andrews Clark Memorial Library contains rare books, manuscripts, and other noncirculating materials on English culture (1640 to 1750). The English Reading Room features a noncirculating collection of English and American literature, literary history, and criticism.

**INSTRUCTIONAL MEDIA LIBRARY AND LABORATORY**

The Instructional Media Library, located in the Powell Library Building, is UCLA’s central resource for the 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. The library monitors compliance with University guidelines and federal copyright law governing the use of video recordings. Reference books from educational and feature film distributors are available. The staff assists in researching media on any subject and obtaining materials from outside sources. See http://www.oid.ucla.edu/Imlib/. ☎ 310-825-0755

The Instructional Media Laboratory provides access to course- or textbook-related audio, interactive, and videotape programs. Students, assigned by faculty to study specific supplementary materials, may learn at their own pace and time. See http://www.oid.ucla.edu/Imlab/. ☎ 310-206-1211

**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’s holdings of over 220,000 original film and television materials 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, Warner Brothers, Sony/Columbia, Republic, RKO, New World Pictures, and Orion. Special collections document the careers of William Wyler, Hal Ashby, Tony Curtis, Rosalind Russell, Stanley Kramer, Cecil B. DeMille, Harold Lloyd, 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’s exhibition program presents evening screenings and discussions that focus on archival materials, new work by independent filmmakers, and an array of international films. See http://www.cinema.ucla.edu. ☎ 310-206-FILM

The Archive Research and Study Center (ARSC) in the Powell Library Building provides on-site viewing of the Film and Television Archive’s collections and research consultation to students, faculty, and researchers. ☎ 310-206-5388

**OTHER COLLECTIONS**

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

**COMPUTER SUPPORT**

The exciting pace of computer technology demands an environment where information systems are recognized as a strategic requirement with a strong focus of attention, and where there is a solid technology foundation already in place. UCLA provides that environment and ensures hardware, software, and training to support research and study.

**ACADEMIC TECHNOLOGY SERVICES**

Academic Technology Services (ATS) provides resources and services that support the UCLA distributed computing environment. Through its five service areas ATS seeks to facilitate cross-departmental information technology initiatives, provide specialized resources to faculty and students in pursuit of their research and instructional goals, and leverage the volume purchasing power of the
University. See http://www.ats.ucla.edu. ☎ 310-825-6635

Training and consulting services include classes in statistical applications, high-performance computing, scientific visualization, and geographical information systems. See http://www.ats.ucla.edu/stat/training.htm. ☎ 310-825-7431

Through Software Central, ATS informs the UCLA community of software available at educational or special volume discounts and provides technical support for many applications. See http://www.ats.ucla.edu/software/. ☎ 310-206-4780

ADVANCED TECHNOLOGIES

Advanced Technologies offers integrated services to faculty. Areas of expertise include technical and administrative grant development support; storage and management tools for research and instructional data; analysis and interpretation of complex data sets through statistical and visualization support; high-performance network consulting services for research; and high-performance computing through Beowulf clusters, consulting support for faculty to access the National Supercomputer Centers, and support for the development of central and local commodity-based Linux clusters. See http://www.ats.ucla.edu/at/. ☎ 310-825-7426

DISABILITIES AND COMPUTING PROGRAM

The Disabilities and Computing Program (DCP) provides adaptive technology services and support to students, faculty, and staff with disabilities, to faculty who are working with students with disabilities, and to departments. The DCP also coordinates access to computers, local area networks, and online resources for people with disabilities. See http://www.dcp.ucla.edu. ☎ 310-206-7133

STUDENT COMPUTER LABORATORIES

Student laboratories are supported through Academic Technology Services and the College Library Instructional Computing Commons. See Student Services later in this chapter for information.

PARKS, RESERVES, AND NATURAL SCIENCE RESOURCES

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

BIOLOGICAL COLLECTIONS

The Biological Collections of the Organismic Biology, Ecology, and Evolution 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. See http://www.obee.ucla.edu/dickey/. ☎ 310-206-6084

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 veterinary medical and husbandry programs throughout the campus. See http://www.dlam.ucla.edu. ☎ 310-825-7281

HANNAH CARTER JAPANESE GARDEN

One mile from the UCLA campus in Bel Air, the Japanese Garden provides a unique illustration of art and nature for courses such as landscape architecture, environmental design, East Asian studies, and art classes. The Kyoto-style terraced garden was designed by Japanese artisans using native plants and artifacts. Traditional features such as a teahouse, shrine, antique stone water basins, and a koi pond are enjoyed by faculty, students, school and community groups, and others. Visits are by reservation only. See http://www.japanesegarden.ucla.edu. ☎ 310-825-4574

MARINE SCIENCE CENTER

The Marine Science Center coordinates marine-related teaching and research on campus and facilitates interdepartmental interaction of faculty and students. UCLA offers one of the broadest interdisciplinary educational programs in marine sciences in the U.S. Field trips for marine-related courses and access to research sites in the Santa Monica Bay, Channel Islands, and the Southern California Bight are provided by UCLA's 68-foot research vessel Sea World UCLA. See http://www.msc.ucla.edu. ☎ 310-206-8247

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 specializes in tropical and subtropical plants, including some
5,000 species in 225 families. 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. See http://www.botgard.ucla.edu.☎310-825-1260

The Mathias Botanical Garden offers thousands of plants for study and enjoyment.

Each year more than 1,700 undergraduate and graduate students from UC campuses study at distinguished universities throughout the world through the Education Abroad Program.

SUPPLEMENTARY EDUCATIONAL PROGRAMS

In addition to the regular academic programs that are described in the Curricula and Courses section of this catalog, the following optional programs are available to UCLA undergraduate and graduate students.

EDUCATION ABROAD PROGRAM

Each year more than 1,700 undergraduate and graduate students from UC campuses study at distinguished universities throughout the world through the Education Abroad Program (EAP). UCLA students remain registered here while overseas and receive UC units and grade points for work completed abroad.

Currently, EAP offers study opportunities at more than 140 different universities in 35 countries: Australia, Barbados, Brazil, Canada, Chile, China, Costa Rica, Czech Republic, Denmark, Egypt, France, Germany, Ghana, Hong Kong, Hungary, India, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Philippines, Russia, Singapore, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, United Kingdom, and Vietnam.

Participants can spend up to a full academic year abroad, enjoying a unique opportunity to enhance language skills, take courses in their major, and become involved in the culture of the host country. One-term programs are available in Australia, Barbados, Brazil, Canada, Chile, China, Costa Rica, Denmark, Egypt, France, Germany, Ghana, Hong Kong, Hungary, India, Israel, Italy, Japan, Korea, Mexico, Netherlands, Philippines, Russia, Singapore, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, United Kingdom, and Vietnam.

Summer programs are offered in Denmark and Mexico. In Costa Rica there is a one-term tropical biology field study program, and field study programs are available in Mexico.

For all programs a special orientation program and, when necessary, intensive language training are included. During the year UC faculty members at the host university assist with scholastic or personal problems.

EAP is open to all undergraduate students who have (1) at least a B average (3.0 GPA) overall at the time of application and (2) the support of the UCLA EAP Selection Committee. Some programs have a
ABOUT UCLA

language requirement as well. Most programs require junior standing (90 units minimum) at departure; seniors and transfer students are welcome.

Graduate students who have completed at least one year of graduate work and have the approval of their graduate adviser and the dean of the Graduate Division may participate at most study centers.

Costs for participation in EAP vary, but University financial aid and special EAP scholarships are available to those who qualify. Applications must be filed several months in advance. See http://www.international.ucla.edu/eap/.

☎ 310-825-4995

SUMMER SESSIONS

Throughout the summer, UCLA offers more than 500 courses from approximately 60 UCLA departments in six-, eight-, nine-, and 10-week sessions. Many students take advantage of Summer Sessions to enroll in courses they were unable to take during the year, repeat courses in which they may have done poorly, lighten their academic load for the following term, or complete graduation requirements more quickly.

Admission to Summer Sessions does not constitute admission to the University in either undergraduate or graduate standing. Students who wish to attend UCLA in regular session must follow admission procedures described in the Undergraduate Study and Graduate Study sections of this catalog.

Regularly enrolled undergraduate students may attend UCLA Summer Sessions for full unit and grade credit. Summer Sessions work is recorded on the UCLA transcript, and grades earned are computed in the grade-point average. Check with the College or school counselor about applying these courses toward degree requirements and about any limitations the College or school may impose on Summer Sessions study. Financial Aid funds are available to UCLA students.

Regularly enrolled graduate students may, with departmental approval, take regular session courses offered in Summer Sessions for credit toward a master’s or doctoral degree; consult the graduate adviser in advance concerning this possibility. Summer Sessions courses may also satisfy the academic residence requirement for master’s or doctoral 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 in 1147 Murphy Hall. See http://www.summer.ucla.edu. ☎ 310-794-8333

UCLA EXTENSION

With over 65,000 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 the University—its scholars, research, and resources—to the community and the state as a whole.

Many of UCLA Extension’s 4,500 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, widely used for relicensure and other professional/career-related purposes.

Although registering for Extension courses does not constitute admission to regular session, 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 section of this catalog.

The Extension Advisory Service offers assistance in planning long- or short-term study through Extension. The office is located in 114 UCLA Extension Building, 10995 Le Conte Avenue. See http://www.uclaextension.org. ☎ 310-206-6201

To obtain the current UCLA Extension Catalog, request a copy online at the website above or contact the Registration Office. ☎ 310-825-9971

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.

SERVICES FOR STUDY

From academic advising to advanced computer support, UCLA services for study 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 major department counsel undergraduates concerning majors offered and their requirements, and possible career and graduate school options (see Advising and Academic Assistance in the Undergraduate Study section of this catalog). In addition, special 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. Using BOL, students enroll in classes or access student records through URSA, check class availability in the online Schedule of Classes, search the UCLA Library collections, access their Study Lists through MyUCLA, and connect to a range of campus events, programs, and services. Bruin OnLine services include dial-up access to the campus backbone network and the Internet, e-mail accounts, and space for personal webpages. BOL Internet access software is available at the UCLA Store and can be downloaded from the BOL site. See http://www.bol.ucla.edu. ☎ 310-825-7452

**COMPUTER LABORATORIES**

Student laboratories are supported through Academic Technology Services (ATS) and the College Library Instructional Computing Commons (CLICC), a collaborative effort between ATS, the Center for the Digital Humanities, Social Sciences Computing, the Office of Instructional Development, and College Library. Some 16 computer laboratories are available throughout the campus, each with computers, peripherals, software, and services that cater to specific areas of study. See http://computerlabs.ucla.edu. ☎ 310-206-0271

**COURSE WEB PAGES**

The Instructional Enhancement Initiative, which was launched by the College of Letters and Science, assures that all Letters and Science undergraduate courses, except independent studies and other similar courses, provide an individual course website for faculty, 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.

**LECTURE NOTES AND COURSE READERS**

For certain courses, students may subscribe to Lecture Notes, which publishes concise weekly summaries of about 100 lecture classes. See http://www.uclastore.ucla.edu/textbooks/lecturenotes/lecnotes.html. ☎ 310-206-0882

Academic Publishing provides custom course readers, obtaining 5,000 copyright authorizations each year. See http://www.uclastore.ucla.edu/textbooks/ap/ap.html. ☎ 310-825-2831

**MYUCLA**

MyUCLA provides a portal to individual student information. Features include a personalized Study List showing classes and class information such as grades; a notifications section for important announcements; a subscriptions section to access online information from newspapers, journals, or magazines or from University departments, clubs, and organizations; and links to UCLA online resources, including URSA, the Schedule of Classes, and UCLA General Catalog. WebMail provides students an intuitive way to access private e-mail accounts from any computer via MyUCLA. Letters and Science students are able to obtain additional services, including the ability to view their counseling appointments, check the status of petitions, and track their honors progress. See http://my.ucla.edu.

**UNIVERSITY RECORDS SYSTEM ACCESS**

Through University Records System Access (URSA) UCLA students acquire academic, financial, and personal information from their University academic records and enroll in classes. URSA operates Sunday from 6 p.m. through 1 a.m. Tuesday and Tuesday through Saturday from 6 a.m. to 1 a.m., including holidays. See http://www.ursa.ucla.edu.

For most students, URSA provides the easiest way to gain real-time access to academic, financial, and personal records. The site is designed with an intuitive visual interface that walks students through the different steps of the procedure they are trying to accomplish, whether it be to check their billing accounts, change address information, view and print Study Lists or Degree Progress Reports (DPRs), or see term grades. URSA OnLine also provides a convenient way to enroll in classes, to verify enrollment appointment times, and to view real-time enrollment counts.
**Veterans Affairs and Social Security Services**

The Veterans Affairs coordinator, 1113 Murphy Hall, provides information for veterans and eligible dependents about veterans’ educational benefits, tutorial assistance, and the work-study program; issues fee waivers to dependents of California veterans who are deceased or disabled because of service-connected injuries and who meet the income restrictions in Education Code Section 10652; and certifies student status for recipients of Social Security benefits.

**Services for Health and Safety**

**Arthur Ashe Student Health and Wellness Center**

The Ashe Student Health and Wellness Center in Westwood Plaza is an outpatient clinic for UCLA students. Most services are prepaid by registration fees, and a current BruinCard is required for service. Core (prepaid) services include visits, most procedures, X rays, and some laboratory procedures. Noncore (fee) services, such as pharmaceuticals, injections, orthopedic devices, and some laboratory procedures, are less costly than elsewhere. If students withdraw during a school term, all Ashe Center services continue to be available on a fee basis for the remainder of that term, effective from the date of withdrawal. ☎ 310-825-4073

The cost of services received outside the Ashe Center, such as the Emergency Room, is each student’s financial responsibility. Students are required to purchase supplemental medical insurance either through the UCLA-sponsored Graduate and Undergraduate Student Health Insurance Plans or other plans that provide adequate coverage.

Consult the Ashe Center site for specific information on its primary care, women’s health, and men’s health clinics, as well as on dental care which is available to students at discounted rates. See http://www.studenthealth.ucla.edu.

For emergency care when the Ashe Center is closed, students may obtain treatment at the UCLA Medical Center Emergency Room or UCLA Family Practice on a fee-for-service basis.

UCLA provides a Student Health Insurance Plan to cover services not offered at the Ashe Center. Adequate medical insurance is a condition of registration. See Registration in the Undergraduate Study and Graduate Study sections of this catalog.

**Mental Health Services**

Services for mental health range from routine counseling and psychotherapy to a phone hot line.

**Student Psychological Services**

Student Psychological Services offers short-term personal counsel and psychotherapy at two locations: the Mid-Campus Office in 4223 Math Sciences (☎ 310-825-0768) and the South Campus Office in A3-062 CHS (☎ 310-825-7985).

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.

Service is confidential and free to regularly enrolled students. Students are seen individually by appointment or may choose from a number of groups offered each term. Emergency counseling is also available. See http://www.saonet.ucla.edu/sps.htm.

SPS is also a designated Sexual Harassment Information Center, as well as a campus Harassment Information Center, available to all UCLA students (see Harassment in the Appendix).

**UCLA Peer Helpline**

UCLA Peer Helpline is a crisis intervention and referral hot line staffed by UCLA students and staff members. Students can call and talk to a trained peer counselor about school stress, relationship problems, loneliness, depression, drug problems, suicide, or anything else that is on their mind. See http://www.studentgroups.ucla.edu/helpline. ☎ 310-825-HELP

**Student Safety and Security**

Dial 911 from any campus phone for police, fire, or medical emergencies. For nonemergency information, contact the UCLA Police Department. See http://www.ucpd.ucla.edu. ☎ 310-825-1491

The police department provides a free Campus 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, or Westwood Village. See http://www.ucpd.ucla.edu/ucpd/cso/escorts.html. ☎ 310-794-WALK

The free Evening Van Service provides a safe, accessible, and convenient mode of transportation around campus at night. Vans provide transportation between Ackerman Union, westside apartments, Lot 32, campus libraries, and residence halls. See http://www.ucpd.ucla.edu/ucpd/cso/vanroutes.html. ☎ 310-825-9800

UCLA Sexual Violence 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. See http://www.thecenter.ucla.edu/programs.html. ☎ 310-206-8240

Cardiopulmonary resuscitation (CPR) and basic emergency care courses are offered by the Center for Prehospital Care and can be organized most days and times. See http://www.cpc.mednet.ucla.edu. ☎ 310-794-8797

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 University 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. See http://www.ehs.ucla.edu. ☎ 310-825-5689

ASSOCIATED STUDENT SERVICES

Founded when UCLA opened in 1919, the Associated Students UCLA provides services to the campus community through student government, publications, and services and enterprises. Every registered UCLA student is a member of ASUCLA. See http://www.asucla.ucla.edu.

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 students in academic, administrative, campus, and statewide areas. GSA appoints or elects graduate student members to important campus organizations and committees from the Student Fee Advisory Committee to the committees of the Academic Senate. It sponsors various graduate student journals, programs, and social events, including the Melnitz Movies film program. See http://gsa.asucla.ucla.edu. ☎ 310-206-8512

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 is a member of USA.

The breadth of USA activities offers an invaluable service to the campus and surrounding communities and provides students the opportunity to participate in and benefit from these endeavors. For example, USA programs benefit both campus and community through programs to 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 Transfer Student Association. See http://students.asucla.ucla.edu.

CAMPUS EVENTS

Each year approximately 40,000 students, faculty, and staff attend programs of the Campus Events Commission (CEC), including a low-cost film program, a 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 programs—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, Whoopie Goldberg, and Tom Hanks.

The Concert Program brings new and name performing artists like Rage against the Machine or A Tribe Called Quest to UCLA for free and affordably priced concerts. See http://students.asucla.ucla.edu/CEC/. ☎ 310-825-1958
The Cultural Affairs Commission sponsors art exhibits in the Kerckhoff Hall Art Gallery and the Jazz/Reggae Festival. See http://students.asucla.ucla.edu/CAC/. ☎310-825-6564

**Publications and Broadcast Media**

Publications and media provide a training ground for aspiring writers, journalists, photographers, and radio announcers while serving the communication needs of the campus community. Most publications offices are in Kerckhoff Hall. See http://studentmedia.ucla.edu.

**Daily Bruin**

The Daily Bruin, with a circulation of 15,000, 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, and advertising sales representatives; new staff members are welcome. See http://www.dailybruin.ucla.edu. ☎310-825-9898

**Newsmagazines**

Six print newsmagazines and one online newsmagazine reflecting the diversity of the campus community are published each term. Al-Talib, Ha'Am, La Gente, Nommo, Pacific Ties, and TenPercent deal respectively with issues relevant to the Muslim; Jewish; Chicano, Latino, and Native American; African; Asian; and gay, lesbian, transsexual, and transgender communities, while Fem covers women's issues. Each includes news and features on political and cultural affairs both on and off campus. Prospective staffers are welcome.

**UCLA Yearbook**

The UCLA yearbook, Bruinlife, is one of the largest student publication efforts on campus. Available each spring, it contains photographs and information on undergraduate students, graduating seniors, athletic teams, fraternities and sororities, and campus activities. A separate publication, the Freshman Record, is produced for new UCLA students. Students who would like to participate may contact the yearbook staff. ☎310-825-2640

**KLA Radio**

The UCLA radio station, KLA Radio, broadcasts live over the Internet from http://www.uclaradio.com and features college alternative, hip-hop, jazz, and world music. It also covers select Bruin football, basketball, and baseball games and 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. ☎310-825-9105

**UCLAtv**

UCLAtv, the student-run television station, broadcasts over the campus cable network (channel 29)—available in the dormitories and select campus buildings—and the Internet from http://www.UCLAtv.com. It gives students an opportunity to practice television-related skills and to provide information, entertainment, and a forum for the free expression and exchange of ideas to the UCLA community.

**UCLA Restaurants**

ASUCLA operates more than a dozen restaurants and three coffee houses on campus assuring a range of eating options from Taco Bell to sushi. From the residence halls to the student union, a restaurant is never far. Hours vary, especially during summer and holidays. For hours and locations of all the restaurants, see http://www.uclastore.ucla.edu/information/restaurant.html.

**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. See http://www.uclastore.ucla.edu.

The UCLA Store—Ackerman Union has seven departments. The Textbooks department 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 the UCLA Faculty Authors section. The Computer Store carries personal computers, peripherals, accessories, and software at low academic prices. Essentials offers school and office supplies, including consumables for computer printers. BearWear specializes in UCLA emblematic merchandise. Fast Track carries active footwear and sportswear for men and women, plus an extensive Clinique counter. Market is a convenience store, with snacks, health and beauty aids, and cut flowers. See http://www.collegestore.org/ UCLAStore/au.html. ☎310-825-7711

UCLA Store—Health Sciences (http://www.uclaestore.com/uclahss/; ☎310-825-7721) specializes in books and supplies for students in dentistry, medicine,
nursing, public health, and related areas. UCLA Store–Lu Valle Commons (http://www.collegestore.org/UCLAStore/luvallle.html; ☎ 310-825-7238) 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 and Hill Top Shop in Sunset Village are convenience store locations.

Other Services and Enterprises

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

Students preparing to graduate can use the Campus Photo Studio (☎ 310-206-0889) for their senior yearbook portraits. Graduation Etc. (☎ 310-825-2587) sells and rents caps, gowns, and hoods for degree ceremonies and provides announcements, diploma mounting, and other graduation-related products and services.

On the lighter side, ASUCLA operates a game room called Xcape with pinball, video, and electronic games. ☎ 310-206-0829

Services for Student Life

From housing to transportation, basic student needs are facilitated by services designed to enhance all aspects of student living.

Accommodations

The UCLA Housing booklet is mailed to all students when they are accepted for admission. It contains a campus housing application plus details of all residence options and is the best guide for finding the right kind of accommodation for different lifestyles and budgets. See http://www.housing.ucla.edu. ☎ 310-825-4271

On-Campus Housing

Many students, especially those in their first year, choose to live on campus. Besides the convenience, it’s a good way to meet other people and to find out about social and academic activities. Four residence halls, two residential suites, and two village-type complexes accommodate over 7,400 undergraduates. Four more residential houses accommodate 160 transfer and upper division students. All on-campus housing is coed and within walking distance to classrooms.

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

To apply for on-campus housing, the completed application must be postmarked by the deadlines set by the housing office. Students applying for Winter or Spring Quarter are assigned on a space-available basis in the order applications are received. See http://www.housing.ucla.edu/housing_site/oncampus/index.htm.

Per-person costs for the academic year start at just under $8,000. Consult the housing office for the range of price options. See http://www.housing.ucla.edu/housing_site/oncampus/rates.htm.

The Office of Residential Life is responsible for student conduct in residence halls and suites and provides professional and student staff members to counsel residents on programming and other problems. See http://www.orl.ucla.edu. ☎ 310-825-3401

The office is also a designated Sexual Harassment Information Center and Harassment Information Center available to all UCLA students (see Harassment in the Appendix for more information).

Off-Campus Housing

The UCLA Community Housing Office provides information and listings for University-owned apartments, cooperatives, private apartments, roommates, rooms in private homes, and short-term housing. Rental listings are updated daily. Fraternity and sorority housing provides another option for members of the Greek system.

Within walking distance of campus, the University maintains five off-campus apartment buildings for full-time undergraduate 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. See http://www.housing.ucla.edu/housing_site/apartments/undergrad.htm. ☎ 310-825-4271

Off-campus apartments for married, single-parent, and single graduate students include unfurnished one-, two-, and three-bedroom units about five miles from campus. Assignment to several of the apartment units is by wait list; students should not wait until they have been accepted to UCLA to apply. Verification of marriage and/or copies of children’s birth certificates must accompany the application. See http://www.housing.ucla.edu/housing_site/apartments/UASouth.htm. ☎ 310-398-4692

Many of the fraternities and sororities at UCLA own chapter houses. Complete information and membership requirements is provided by Fraternity and...
Sorority Relations. See http://www.greeklife.ucla.edu/housing.htm. ☎ 310-825-6322

The Community Housing Office also has bus schedules, area maps, and neighborhood profiles. A current BruinCard or letter of acceptance is required for service. See http://www.cho.ucla.edu. ☎ 310-825-4491

**BANKING**

Automatic Teller Machines representing most 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. See http://www.ucu.org.

**CENTER FOR WOMEN AND MEN**

The Center for Women and Men in the Student Activities Center offers services to all UCLA students, with special focus on gender-related issues and concerns and reentry/nontraditional student services.

The center presents workshops and support groups on topics such as assertiveness training, child care, career and leadership development, healthy relationships, mentorship for women in the sciences, men’s issues, returning to school, single parenting, sexual violence prevention and education, and health and wellness. It also offers referrals for medical, legal, career planning, personal counseling, and other services both on and off campus. In addition, rape services consultants (RSCs)—individuals who provide information, support, and resources for members of the UCLA community who have been raped or sexually assaulted—can discuss options and alternatives, help identify and assist in contacting the most appropriate support services, and answer any questions that may arise. See http://www.thecenter.ucla.edu.

The center is also a designated Sexual Harassment Information Center and campus Harassment Information Center available to all UCLA students.

**CENTRAL TICKET OFFICE**

Tickets for UCLA events are available at the Central Ticket Office (CTO) in the West Alumni Center. As part of its service, 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. See http://www.tickets.ucla.edu. ☎ 310-825-2101

**DEAN OF STUDENTS**

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 University policies and procedures, including grievance procedures regarding student records, discrimination, and student debts.

In addition, 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 Office of the Dean of Students may also administer campus discipline and enforce 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: University Policies in the Appendix for more information. See http://www.deanofstudents.ucla.edu. ☎ 310-825-3871

**EARLY CARE AND EDUCATION**

UCLA Early Care and Education (formerly UCLA Child Care Services) operates three child care centers near the University and student housing. Care is provided for children two months to five years old at most centers. Fees depend on the age of the child, the site, and schedule selected. A limited number of state grants is available for eligible student families. See http://www.childcare.ucla.edu. ☎ 310-825-5086

The Early Care and Education Information and Resources Program helps parents make off-campus child care arrangements and coordinates a Choosing Child Care Forum each month. ☎ 310-825-8474
The University Parents Nursery School is a multicultural cooperative school for two- to five-year-old children of UCLA students, faculty, and staff; priority is given to students living in Family Student Housing. Hours are weekdays 7:30 a.m. to 5:30 p.m. There is also a morning and an afternoon program. The nursery school is located in the UCLA University Village Child Care Complex, 3233 South Sepulveda Boulevard. See http://www.bol.ucla.edu/~upns/.☎ 310-397-2735

INTERNATIONAL STUDENT SERVICES

International student services in Bradley Hall provide support for UCLA’s international community, particularly for nonimmigrant students. An orientation program helps international students plan their academic objectives, and programs throughout the year allow them to share viewpoints with American students and the community.

Office of International Students and Scholars

The Office of International Students and Scholars (OISS) assists students with questions about immigration, employment, government regulations, financial aid, academic and administrative procedures, cultural adjustment, and personal matters. OISS is a designated Sexual Harassment Information Center for international students and a Harassment Information Center available to all UCLA students. In addition, OISS provides visa assistance for faculty, researchers, and postdoctoral scholars. See http://www.intl.ucla.edu. ☎ 310-825-1681

Dashew International Student Center

The Dashew International Student Center seeks to improve student and community relationships and helps international students with language, housing, and personal concerns. It also sponsors cultural, educational, and social programs. See http://www.internationalcenter.ucla.edu.

LESBIAN, GAY, BISEXUAL, AND TRANSGENDER CAMPUS RESOURCE CENTER

The Lesbian, Gay, Bisexual, and Transgender (LGBT) Campus Resource Center in the Student Activities Center provides education, information, and advocacy services for the UCLA community. The center offers support groups, educational workshops, and training seminars and maintains a small library of books and periodicals. 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. See http://www.lgbt.ucla.edu.

OFFICE FOR STUDENTS WITH DISABILITIES

The Office for Students with Disabilities (OSD) in Murphy Hall provides academic support services to regularly enrolled students with documented permanent or temporary disabilities in compliance with Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990, and University policies. Free support services include readers, note takers, sign language interpreters, Learning Disabilities Program, special parking assistance, registration assistance, fee deferments authorized by the California Department of Rehabilitation, on-campus transportation, campus orientation and accessibility, proctor and test-taking arrangements, tutorial referral, housing assistance, support groups and workshops, special materials, adaptive equipment, and referral to the Disabilities and Computing Program. Accommodations are varied and specifically designed to meet the documented disability-related needs of each student. All contact and assistance are handled confidentially. See http://www.saonet.ucla.edu/osd/.☎ 310-825-1501, TDD 310-206-6083, fax 310-825-9656

For information on the Disabilities and Computing Program, see Computer Support under Supporting Resources earlier in this section.

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 by the visitor, assist in resolving an issue through mediation (including sexual harass-
The office is also a designated Sexual Harassment Information Center for students, faculty, and staff, as well as a campus Harassment Information Center available to all UCLA students (see Harassment in the Appendix for more information).

**PARKING AND COMMUTER SERVICES**

Parking, ridesharing, and other transportation options and services are offered through UCLA Transportation Services. There are several commuting alternatives for students to get to and from campus without driving their cars. Both full-time and part-time riding opportunities are available.

**Commuter Assistance-Ridesharing**

The Commuter Assistance-Ridesharing (CAR) Office is the best place for information on transportation options. Many students form or join existing UCLA carpools or vanpools. More than 130 vanpools commute to UCLA from nearly 80 Southern California communities. Full- and part-time riding opportunities are available, and registered two- and three-person student carpools are given top priority to receive parking (see below).

These and other commuting options, including an extensive network of public transit, are described in the UCLA Commuter Guide available at Parking Services in the Strathmore Building at Strathmore Drive and Westwood Plaza. See http://www.transportation.ucla.edu. ☎ 310-794-RIDE

**Parking Permits**

Due to limited availability, parking at UCLA is offered to students who demonstrate the greatest need. Student parking permits are assigned through a point system that considers class standing, commute distance, previous attendance, employment, dependent children, and professional school obligations. Students are encouraged to apply on time and follow all application and payment guidelines in order to increase their chances of receiving a permit. Permits are not guaranteed.

When assigning parking permits to students, UCLA Parking Services gives the highest priority to carpools. Carpool permits are guaranteed to all qualified two- and three-person student carpool groups that apply on time. Student carpools park in central campus parking areas and share a discounted permit fee. Students interested in forming a carpool who need help finding other students living near them should request a free RideGuide at http://www.transportation.ucla.edu/rideguide.asp. All members of a proposed student carpool must apply in person as a group. ☎ 310-825-9894

Most student permits are assigned for the academic year and can be paid for annually or quarterly. Renewal forms for students paying quarterly are automatically mailed before the Winter and Spring Quarter payment due dates. Students who are not offered a parking assignment during a given term or who wish to change their parking area need to reapply the following quarter.

Student Parking Request forms, along with important quarterly due dates and information on how to apply for a parking permit, are available by phone or in person at Parking Services. Parking request forms can also be downloaded at http://www.transportation.ucla.edu/appmain.htm. ☎ 310-825-9871

Students with permanent disabilities who have disabled persons’ placards or DMV-issued disabled persons’ license plates and students with short-term disabilities may apply to the Office for Students with Disabilities for parking assignments and on-campus transportation assistance. See http://www.saonet.ucla.edu/osd/. ☎ 310-267-2004

Parking permits and access cards to campus lots and structures are not transferable and may be purchased only from UCLA Parking Services. Resale is prohibited and subjects both buyer and seller to disciplinary action.

**POST OFFICES**

Campus mail is handled by UCLA Mail, Document, and Distribution Services, which offers full-service document processing and delivery for the campus community. See http://www.maildoc.ucla.edu. ☎ 310-794-6371

The United States Postal Service also operates two express post offices for the campus, including a branch in Ackerman Union.

**STUDENT LEGAL SERVICES**

Through Student Legal Services in Dodd Hall, currently registered and enrolled students with legal problems can get assistance from attorneys or law students under direct supervision of attorneys. They help students solve legal problems, including those related to landlord/tenant relations; domestic violence and harassment; divorces and other family law matters; accident and injury problems; criminal matters; automobile purchase, repair, and insurance problems; health care, credit, and financial aid issues; consumer problems; and University-related issues. Assistance is available only by appointment. See http://www.studentlegal.ucla.edu. ☎ 310-825-9894
UCLA BruinCard

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

The primary benefit of the BruinCard is convenience. It is a versatile card that serves the following functions: confirmation of student status; I.D. card for faculty, staff, and students; building access card; library card; recreation center card; debit card (if activated) for purchases at all campus stores and restaurants; time-management card for departments using the Kronos system; and Big Blue Bus pass.

Students with a hold from an office with which they have an outstanding obligation (financial, academic, or administrative) may not receive services until the hold is released by the initiating office. For details on outstanding holds and initiating offices, check URSA at http://www.ursa.ucla.edu.

BruinCard centers are in 123 Kerckhoff Hall, 107 UCLA Wilshire Center, and 150A Sproul Hall. See http://www.bruincard.ucla.edu for further information and to report lost or stolen cards.

☎ 310-825-2336

UCLA CAREER CENTER

The UCLA Career Center, located in the Strathmore Building, offers career planning and employment assistance free to all UCLA students. Services are in the Career Center and in two specialized service centers: Engineering and Science Career Services in Boelter Hall and Internship and Study Abroad Services in the Strathmore Building. See http://career.ucla.edu.

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 Library offers a collection of over 3,000 career-related books and directories, videos, periodicals, and other materials. In addition, the Career Center 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 volume of part-time, temporary, and seasonal employment leads advertised through the Career Center's 24-hour BruinView™ online listings available on the web. 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.

STUDENT ACTIVITIES

The opportunities to participate in extracurricular activities at UCLA are virtually unlimited and provide 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. UCLA has about 700 different organizations recognized by the Center for Student Programming—more than are found on almost any other university campus in the country.

CENTER FOR STUDENT PROGRAMMING

Organizations registered with the Center for Student Programming (CSP) 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. CSP also handles complaints of misconduct against officially recognized student organizations. See http://www.studentactivities.ucla.edu.

☎ 310-825-7041

Two major CSP divisions are the Community Programs Office and Fraternity and Sorority Relations.

Community Programs Office

The UCLA Community Programs Office (CPO) was established in 1970 by concerned students, staff, and faculty who felt that the pedagogical role of students should not only consist of classroom instruction but should be relevant to social issues as well.

Currently, the CPO houses 30 student-initiated community and student support projects that encompass educational, legal, social, medical, and academic services to underserved communities in the Los Angeles area. CPO is unique in its multicultural and ethnically diverse environment and the
experience it offers in campus and community programming. See http://www.communityprograms.ucla.edu. ☎ 310-825-5696

Fraternity and Sorority Relations
Fraternities and sororities have been at UCLA since the 1920s. Today UCLA counts some 50 national and local Greek-letter organizations that make up one of the largest Greek systems on the West Coast. Fraternity and Sorority Relations (FSR) interprets University policies, procedures, and regulations and acts as a liaison between established Greek organizations and the University. It coordinates Greek-letter social organizations, which participate in programs such as the Greek Leadership Conference, Membership Recruitment, Greek Week, New Member Forums, Dating Expectations Programs, intramural tournaments, and University-sponsored programs. See http://www.greeklife.ucla.edu.

FSR is a designated campus Harassment Information Center available to all UCLA students (see Harassment in the Appendix for information).

PERFORMING ARTS
Concerts, dance recitals, and theater productions are all part of exceptional programs offered by the Music, Ethnomusicology, Theater, Film, Television, and Digital Media, and World Arts and Cultures departments and by UCLA Performing Arts.

DEPARTMENT EVENTS
The Ethnomusicology Department provides students with the opportunity to perform in various world music and ethnic ensembles that provide concerts listed in the department’s schedule of events. See http://www.ethnomusic.ucla.edu.

The Music Department features performances by ensembles ranging from jazz to opera. In addition, the Gluck Fellows Music Outreach Program provides community outreach through free performances throughout the Los Angeles and Southern California region. See http://www.music.ucla.edu.

The Theater Department presents a series of major productions to the general public, and the Film, Television, and Digital Media Department features student-directed films and television programs throughout the year. The School of Theater, Film, and Television’s annual festival is a week long celebration of film, video, new media, animation, screenwriting, and TheaterFest, which features everything from performance art to the classics. See http://www.tft.ucla.edu.

The World Arts and Cultures Department presents events and concerts involving departmental faculty, guest artists, and students. Student performances include M.F.A. 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 Handmade showings or Pau Hana, that feature many world dance forms. See http://www.wac.ucla.edu.

UCLA PERFORMING ARTS
Since 1937, UCLA Live has served as the premier West Coast showcase for world-class performing artists and ensembles as well as innovative new work in dance, music, theater, and performance art. UCLA Live presents more than 200 public concerts and events each year, often sponsoring debut performances of new works by major artists. Through UCLA Performing Arts, the campus hosts a varied and active performance program, ranging from regular concerts by the Los Angeles Chamber Orchestra to events with Luciano Pavarotti, Yo-Yo Ma, Alvin Ailey American Dance Theater, Kathleen Battle, Mikhail Baryshnikov, Pina Bausch Tanztheater Wuppertal, Twyla Tharp, Stomp, Pinchas Zukerman, and Branford and Wynton Marsalis. Subject to availability, discount tickets are offered to students, faculty, and staff. See http://www.cfpa.ucla.edu. ☎ 310-825-4401

SPORTS AND ATHLETICS
Athletics play a major role in the University’s mission to provide 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 and now ranks first in the U.S. in the number of National Collegiate Athletic Association (NCAA) championships won (89). In 2001-02 the UCLA athletic programs (men and women) placed fifth in the Sears Directors Cup national all-around excellence survey. In the 23-year history of the former USA Today survey, the men’s program placed first 11 times, while 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). See http://www.uclabruins.com.

UCLA also has produced a record number of professional athletes such as Troy Aikman, Eric Karros, Reggie Miller, Natalie Williams, and Corey Pavin and Olympians such as gold medalists Lisa Fernandez, Karch Kiraly, Gail Devers, and Dot Richardson.

ATHLETIC FACILITIES
The major indoor arena at UCLA is the famed Pauley Pavilion, which seats 12,800 for UCLA basketball, volleyball, and gymnastics events. It was the site of the 1984 Summer Olympics gymnastics competi-
tion. Immediately adjacent, Drake Stadium is the home of UCLA track and field and soccer competitions and site of many outdoor events, including the U.S. Olympic Festival ’91. 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 1,050, is the home of the championship women’s softball team. The Morgan Intercollegiate Athletics Center houses the UCLA Athletic Hall of Fame. Off-campus facilities include Jackie Robinson Stadium for varsity baseball and the renowned Rose Bowl in Pasadena, home of the UCLA football team.

**MEN’S INTERCOLLEGIATE SPORTS**

UCLA is a member of the Pacific-10 Conference, which includes Arizona State University; University of Arizona; University of California, Berkeley; Stanford University; University of Southern California; University of Oregon; Oregon State University; Washington State University; and the University of Washington. UCLA teams have won an overall total of 67 NCAA men’s championships—second highest in the nation—including 18 in volleyball, 15 in tennis, 11 in basketball, eight in track and field, seven in water polo, four in soccer, two in gymnastics, and one each in golf and swimming. Students can participate on the varsity level in football, basketball, track, baseball, tennis, volleyball, water polo, golf, soccer, and cross-country. ☎ 310-825-8699

**WOMEN’S INTERCOLLEGIATE SPORTS**

With 11 different varsity sports, the UCLA women’s program is one of the most extensive in the country, and UCLA has played an important role in establishing women’s sports as part of the NCAA. Women’s teams have won an overall total of 22 NCAA titles—fifth highest in the nation—including eight in softball, four each in gymnastics and track and field, three in volleyball, two in water polo, and one in golf. Other nationally ranked teams are those in basketball, swimming, tennis, cross-country, and soccer. ☎ 310-825-8699

**UCLA RECREATION**

To help students learn new skills, meet people with similar interests, relieve stress, and increase fitness, the Department of Cultural and Recreational Affairs (CRA) oversees programs from intramural sports to outdoor adventures. See http://www.recreation.ucla.edu. ☎ 310-825-3701

**INTRAMURAL AND CLUB SPORTS**

The UCLA Intramural Sports Program consists of team, dual, and individual sports competition in tournament or league play. Over 2,200 teams and 16,000 participants compete throughout the year in various sports activities ranging from basketball to water polo. UCLA students and RecCard holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.

The Club Sports Program offers 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. Recognized teams exist in ice hockey, men’s and women’s rugby and lacrosse, men’s gymnastics, cycling, rowing, sailing, snow skiing, surfing, and water skiing.

**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 camping, rock climbing, scuba diving, windsurfing, rowing, sailing, snow skiing, surfing, and water skiing. ☎ 310-206-1252

**CLASS PROGRAMS**

Noncredit recreation classes in aquatics, dance, fine arts, martial arts, outdoor studies, tennis, and sports skills are offered for beginning and intermediate levels. Private lessons in tennis, fitness activities, swimming, racquetball, and golf are also available. Students can also participate in cultural events through art exhibitions, the poetry reading program, museum tours, and theater in Los Angeles outings.

Fitness is offered either as a recreation class or on a drop-in basis. A Fitness Pass must be purchased to participate in drop-in fitness classes.
Facilities
For registered students who prefer independent recreation and exercise, CRA offers access to many facilities. The Wooden Recreation and Sports Center has multiple gymnasiums, 10 racquetball/handball courts, two squash courts, a weight training facility, rock climbing wall, exercise/dance and martial arts rooms, and a games lounge. The 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, 10 lighted tennis courts, and various meeting rooms and lounges, as well as a Challenge Course. The UCLA Marina Aquatic Center offers sailing, windsurfing, kayaking, canoeing, scuba diving, and rowing classes and 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.

Youth and Family Programs
Youth and Family Programs offer exciting activities for children 3 to 17 years old. Summer programs include Camp Bruin Tots for age 5, Camp Bruin Kids for ages 5 to 10, Camp Explore for ages 7 to 11, Sunset Sleepover for ages 7 to 12, Quest for ages 10 to 15, Camp Voyager for ages 12 to 15, Camp Adventure for ages 13 to 15, Counselors in Training for ages 15 to 17, group and private lessons, and special events. Year-round classes are also offered on Saturday mornings. Activities combine play with skill development and deepen the fun in learning.

UCLA Alumni Association
Celebrating more than 69 years of serving the UCLA community, the UCLA Alumni Association has nearly 88,000 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.
The Office of Undergraduate Admissions and Relations with Schools (UARS) invites prospective students to visit UCLA for individual or group tours of the campus. Reservations are required. See http://www.admissions.ucla.edu/tours.htm.

UNDERGRADUATE ADMISSION

Undergraduate Admissions and Relations with Schools
1147 Murphy Hall
(310) 825-3101
http://www.admissions.ucla.edu

Prospective UCLA undergraduates 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. High school honors level and advanced placement courses are good preparation regardless of the desired major. To be competitive, UCLA applicants need to present an academic profile much stronger than that represented by the minimum UC admission requirements.

APPLYING FOR ADMISSION

To apply for admission to UCLA, complete the UC Application for Undergraduate Admission and Scholarships. Applicants may apply from mid-September to the Fall Quarter deadline online at http://www.ucop.edu/pathways/. Applicants may also download and print an application from the same website or obtain a paper copy of the application from a California high school or community college counselors as well as any of the UC undergraduate admissions offices.

One application is used for the eight UC campuses with undergraduate programs. Students apply to one UC campus for a nonrefundable application fee; an additional fee is charged for each additional campus.

WHEN TO APPLY

All majors and programs in the College of Letters and Science, the School of Arts and Architecture, the School of Theater, Film, and Television, the School of Nursing, and the Henry Samueli School of Engineering and Applied Science are open for Fall Quarter. For Winter Quarter all majors in the Henry Samueli School of Engineering and Applied Science are open to junior-level transfer students. All other majors and programs are closed for admission for the Winter Quarter.

NOTIFICATION OF ADMISSION

The UC Undergraduate Application Processing Service mails out notices to acknowledge receipt of applications. Subsequently, UCLA UARS notifies students of the admission decision. The length of time before admission notification varies. In general, Fall Quarter freshman applicants are notified in late March and transfers in late April; Winter Quarter applicants are notified in late September.

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

ENTRANCE REQUIREMENTS

Entrance requirements established by the University follow the guidelines set forth in the California Master Plan for Higher Education, which requires that the top one eighth 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. UCLA offers admission to those students with the best overall academic preparation. For details, see http://www.admissions.ucla.edu.

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

<table>
<thead>
<tr>
<th>Application Deadlines</th>
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<tbody>
<tr>
<td>Winter Quarter 2004</td>
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<tr>
<td>Spring Quarter 2004</td>
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<tr>
<td>Fall Quarter 2004</td>
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</tbody>
</table>
summer session immediately following high school graduation are still considered freshmen applicants.

**MINIMUM ADMISSION REQUIREMENTS**

To be considered for admission as a freshman, students must meet the subject requirement, the scholarship requirement, and the examination requirement.

**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. Each course must be completed with at least a grade of C. The requirement consists of 15 year-long courses, seven of which must be taken during the last two years in high school. These are the minimum requirements; students should exceed these requirements whenever possible.

<table>
<thead>
<tr>
<th>Subject Requirement</th>
<th>Years</th>
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<tbody>
<tr>
<td>a. History/Social Science</td>
<td>2 years</td>
</tr>
<tr>
<td>b. English</td>
<td>4 years</td>
</tr>
<tr>
<td>c. Mathematics</td>
<td>3 years</td>
</tr>
<tr>
<td>d. Laboratory Science</td>
<td>2 years</td>
</tr>
<tr>
<td>e. Language Other than English</td>
<td>2 years</td>
</tr>
<tr>
<td>f. Visual and Performing Arts</td>
<td>1 year</td>
</tr>
<tr>
<td>g. College Preparatory Electives</td>
<td>1 year</td>
</tr>
</tbody>
</table>

To be considered for admission as a freshman, students must meet three main requirements: the subject requirement, the scholastic requirement, and the examination requirement. To be competitive, applicants need to present an academic profile much stronger than that represented by the minimum admission requirements.

**Scholarship Requirement**

Eligibility for admission to the University of California is based on a combination of the grade-point average in the academic subject requirement and the SAT I (or ACT) and SAT II scores. For details, refer to *Introducing the University* at [http://www.uclal.edu/pathways/infoctt/](http://www.uclal.edu/pathways/infoctt/).

**Examination Requirement**

All freshman applicants must submit scores from the following tests:

1. Either the ACT composite score OR the SAT I: Reasoning Tests total score
2. Three SAT II: Subject Tests which must include a. Writing AND b. Mathematics, level 1 or 2, AND c. One additional test (either English literature, foreign language, science, or social studies)

The tests should be taken by the December test date, as they are part of the review process. Students should request that test results be sent directly to UCLA when they take each test.

**ADMISSION SELECTION**

Many elements are considered in the selection process, but the primary ones are (1) academic grade-point average, (2) scores on the SAT I or ACT and the three required SAT II tests, (3) quality, content, and level of coursework throughout the entire high school program, including the senior year, and (4) number of and performance in honors and advanced placement (AP) courses.

Freshman applicants who are admitted must have an official, final high school transcript (showing the date of graduation) sent to UCLA. Sixth or seventh semester transcripts are not required.

**ADMISSION AS A TRANSFER STUDENT**

Students are considered transfer applicants if they have been a registered student (1) at another college or university or (2) in college-level extension courses. (This does not include attending a summer session immediately following high school gradua-
tion.) 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 review, integrating all available information. Students attaining senior standing are generally not admitted.

Academic criteria are as follows: 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) or UCLA general education requirements. Applicants who have completed the English composition and mathematics requirements in their academic program and who have 90 transferable quarter units by the time they enroll in the University receive priority admission consideration.

For details on transfer admission requirements, refer to the guidelines in the application. See http://www.admissions.ucla.edu/prospect/Adm_tr/tradms.htm.

INTERCAMPUS TRANSFERS

Undergraduate students registered in a regular session at any campus of the University (or those previously registered who have not since registered at any other school) may apply for transfer to another campus of the University. Submit the UC Application for Undergraduate Admission and Scholarships with the required application fees. The filing periods 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.

TRANSFER CREDIT AND CREDIT BY EXAMINATION

The University awards unit credit to transfer students for certain courses completed at other accredited colleges and universities. To be accepted for credit, the courses must be comparable to those offered at the University, as determined by UARS. 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 $\times 1.5 = 18$ quarter units.

College credit for examinations given by national testing services is generally not allowed, except for the AP Tests given by the College Board and the International Baccalaureate. See http://www.admissions.ucla.edu/Prospect/APCredit.htm.

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 which 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. To demonstrate that command, they are required to take the UCLA English as a Second Language Placement Examination (ESLPE) before 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 English as a second language courses. In addition, they are advised to take the Test of English as a Foreign Language (TOEFL) as a preliminary means of testing their ability. Make arrangements for this test by contacting TOEFL/TSE Publications, P.O. Box 6151, Princeton, NJ 08541-6151 (609-771-7100) or at http://www.toefl.org. Have the test results sent directly to the UCLA Office of Undergraduate Admissions and Relations with Schools.

SECOND BACHELOR’S DEGREE

By policy, second bachelor’s degrees are not generally granted, except in the School of Nursing.
Registration

Enrollment and Degree Services
1113 Murphy Hall
(310) 825-1091
http://www.registrar.ucla.edu

Registration consists of paying fees and enrolling in classes.

1. Registration fees and other University charges are due the 20th of each month. Billing and Receivable (BAR) accounts can be viewed through URSA.

2. Enrollment in classes is completed via URSA at http://www.ursa.ucla.edu.

Students must complete both processes by the established deadlines to be officially registered and enrolled for the term.

Paying Fees

Details on fee payment, enrollment procedures, and deadlines are in the Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

EBill

BAR accounts are administered electronically (eBill) through URSA. Monthly financial activity is displayed as well as past account activity for the last six months. URSA also provides a link to the Student Accounting website (http://www.studentaccounting.ucla.edu) where students can find important communications from the university regarding registration and university policies. Students can pay their BAR account electronically using Visa, MasterCard, or Discover Card. Students can also print out a remittance document from the eBill webpage and mail in payments with a check or money order.

AutoPay

Students can sign up for AutoPay and have their BAR account balances automatically paid by credit card. Credit cards are charged around the fifth of each month, and payments posted to BAR can be viewed through URSA on the eBill webpage.

Paper BAR

Students may request to have a paper BAR statement sent. A paper BAR statement is generated each month if the unpaid balance due is $25 or more. To request a paper statement, students must go in person to the Student Accounting Office, located at B303 Murphy Hall. Paper statements are mailed after the first of each month and may be paid by check of money order or by Visa, MasterCard, or Discover Card.

Annual Undergraduate Fees

Although the exact cost of attending UCLA varies, there are some fees that all UCLA students must pay.

Each entering and readmitted student is required to submit a Statement of Legal Residence to Undergraduate Admissions and Relations with Schools (UARS) with the Statement of Intent to Register. Legal residents of California are not required to pay tuition. Students classified as nonresidents must pay annual tuition in addition to registration fees. For a definition of residence and nonresidence, see the Appendix.

<table>
<thead>
<tr>
<th>Fees for 2003-04</th>
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</thead>
<tbody>
<tr>
<td>University registration fee</td>
<td>$ 713.00</td>
</tr>
<tr>
<td>Educational fee</td>
<td>3,121.00</td>
</tr>
<tr>
<td>Ackerman Student Union fee</td>
<td>7.50</td>
</tr>
<tr>
<td>Undergraduate Students Association fee</td>
<td>100.02</td>
</tr>
<tr>
<td>Wooden Recreation Center fee</td>
<td>39.00</td>
</tr>
<tr>
<td>Seismic fee for Ackerman/Kerckhoff</td>
<td>113.00</td>
</tr>
<tr>
<td>Student Health Insurance Plan</td>
<td>522.00</td>
</tr>
<tr>
<td><strong>Total for California residents</strong></td>
<td><strong>$4,615.52</strong></td>
</tr>
<tr>
<td>Nonresident educational fee</td>
<td>3,491.00</td>
</tr>
<tr>
<td>Nonresident tuition</td>
<td>12,480.00</td>
</tr>
<tr>
<td><strong>Total for nonresidents</strong></td>
<td><strong>$17,465.52</strong></td>
</tr>
</tbody>
</table>

Fees are subject to change without notice. See http://www.registrar.ucla.edu/fees/ for updates.

Course Materials Fees

The College of Letters and Science and each school are authorized to assess course materials fees. Some course materials 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 this time. All students in a course with an approved course materials fee are assessed the fee, regardless of major. The fee is nonrefundable. Students who are approved for a Late Add enrollment in a course after the fourth week are required to pay the course materials fee, which is billed through the BAR statement, for the entire quarter.

For fee amounts and updates, see http://www.registrar.ucla.edu/fees/.

Miscellaneous Fees

Miscellaneous fees include charges for late registration fee payment. Late fees also apply if students file their Study List late or do not pay off BAR 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. A full list of
miscellaneous fees is posted at http://www.registrar.ucla.edu/fees/miscfee.htm.

**Student Health Insurance Plan**

All UCLA undergraduate students are automatically assessed for and enrolled in the Undergraduate Student Health Insurance Plan (USHIP) as a condition of registration at UCLA. Continued enrollment in adequate medical/health insurance must be maintained during all registered terms.

The USHIP fee is billed each term along with other UCLA fees. USHIP fulfills all of the requirements mandated for adequate medical/health insurance as defined by the University. The Ashe Student Health and Wellness Center is the primary health care provider for USHIP and is where all nonemergency medical care must be initiated for USHIP claim payment consideration. See http://www.studenthealth.ucla.edu.

**Waiving Out of USHIP**

Students may waive out of USHIP if they (1) maintain active enrollment in an adequate medical/health insurance plan that meets all established requirements, (2) apply for a USHIP waiver within established deadlines, and (3) correctly complete the online USHIP waiver form.

Students must apply for a USHIP waiver online. See the Ashe Center website for details, including a definition of qualifying adequate private medical/health insurance. Follow the Online Services link from http://www.studenthealth.ucla.edu.

**Deadlines for Waiving Out of USHIP**

Third party individuals may not waive out of USHIP for another student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. Deadlines are strictly enforced.

The schedule for waiving out of USHIP is as follows:

- **Fall Quarter**: September 1-20
- **Winter Quarter**: December 1-20
- **Spring Quarter**: March 1-20
- **Fall Semester**: August 1-20
- **Spring Semester**: December 1-20

The above information serves as official notice of the UCLA mandatory medical/health insurance requirement. All students are responsible for providing complete and accurate information that must be submitted by the stated deadlines.

**Hepatitis B Vaccination Requirement**

The California State Legislature requires as a condition of enrollment that students 18 years and younger take the hepatitis B vaccination series. The vaccine is given in three doses. The second dose is given one month after the first, and the third is given five months after the second. Students who have not had the vaccine should start the series before their first term begins. Because this is a state requirement, students who have not completed the immunization series by the time their third term begins will not be allowed to enroll.

Students who have already been immunized may fill out the form at https://www.studenthealth.ucla.edu/hepb/hepbreq.asp.

**Fee Refunds**

Students who formally withdraw from the University may receive partial refunds of fees. For information on withdrawal, see the Academic Policies section of this catalog. Consult the *Schedule of Classes* for exact refund amounts and dates.

**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 the University 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 approved for enrollment in 10 units or less by the dean of their program—may be eligible for a one-half reduction in the educational fee.
reduction is based on total units enrolled as of Friday of the third week of classes.

File a Request for Fee Reduction 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 the University registration, educational, student union, or Undergraduate Students Association fee.

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

Full-time University employees may apply for a reduction of the registration and educational fees at their Campus Human Resources office. Students who use the part-time fee reduction may not also use the UC employee reduction.

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 choose courses and formulate a schedule tailored to their academic interests or degree objectives.

The Orientation program takes new students through a step-by-step process designed to insure that they enroll in an effective program.

The online Schedule of Classes contains listings of class times, meeting rooms, instructors, and all information necessary for enrolling in classes. Use the Schedule and academic counseling to assemble a program of courses.

URSA ENROLLMENT

Students enroll in classes through University Records System Access (URSA), which is accessed online at http://www.ursa.ucla.edu. For most students, URSA OnLine is the easiest way to enroll in classes and gain real-time access to academic, financial, and personal records. The site walks students through the enrollment procedure.

Students are assigned specific times—called appointments—when they are allowed to enroll. Use URSA to determine enrollment appointments.

Also use URSA for other enrollment-related tasks, such as adding, dropping, or exchanging classes, signing onto the wait list for a class, or changing the grading basis for a class. For more information, see the URSA and Enrollment sections of the Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

IN-PERSON ENROLLMENT

For classes that require written approval or specialized processing, students may enroll in person at 1113 Murphy Hall Monday through Friday from 9 a.m. to 5 p.m.

STUDY LIST

A Study List is the record of courses a student is enrolled in 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 URSA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on URSA 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 via URSA. Some changes require an Enrollment Petition—along with approval signatures—which is available for purchase in the UCLA Store.

See Enrollment in the online Schedule of Classes 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.

CONCURRENT ENROLLMENT

Concurrent enrollment—defined as taking courses during regular sessions for credit at UCLA and, at the same time, at another college 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

At the discretion of the appropriate campus authorities on both campuses, California Senate Bill 361 allows undergraduate students enrolled in any campus of the California community colleges, the
California State University, or the University of California to enroll without formal admission in a maximum of one course per academic term at a campus of either of the other systems on a space-available basis. 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 residence 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
Undergraduates 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. UCLA students obtain applications from Enrollment and Degree Services, 1113 Murphy Hall. Observe the deadlines on the application. Applications are reviewed by a student’s College or school. Letters and Science students should consult Letters and Science Counseling Services in A316 Murphy Hall; students in Arts and Architecture should contact the Student Services Office in 194 Kinross South; Theater, Film, and Television students should consult the Student Services Office in 103 East Melnitz Building; Engineering students should contact the Office of Academic and Student Affairs in 6426 Boelter Hall.

SIMULTANEOUS UC ENROLLMENT
Undergraduates 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 GE 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, A311 Murphy Hall; student athletes, Morgan Center; AAP students, 1209 Campbell Hall; all other Letters and Science students, Letters and Science Counseling Office, A316 Murphy Hall; Arts and Architecture, Theater, Film, and Television, Engineering and Applied Science, and Nursing students, their respective Student Affairs Office.

FINANCIAL SUPPORT
Financial Aid Office
A129J Murphy Hall
(310) 206-0400
http://www.fao.ucla.edu

The deadline for filing all undergraduate financial aid applications is March 2 (or the Friday before that date if March 2 falls on a weekend). Applications received after the deadline are only considered if funds are still available.


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.

No financial aid can be awarded to international students in their first year of attendance at UCLA.

To qualify for aid, students must also comply with minimum progress standards, which set unit and grade-point average requirements as defined in the Appendix of this catalog.

Free Application for Federal Student Aid
To evaluate financial need, all students who apply for need-based 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. The University 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 FAFSA.

Students should complete the FAFSA online at
Prospective Students
In addition to using the FAFSA to apply for aid, prospective students who apply to UCLA with the UC Application for Undergraduate Admission and Scholarships may use the application to apply for undergraduate scholarships.

Continuing Students
Continuing students may access their FAFSA renewal applications on the web at http://www.fafsa.ed.gov beginning in January and should complete them by March 2 for on-time consideration. International students can obtain their applications for aid from the Financial Aid Office beginning in January.

TYPES OF FINANCIAL AID
The four basic types of aid are scholarships, grants, loans, and work-study employment. Since most students are eligible for several of these, the Financial Aid Office usually offers a combination.

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 FAFSA. Most scholarships are merit based, while grants, loans, and work study are generally need based.

Scholarships do not have to be repaid. The Undergraduate Scholarship Program at UCLA rewards academic excellence and assists with the expenses of an undergraduate education.

Financial need is required only for University and name (endowed) scholarships other than those listed below. Each year approximately $300,000 is awarded from the many different scholarship funds. Awards range from $100 to $2,000 and are not renewable. Students must reapply each year for continued consideration.

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 receive a yearly stipend to cover the amount of their need. Regents Scholars also receive special privileges.

National Merit Scholarships
UCLA sponsors a number of four-year scholarships for entering freshmen who are finalists in the National Merit Scholarship competition. Finalists who are admitted to UCLA must select UCLA as their institution of choice and must meet UCLA’s scholarship criteria in order to receive a UCLA Merit Scholarship. Awards range from $500 to $2,000.

UCLA Alumni Association Scholarships
Alumni Scholarships are available to California high school graduates who will be UCLA freshmen in the Fall Quarter and to community college transfer students with a 3.75 GPA. Students should have demonstrated leadership ability, be involved in extracurricular activities, and show academic excellence and promise. Alumni Scholarships are merit based and competitively awarded. Freshman award amounts range from $4,000 to $12,000 and are paid over four years; transfer awards are $2,000 each and are paid over two years. Annual renewals require a combination of 30 hours of service annually to UCLA and the Alumni Association.

The Dr. Ralph Bunche Freshman Scholarship Awards, also presented by the UCLA Alumni Association and named in honor of the Nobel Peace Prize laureate and UCLA alumnus, are given to students from historically underrepresented communities and award amounts range from $4,000 to $12,000. Awards are paid over four years; annual renewals require a combination of 30 hours of service annually to UCLA and the Alumni Association.

In addition to the monetary awards, Alumni Scholars receive special privileges. Recipients who receive work study or loans as part of a financial aid package receive additional alumni grant monies. For more information, see http://www.UCLAlumni.net.
ROTC Scholarships

ROTC Scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income and provide tuition, a book allowance, fees, and a tax-free monthly allowance during the academic year. Obtain applications for four-year scholarships by calling—Army, (310) 825-7381; Air Force, (310) 825-1742; Navy/Marine Corps, (310) 825-9075—or by writing to Armed Forces Opportunities, P.O. Box 2865, Huntington Station, NY 11746-2102. When writing, specify if the scholarship is desired for Army, Air Force, or Navy/Marine. Applications for Army scholarships can also be obtained by calling (800) 872-7682. Completed applications should be submitted by August 15 (Air Force and Navy/Marine Corps) or by November 15 (Army) or for early consideration, but no later than December 1 (all services) of the year preceding college matriculation. Two-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 citizens or eligible noncitizens and who have not earned a Bachelor’s degree. Amounts for 2002-03 range from $400 to $4,000. 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.

Cal Grants A and B

California residents who have not completed more than nine quarters or six semesters of college work prior to September 2002 are eligible to apply for a California Student Aid Commission Cal Grant award. The FAFSA 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 will 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.

State University Grants

State grants provide eligible on-time applicants with financial assistance from state funds. Awards range from $100 to $9,000 and are based on student need. All undergraduate students who are citizens or eligible noncitizens are considered.

Federal Supplemental Educational Opportunity Grants

Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to undergraduates 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 students 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. The University makes every effort to assist students during the repayment of their obligation, but University 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 attend a debt management session before funds are released.

All loan recipients must come to the Student Loan Services Office (A227 Murphy Hall) for a loan exit interview 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, the University places a hold on their academic records and registration materials. Call for an interview before graduating, transferring, or withdrawing from UCLA. ☎ 310-825-9864

Federal Perkins Loans

Low-interest Federal Perkins loans are awarded to eligible, on-time applicants who are U.S. citizens or eligible noncitizens. The loan limit per academic year is $4,000 for undergraduate students and $6,000 for graduate and professional students. The actual award amount may be less, based on annual funding and UCLA’s institutional awarding policy. The loan interest rate is 5 percent. Loan repayment and interest accrual begins six or nine months after graduation or dropping below half-time enrollment.

Federal Family Education Loan Program

Federal Stafford Loans

Federal Stafford Loans are low-interest subsidized and unsubsidized loans financed by participating banks and other lending institutions. Loans are
available to undergraduate, graduate, and professional students who are U.S. citizens and eligible noncitizens. The variable interest rate is adjusted annually. Loan repayment begins six months after graduation or dropping below half-time enrollment.

Subsidized Federal Stafford Loans are awarded to students who have demonstrated need. Interest is paid by the federal government until six months after the student leaves school or drops below half-time enrollment.

Unsubsidized Federal Stafford Loans are available to all students 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.

**Federal Parent Loans for Undergraduate Students**

Federal Parent Loans for Undergraduate Students (PLUS) are designed to help parents meet the total cost of education. Parents may be eligible to borrow up to the cost of a student’s education for the academic year less any other financial aid received. This loan is available only to parents who do not have adverse credit histories. The interest rate is variable and adjusted annually. Parents may want to consult a tax adviser to see if this interest is tax deductible.

**Private Loans**

Private loans are available to students who have received the maximum award amounts under the Federal Family Education Loan Program and require additional funding. These loans are sponsored by banks and private lending institutions. Interest rates and repayment schedules vary. These loans must be certified by the Financial Aid Office before funds can be disbursed.

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**WORK-STUDY PROGRAM**

The Federal Work-Study Program (FWS) is intended to stimulate and promote part-time student employment, particularly for those 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 for the University, government agencies, or public and private non-profit agencies. Students employed through FWS provide essential services to the University and community, and have the opportunity to hold jobs that may relate to their educational objectives or enable them to gain valuable work experience.

**Emergency Educational Loans**

Students need not be receiving financial aid to apply for emergency loans. 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 Student Loan Services Office, A227 Murphy Hall.

**MAJORS AND DEGREES**

Students may choose from over 121 majors in a wide variety of disciplines offered through the undergraduate degree programs of the College of Letters and Science, School of the Arts and Architecture, Henry Samueli School of Engineering and Applied Science, School of Nursing, and School of Theater, Film, and Television. For a complete list of major programs and degrees, see the table in the front of this catalog.

**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 for Change of Major at the College or school office. There is no fee for the petition.

**INDIVIDUAL MAJORS**

Highly motivated students who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit. Requirements for individual majors vary among the College and schools.

**CHANGING MAJORS**

Changing majors requires the approval of the College or school and the department. To change majors, obtain a Petition for Change of Major at the department office.

**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 three types of requirements for a degree:

1. University requirements
2. College or school requirements
3. Department requirements

**UNIVERSITY REQUIREMENTS**

The University of California has established two requirements that all undergraduates must satisfy in order to graduate: Subject A 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.

**SUBJECT A**

Because proficiency in English composition is so important to successful performance in many courses, Subject A 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

1. Scoring 3, 4, or 5 on one of the College Board Advanced Placement Tests in English OR
2. Scoring 680 or better on the SAT II Subject Test in Writing OR
3. Presenting transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution OR
4. Passing the Subject A Examination (all freshmen from California high schools should have taken the Universitywide Subject A 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 either English Composition A or 2 (determined by performance on the Subject A Examination) or 2I (determined by performance on both the Subject A and ESLPE) as early as possible during their first year in residence. Each course must be taken for a letter grade and passed with a grade of C or better. Students receiving a final grade of C− or less must repeat the course during their next term in residence. Satisfaction of the Subject A requirement is a requisite to English Composition 3 and all subsequent English courses.

**ENGLISH AS A SECOND LANGUAGE**

The English as a Second Language Placement Examination (ESLPE) is required of all entering UCLA students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement. 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 ESLPE. Undergraduate students may take the ESLPE once only. Unauthorized retakes of the examination result in an invalid examination score.

Nonnative-speaking first-year students who have taken the Subject A Examination are evaluated on the basis of their Subject A composition and informed if they need to take the ESLPE before the term in which they are to register. Failure to take the ESLPE results in a hold on student records. Results of the ESLPE and the Subject A Examination are reviewed to determine which track (Subject A or ESL) is a more appropriate placement. Students placed in the Subject A track may satisfy the Subject A requirement by following the guidelines listed above. If students are placed in the ESL track,
they must complete the requirement by taking the designated courses through the ESL track. Nonnative-speaking transfer students with grades of B or better in the English Composition 3 and English 4 equivalent courses at their transfer institution are exempt from the ESL requirement. Other students must take the ESLPE and may be required to take one or more ESL courses beginning in their first term in residence at UCLA to satisfy the ESL requirement.

Results of the ESLPE are used to determine placement into the required sequence of ESL courses or exemption from the ESL requirement. In the case of a nonpassing score on the examination, students are placed in one or more of the credit-bearing courses—English as a Second Language 33A, 33B, 33C, and 35. Students must begin taking courses during their first term in residence at UCLA and must complete the courses in sequence with grades 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. Certain ESL courses fulfill major prerequisite requirements and provide upper division elective units.

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 requirement in American History and Institutions by one of the following methods:

1. Completing a year's 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 OR
2. Completing any one of the following UCLA courses with a grade of C or better, or a grade of Passed:
   - Asian American Studies M153
   - Chicana and Chicano Studies M159A, M159B, M183
   - Economics 183
   - Geography 136
   - 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 OR
3. Presenting a satisfactory result of the requirement, by examination, as administered at another college or university within the state OR
4. Scoring 500 or better on the SAT II Subject Test in American History OR
5. 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 151A, 151B, Political Science 145B, or 145C.

Students attending the University 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 6248 Bunche Hall. ☎ 310-825-3720

COLLEGE OR SCHOOL REQUIREMENTS
The College and each school with undergraduate programs establish their own degree requirements. These generally include a (1) unit requirement, which defines the total number of units to be completed, (2) scholarship requirement, which defines a minimum grade-point average, (3) residence requirement, which defines the amount of study that must be undertaken in residence at the UCLA campus, and (4) course requirements, which may include general education courses, reading and composition courses, foreign language courses, and core courses for the field of study. See the College and
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 (1) preparation for the major, which are lower division courses designed to prepare students for advanced study and (2) the major, which are upper division course requirements. Requirements for each department are listed in the Curricula and Courses section of this catalog.

DEGREE POLICIES

Students are responsible for degree policies and regulations as described in the Academic Policies section of this catalog.

UNDERGRADUATE RESEARCH

UNDERGRADUATE RESEARCH CENTERS

The Undergraduate Research Centers (URC) assist students in the humanities and social sciences (2211 Campbell Hall, 310-825-2935) and in the life and physical sciences (2121 Life Sciences, 310-794-4227) by supporting scholarly, critical, and creative research. The centers provide mentoring and tutorials, house the Student Research Program (SRP), and administer stipends and scholarships. They also sponsor the Student Research Program and two student-run publications—the Undergraduate Science Journal and Westwind, A Journal of Undergraduate Research and Writing; organize campuswide conferences and events; and coordinate the Summer Research Institute (SRI), which promotes a broader and deeper understanding of university research and helps entry-level student researchers define their place in the larger research community. See http://www.college.ucla.edu/ugresearch/index.html.

STUDENT RESEARCH PROGRAM

Administered by each Undergraduate Research Center, the Student Research Program offers undergraduates, especially lower division and first-year transfer students, opportunities to become actively involved in the University 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 Honors Collegium 99 and receive 1 unit of course credit for each 50 hours of research completed during the quarter. See http://www.college.ucla.edu/ugresearch/research/srp.html.

RESEARCH DEVELOPMENT STIPENDS

Undergraduate Research Development Stipend (URDS) awards are available on a competitive basis and by application for undergraduate students who have financial need and who want to participate in two terms of research through SRP. The commitment to the SRP project is for Winter and Spring Quarters, and stipends are set at $1,000 per term. Applications are accepted during Fall Quarter only, and the deadline for submission of applications is late November.

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 only.

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 independent studies 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.

CENTER FOR ACADEMIC AND RESEARCH EXCELLENCE

The Center for Academic and Research Excellence (CARE) provides enrichment opportunities for students majoring in the sciences, engineering, and mathematics who seek careers in scientific research and teaching and whose success through graduate training will increase the numbers of historically underrepresented individuals in academic and technological fields. CARE offers a variety of research opportunities during the academic year and summer that provides students the financial support to dedicate themselves to research. CARE programs, many
sponsored by grants through federal agencies such as the National Institutes of Health (NIH) and the National Science Foundation (NSF), are for UCLA students as well as students from other universities. Offices are in 2121 Life Sciences. See http://www.care.ucla.edu.

INTERNSHIPS AND SERVICE

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

QUARTER IN WASHINGTON, D.C.

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 UCLA courses with research and field experience. Students live in Washington for up to 12 weeks, dividing their time between courses taught by UC faculty and a part-time field placement. They are registered as UCLA students and earn credit for all classes taken. The core course is multiple-listed in political science and sociology, and meets the capstone requirement for the policy studies minor. At least one course in a subject other than political science, such as economics or history, is offered each quarter. All courses take advantage of Washington's unique resources for study and research.

Center administrators help students find a field placement, which is central to a research seminar each student takes, in a Washington organization. Placements have included ABC News, the Brookings Institute, CNN, the Department of Justice, the Kennedy Center, Studio Theatre, the Center for Strategic and International Studies, various members of Congress, and the White House. For information, contact the CAPPP Office in 4250 Public Policy Building or e-mail cappp@issr.ucla.edu. See http://www.cappp.ucla.edu. ☎ 310-206-3109

SERVICE LEARNING

The Center for Experiential Education and Service Learning (CEESL) enhances undergraduate education by providing opportunities to participate in "experiential" learning. In courses supported by CEESL, students work outside the classroom at internships or public service positions. They participate in their communities and gain insights into a range of professional fields, while applying and testing academic theories. CEESL is located in 160 Powell Library. See http://www.oid.ucla.edu/Ceesl/. ☎ 310-825-7867

Placements are available in the form of internships or short-term projects such as community service work, local industry and business positions, and out-of-state opportunities. Students combine service experiences with research and writing to receive academic credit. For example, a CEESL student interning at a talent agency researched and wrote a paper on racial stereotypes in the acting profession; a student working with ESL students at an elementary school wrote a paper on the politics of English-only legislation and its impact on teaching; students volunteering at a health clinic researched and produced educational pamphlets on AIDS prevention in Russian and Armenian for recent immigrants in the community.

SUPPORTED COURSES

Every term CEESL supports unique courses that incorporate community work with course readings, lectures, and discussions. The courses and seminars create opportunities for students to work with an instructor and to interact with their peers in a structured environment. Courses supported by CEESL are mainly for upper division students. Lower division students may participate in courses that offer a
portion of course credit for community service and fieldwork.

Upper division students looking for a more intensive service or field experience may enroll in immersion programs or in sequential courses. Immersion programs are structured around a block of courses with focus on the study and observation of a single topic (for example, social and cultural stigma). They require a full-time commitment for one or two terms, for which students earn 12 to 16 units per term. The Developmental Disabilities Immersion Program (DDIP) and Sociology Immersion Quarter (with changing themes) are two long-standing immersion programs. Sequential courses are taken consecutively for two or three terms. Students receive prefield training during the first term and conduct service and research in subsequent terms.

Students may also design individualized service learning and internship projects to meet their specific academic, personal, and career goals. These are organized through individual studies courses (199 or 199I), in which a CEESL graduate student coordinator helps students develop suitable projects, secure field placements, and identify faculty sponsors.

The deadline for enrollment in CEESL supported courses is the end of the second week of the term.

COMMUNITY SERVICE AND INTERNSHIP SITES

All CEESL participants need to secure academically viable placement sites. Hundreds of local and national opportunities are listed in 160 Powell Library and at EXPO Internship and Study Abroad Services. Students may also initiate contact with a site on their own. However, all community service and internship placements must be approved by a CEESL coordinator.

INTERNSHIP AND STUDY ABROAD SERVICES

Internship and Study Abroad Services, a branch of the UCLA Career Center, offer access to a variety of off-campus learning experiences. Offices are in 200 Strathmore Building. See http://www.career.ucla.edu/explore/intern/. ☎️310-825-0831

NATIONAL INTERNSHIP PROGRAM

The Washington, D.C. program allows students to do fall, winter, spring, and summer ten-week internships. Internships are available with elected officials, government agencies, public interest groups, international organizations, the media, and a wide range of public and private enterprises. In Sacramento, internships are available only in the summer. Stipends, loans, scholarships are available to students through the program.

LOS ANGELES INTERNSHIP PROGRAM

Local internships are available throughout the year in fields such as advertising, business, film, media, and politics.

INTERNATIONAL OPPORTUNITIES

The Internship and Study Abroad office advises students on study, travel, volunteer, international internship, and short-term work opportunities outside the U.S., offering information on overseas study programs open to UCLA students. The office maintains a library of current materials related to study, travel, and other opportunities abroad.

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 (GSEIS), which helps coordinate programs leading to various instructional credentials or to graduate study.

DIVERSIFIED LIBERAL ARTS PROGRAM

The Diversified Liberal Arts Program prepares students for elementary teaching degrees while they complete a major in the College. The program is described in the Curricula and Courses section of this catalog.
For information, contact Letters and Science Counseling Services, A316 Murphy Hall. See http://www.college.ucla.edu/up/dlap/.

**Education Studies Minor**

The Education Studies minor provides an introductory course sequence for students who might want to pursue a career in education. The program office is in 1009 Moore Hall. See http://www.gseis.ucla.edu/edminor/.

**Mathematics/Education Program**

The Mathematics/Education Program allows mathematics majors interested in middle and high school teaching to observe and tutor in classrooms in the Los Angeles area and to begin teacher-education courses. After graduation, they teach for a full year under an emergency teaching credential and may work toward a master’s in education and a teaching credential in one academic year and two summers beyond the baccalaureate. For details, e-mail Dr. Arlene Russell at russell@chem.ucla.edu or contact any science department undergraduate counseling office. See http://www.nslc.ucla.edu.

**Science Education Program**

The Science Education Program, cosponsored by the College and GSEIS, allows science majors to observe and participate in classrooms in schools in the Los Angeles area and to begin teacher education courses. Students earn a master’s in education and a teaching credential in one academic year and two summers beyond the baccalaureate. For details, see UCLA Center X at http://www.centerx.gseis.ucla.edu/TEP/.

**Teacher Education Program**

The Teacher Education Program allows students to obtain both a Master of Education degree and a Bilingual Cross-Cultural Language Academic Development credential (CLAD or BCLAD) in a full-time, two-year program that provides clinical classroom experience. For details, see UCLA Center X at http://www.centerx.gseis.ucla.edu/TEP/.

**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 provided. The programs provide a monthly stipend in the junior and senior years, and additional financial aid is available to qualified students. Individual programs are described in the Curricula and Courses section of this catalog.

**Lower Division Seminar Programs**

**Collegium of University Teaching Fellows**

The Collegium of University Teaching Fellows (CUTF) permits the finest UCLA advanced graduate students 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 further information, contact the Office of Instructional Development in 60 Powell Library. See http://www.oid.ucla.edu/Cutf/.

☎ 310-825-5467
HONORS COLLEGIUM

The Honors Collegium 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. See http://www.college.ucla.edu/up/honors/honorscollegium.html.

FIAT LUX SEMINARS FOR FRESHMAN STUDENTS

In 2002-03, UCLA established a program of innovative freshman seminars. The one-unit seminars, taught by faculty in areas of their expertise, span the rich array of disciplines studied at UCLA. The seminars inform freshman students about topics of intellectual importance and enable them to participate in critical discussion of these topics with a small group of peers and faculty. Since the seminars illuminate the many paths of discovery explored by UCLA faculty, the new program takes its name from the motto of the University of California: Fiat Lux – Let There be Light! See the Schedule of Classes for details about scheduling each term at http://www.registrar.ucla.edu/schedule/.

PROFESSIONAL SCHOOLS SEMINAR PROGRAM

The Professional Schools Seminar Program (PSSP) offers seminars that explore topics bridging various academic disciplines and professional practice. Students seeking to define their own academic and career goals gain valuable exposure to (1) research frontiers in the professions, (2) policy and ethical issues, and (3) historical and sociological perspectives on professional practice.

Seminars are offered Fall, Winter, and Spring quarters. Enrollment is limited to allow close contact with professional school faculty members; lower division students are preferred. Students must satisfy the Subject A requirement before enrolling in these seminars. GE and honors credit is granted for most seminars. For information, contact the PSSP Office in A265 Murphy Hall. See http://www.college.ucla.edu/up/pssp/ or send e-mail to pssp@college.ucla.edu. ☎ 310-267-5430; fax 310-206-2175

ADVISING AND ACADEMIC ASSISTANCE

Academic assistance is available in the form of staff and student counselors, faculty advisers, services, tutorials, and special programs.

ORIENTATION

Orientation introduces students to UCLA campus life through special programs offering students academic counseling and educational planning. 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 University life and fulfill the advising requirements of the College or school. Sessions for family members are also offered.

During the summer, Orientation offers 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. For more information, contact the Orientation Office in 201 Covel Commons. See http://www.orientation.ucla.edu. ☎ 310-206-6685

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. See the Schedule of Classes for a listing of counselors and advisers.

ASK PEER COUNSELORS

The ASK Peer Counseling Program is an extension of Letters and Science Counseling Services. ASK peer counselors are College undergraduates trained to provide counseling and respond to student questions and concerns in convenient walk-up settings. No appointments are required. Counselors provide petitions, give directions, make referrals, and bridge the gap between campus life and the College office in Murphy Hall.

Students can find ASK counselors weekdays when school is in session at various locations across campus. For details about locations and operating hours, see http://www.college.ucla.edu/ASK/ASK_where/where.htm. Students may also e-mail questions to ASK@college.ucla.edu.

COUNSELING ASSISTANTS

Letters and Science counseling assistants (CAs) are graduate students who help lower division students with course selection, major requirements, and graduate school information. Many CAs serve as teaching assistants and can give unique perspectives on courses and faculty. For information, see the link from http://www.college.ucla.edu/up/counseling/.

For appointments, go to Window 1, A316 Murphy Hall. CAs are also available in selected departments and online through http://my.ucla.edu.
ACADEMICS IN THE COMMONS

Academics in the Commons, home to Covel Tutorials, offers registered UCLA students academic success and pre-professional career planning workshops plus free individual and small-group tutoring aimed at developing academic skills and critical thinking. Programs are staffed by carefully selected and trained peer tutors and workshop leaders, and conveniently located in Covel Commons in Sunset Village. For details on all the tutorials below, see http://www.college.ucla.edu/up/aait/covel.html.

ACADEMIC WORKSHOPS

Academics in the Commons offers the Academic Workshop Program, which promotes academic success through a variety of workshops. For specific topics, dates, and times, see http://www.college.ucla.edu/up/aait/workshops.html. ☎ 310-825-1379

COMPOSITION AND ESL TUTORIALS

The Composition Tutoring Laboratory and UCLA Writing Programs offer individual assistance to students enrolled in English Composition A, 2, and 3 and to students writing papers for other UCLA courses. The laboratory is staffed by trained undergraduate peer tutors with outstanding ability in advanced composition who can help students at any stage of the writing process.

The ESL Tutoring Laboratory assists nonnative-speaking students with English grammar, idioms, pronunciation, listening comprehension, and composition. Priority is given to students enrolled in English as a Second Language 33A, 33B, and 33C, and other ESL courses. Most of the ESL tutors are graduate students pursuing degrees in teaching English as a second language.

Both the Composition and ESL Laboratories are in 228 Covel Commons. ☎ 310-206-1491

MATHEMATICS AND SCIENCES TUTORIALS

Mathematics and Sciences Tutorials provide an organized by-appointment tutorial program for most introductory courses in biology, chemistry, mathematics, and physics. Trained tutors meet in small group sessions on a weekly basis, teaching methods to improve problem-solving skills and test-taking strategies. Requests for tutors must be made during the first three weeks of the term; early registration is strongly advised. Drop-in tutoring is also offered. Schedules vary each term. The tutorials are in 228 Covel Commons. ☎ 310-206-6965

TUTORIALS FOR STUDENT ATHLETES

Tutorials for Student Athletes provide tutoring in the evening and on weekends for intercollegiate athletes whose practice and competition schedules prevent them from participating in other tutorial services. Eligible student athletes can receive regular or small group assistance in a wide range of courses, provided they request tutoring within the first four weeks of the term. Trained tutors clarify course content, teach study strategies and, in consultation with course instructors, develop problem-solving exercises and practice examinations to build learning and performance skills. The coordinator is in 209 Covel Commons. ☎ 310-206-8124

ACADEMIC ADVANCEMENT PROGRAM

The Academic Advancement Program (AAP), a multicultural program, has a threefold mission: (1) to ensure the academic success, retention, and graduation of its more than 5,500 students, (2) to increase the numbers of its students entering graduate and professional schools, and (3) to develop the academic, political, scientific, economic, and community leadership necessary to transform society in the twenty-first century. Programs are oriented toward furthering long-term academic and personal growth.

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 the AAP Office in 1232 Campbell Hall. See http://www.college.ucla.edu/up/aap/. ☎ 310-206-7777

ACADEMIC COUNSELING

Counselors at AAP encourage students to explore their talents, believe in themselves, and aspire to academic and personal excellence. Counselors, including two science counselors, work with students to plan their academic programs, monitor progress toward the degree, provide information about degree requirements, and discuss graduate school and career options. ☎ 310-825-1481

PEER COUNSELING

Peer counselors are upper division AAP students who assist entering students with the transition to the University and provide them with a perspective on life at UCLA.

TUTORIAL SERVICES

AAP tutorial services promote academic excellence in over 400 courses. Most tutors are upper division AAP students who provide the intellectual challenge, encouragement, and personal support that students need to recognize their own authority as thinkers and learners. Most tutoring is done in small groups that foster discussion and allow students to listen to and articulate new and different perspectives.
The Program Leading to Undergraduate Success (PLUS) is a federally funded component of AAP that provides intensive counseling, tutoring, workshops, and social and cultural programs for first-generation college, low-income freshmen. Applications are available at 1229 Campbell Hall. ☎ 310-825-9276

PUMP: Pre-Graduate, Pre-Professional Undergraduate Mentoring Program

AAP offers three different programs aimed at helping students achieve academic and professional goals.

Graduate Mentor Program

The AAP Graduate Mentor Program (GMP) is grounded in the belief that it is never too early, or too late, to prepare for graduate school. The primary goal of GMP is to increase the number of AAP students who enroll in graduate or professional schools.

Rosa Parks Program

The Rosa Parks Program for Community Development (RPP) assists undergraduate students interested in graduate and professional schools. RPP works with the schools of Public Policy and Social Research, Public Health, Law, and Medicine to increase their enrollment of AAP students committed to working toward social equity. Students work as interns, under the supervision of a professional staff member, at a community-based organization. ☎ 310-206-1557

Teachers for Tomorrow

Teachers for Tomorrow (TFT) aims to advance a new generation of socially conscious leaders interested in careers in education. It provides AAP students with opportunities to meet faculty and students in the Graduate School of Education and Information Studies and to get involved in community service programs, internships, and service learning courses. The Joseph Drown Scholarship Program works with AAP students who want to become teachers of mathematics or science. Students in the program work with teachers at local public schools as volunteers, receive a stipend of up to $3,000, and participate in educational roundtables. ☎ 310-206-1557

SUMMER PROGRAMS

Two six-week AAP academic summer programs—the Freshman Summer Program and the Transfer Summer Program—prepare students to succeed by exposing them to the rigor and demands of academic life and to undergraduate programs, services, and learning resources.

Students enroll in two University courses that meet UCLA requirements for graduation and receive personal attention, in either small groups or individual sessions, from teaching assistants and tutors. They are encouraged to live on campus and to participate in cultural and social events, interact with students of diverse backgrounds, build a network of friends, and broaden their life experiences and world outlook. ☎ 310-206-1571

ACADEMIC EXCELLENCE

Eligible students receive the following honors and awards in recognition of academic achievement.

Dean’s Honors List

The School of the Arts and Architecture, Henry Samueli School of Engineering and Applied Science, School of Nursing, and School of Theater, Film, and Television award Dean’s Honors to deserving students each term, and the deans of the four divisions in the College of Letters and Science award Dean’s Honors. Honors are based on the grade-point average attained within a specified number of units. Consult the College or school for further 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) University of California 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 section of this catalog. See the Schedule of Classes 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 consult their department for its requirements.

DEPARTMENTAL SCHOLAR PROGRAM
Departments in the College and each school, except the School of Nursing, 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 consult their departments well in advance of application dates for graduate admission (see the calendar at the beginning of this catalog).

HONOR SOCIETIES

Alpha Lambda Delta and Phi Eta Sigma
Membership in the national freshman honor societies is based solely on academic achievement during the freshman year. To be eligible students must have a 3.5 grade-point average with 12 graded University of California units in the first term of their freshman year, or a cumulative 3.5 GPA at the end of the second and/or third terms. Invitations are issued in Winter Quarter, and initiation is held during Spring Quarter. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall. See http://www.studentgroups.ucla.edu/aldpes/.
☎ 310-825-3871

Golden Key
Golden Key is an international interdisciplinary academic honors organization dedicated to excellence. Students qualify on the basis of objective academic criteria. No more than the top 15 percent of enrolled juniors and seniors may be eligible.

The society recognizes and encourages scholastic achievement and excellence in all undergraduate fields of study. It unites with collegiate faculties and administrators in developing and maintaining high standards of education, provides economic assistance to outstanding members by means of an annual scholarship for initiates and graduating seniors, and promotes scholastic achievement and altruistic conduct through voluntary service. Invitations are issued in Winter Quarter, and a reception is held during Spring Quarter. For further information, contact the Office of the Dean of Students, 1206 Murphy Hall. See http://www.studentgroups.ucla.edu/Goldenkey/.
☎ 310-825-3871

Mortar Board
Mortar Board is a national honor society for college seniors which 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 from the Center for Student Programming (105 Kerckhoff Hall) early in Winter Quarter and are due by mid-February. Approximately 40 members are selected each spring by the outgoing chapter. See http://www.studentgroups.ucla.edu/mboard/.
☎ 310-206-5523

Applications are also available from the Office of the Dean of Students in 1206 Murphy Hall. ☎ 310-825-3871

Phi Beta Kappa
Phi Beta Kappa is a national honorary 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 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 May, with the initiation 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. A Passed grade is computed approximately as a B, depending on number of courses taken and graded units. Students who are elected are notified by mail. For further information, contact Phi Beta Kappa in the Honors Programs Office, A311 Murphy Hall. See http://www.college.ucla.edu/up/honors/pbk.html.
☎ 310-206-9667
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 the classrooms, the laboratories, the libraries, in specialized seminars, through independent research, and in teaching experiences. Graduate education is enriched by several hundred postdoctoral fellows 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 doctoral degree (Ph.D., Ed.D., and so forth) is designed to prepare students for creative activity and original research, often in association with college or university teaching.

**GRADUATE ADMISSION**

Graduate Admissions/Student and Academic Affairs
1255 Murphy Hall
(310) 825-1711
http://www.gdnet.ucla.edu

Meeting the minimum requirements does not ensure graduate admission, which is limited by the number of places available in UCLA’s 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 in the Curricula and Courses section of this catalog.

**APPLYING FOR ADMISSION**

Prospective students may apply online at http://www.gdnet.ucla.edu.

Applications may be considered if received after a program’s stated deadline, provided the enrollment limits have not been exceeded.

**APPLICATION FEE**

A nonrefundable application fee is required when the application is submitted.

**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 B or better (or its equivalent if the letter grade system is not used) is required in the last two years of undergraduate coursework and in any postbaccalaureate study.

Requirements for international applicants are listed below.
SUPPORTING MATERIALS

Supporting papers and materials to be submitted, including official transcripts of record and the non-refundable application fee, are specified at http://www.gdnet.ucla.edu. Submitted materials are not returnable.

INTERNATIONAL APPLICANTS

International applicants who have completed their postsecondary education outside the U.S. are expected to hold a degree, with above average scholarship, from a university or university-level institution. If their examinations have been graded Excellent, Very Good, Good, and Pass, students must have at least a Very Good general rating to qualify for admission. Students 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 Institutes of Chartered Accountants, the Institute of Chartered Secretaries and Administrators, and so forth, also do not qualify for graduate admission unless they also hold recognized university-level degrees or titles.

Students should submit official transcripts of record, in duplicate, for all college and university work. Specific information for applicants from a variety of educational systems is available at http://www.gdnet.ucla.edu.

Proficiency in English

International students who hold a bachelor’s or higher degree from a university in a country where the official language is English and in which English is the spoken tongue and the medium of instruction are exempt from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) examination and the UCLA English as a Second Language Placement Examination (ESLPE). All other applicants must take the TOEFL, administered by the Educational Testing Service in some 95 foreign centers. The IELTS examination is administered by IELTS test centers throughout the world. See http://www.ielts.org for the nearest test center. TOEFL applications are available from TOEFL Services, P.O. Box 6151, Princeton, NJ 08541-6151 (609-771-7100) or at http://www.toefl.org.

Students whose native language is not English are required to take the UCLA English as a Second Language Placement Examination (ESLPE), in addition to the TOEFL or IELTS examination, before the term in which they are to register. Failure to sit for the ESLPE results in a hold on student records.

Those graduate students who believe that their initial ESLPE score is not reflective of their English language proficiency due to having recently arrived in the U.S. may sit for the examination a second time in the subsequent term only (retaking the examination in the same term is not counted as a valid result). In cases where students retake the examination in their second term of study, the most
recent examination score is held to be valid. Unauthorized retakes of the examination result in an invalid examination score. Depending on the ESLPE results, students may be required to complete one or more courses in the English as a Second Language 33 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. Students should expect to spend a longer period of time at the University than would normally be necessary to complete a degree program if they are required to take any English as a second language courses. If they do not achieve a minimum score on the ESLPE, their admission is deferred until they have acquired the necessary proficiency in English. Neither the TOEFL, nor IELTS, nor any other English proficiency test can be submitted or accepted in lieu of the ESLPE.

International students or permanent residents who are not native speakers of English, before they are allowed to serve as teaching assistants, must take and pass either the Test of Spoken English (TSE) offered at TOEFL Centers in their home countries or the SPEAK examination (institutional version of the TSE) on arrival at UCLA. They can “pass” with a score of 50 or “pass conditionally” with a score of 45 if they also are enrolled in an English as a Second Language oral skills course at UCLA. Students should consult with their departments to determine if they require a higher score.

Students who plan to serve as teaching assistants during their first term at UCLA must either take and pass the TSE before arrival or arrive on campus early enough to take the SPEAK examination before instruction begins. UCLA’s Office of Instructional Development (OID) conducts the SPEAK testing. For the examination schedule and other information, see http://www.oid.ucla.edu/TATP/speak.html. Students should also contact either their department or the TA Training Program. ☎ 310-825-3106

**Admission to the Schools of Dentistry, Law, and Medicine**

Applicants for M.S. and Ph.D. programs in departments of the School of Medicine or Dentistry should apply for admission to the Graduate Division as described above. For admission to D.D.S., J.D., and M.D. degree programs in the Schools of Dentistry, Law, and Medicine, consult the websites or write to the respective schools for information and application procedures.

**Admission to Programs in Molecular, Cellular, and Integrative Life Sciences**

The life and basic biomedical sciences departments at UCLA offer a mechanism for a combined recruitment, admission, and first-year program that provides Ph.D. students in the molecular, cellular, and integrative life sciences with maximal choice and flexibility in selecting a research specialization. Through UCLA ACCESS to Programs in Molecular, Cellular, and Integrative Life Sciences, students are able to select research projects from faculty mentors according to changing perceptions, interests, and goals without regard to traditional departmental boundaries. The first year of each degree program has a common curriculum and advising structure. The following Ph.D. programs use UCLA ACCESS to recruit and admit students: Biochemistry and Molecular Biology, Molecular Biology, Molecular, Cell, and Developmental Biology, and Molecular, Cellular, and Integrative Physiology in the College of Letters and Science; Biological Chemistry, Cellular and Molecular Pathology, Human Genetics, Molecular and Medical Pharmacology, Neurobiology, and Physiology in the David Geffen School of Medicine; Molecular Toxicology in the School of Public Health; and Microbiology, Immunology, and Molecular Genetics. For specific information, see the department listing in the Curricula and Courses section of this catalog.

**Admission**

Applicants apply to UCLA ACCESS rather than to an individual department and must have completed an undergraduate major in a life or physical sciences discipline with superior scholastic achievement. Students should have preparation in physics, biology, and chemistry, as well as specialized courses within the major which may include cell biology, neurobiology, immunology, structural or computational biology, microbiology, virology, plant molecular biology, developmental biology, biochemistry, or molecular biology. In certain cases, background deficiencies may be remedied concurrently with graduate studies if recommended by the UCLA ACCESS steering committee. In addition to the UCLA Application for Graduate Admission, students should submit their scores on the Graduate Record Examination (GRE) General Test (Subject Test is optional) and three letters of recommendation from individuals who can provide direct knowledge of their academic record and potential for superior achievement in independent research. Admission is limited to Fall Quarter.

Obtain applications and information from the Program Coordinator, UCLA ACCESS to Programs in Molecular, Cellular, and Integrative Life Sciences, 172 Boyer Hall, UCLA, Box 951570, Los Angeles, CA 90095-1570. See http://www.uclaaccess.ucla.edu. ☎ 310-206-5280

**First-Year Course Requirements**

Individual requirements vary based on background and scientific interest and are determined by the steering committee. In general a formal course of study consists of three lecture courses, three laboratory rotations, and three seminar courses. In addition, participation is required in related activities on an informal basis.
Three survey lecture courses to be selected from a list of approved courses maintained in the program office are required (one in molecular biology, one in cellular biology, and an elective in one of several areas). Students must enroll in one seminar course each term that includes reading and reporting on current research literature.

During their first nine months in residence, students rotate for one term each through three laboratories selected from the UCLA ACCESS faculty list. They enroll in a 500-level course for 6 units of credit for each rotation.

An additional course in ethics (Microbiology and Molecular Genetics CM234) is required.

All departments participating in UCLA ACCESS consider teaching experience to be an integral part of the graduate program. Students are required to complete two terms of teaching beginning in their second year. They are also required to complete a course on approaches and methods for successful teaching.

**Transfer to the Degree-Granting Program**

Students are admitted to UCLA graduate standing through UCLA ACCESS on a provisional basis for up to four terms. At the end of Spring Quarter, academic progress is evaluated by the steering committee. Students who receive a satisfactory evaluation select a faculty mentor as their doctoral committee chair. With concurrence of the mentor and the degree-granting program, students then transfer from UCLA ACCESS to that program for the remainder of their Ph.D. studies.

In the event students are unable to identify a suitable mentor and program by the end of their first year, one additional laboratory rotation approved by the steering committee is available during the summer quarter. Students who are unable to arrange for a laboratory after four rotations are recommended for release from their provisional graduate standing.

**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 year’s 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 the no degree objective (NDO) status. All admission to NDO status must be specially approved by the dean of the Graduate Division, as must any University financial assistance for students on 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 Concurrent and Articulated Degree Programs in the front of this catalog). 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 recommendation for student support for pursuit of a second doctoral degree. All degree requirements and University regulations apply just as they do for a first degree. Courses already applied to the earlier degree may not be applied to the second.

**Summer Sessions Courses**

Enrollment in Summer Sessions courses 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 courses to their subsequent graduate program should consult in advance with their departmental adviser. This is also true if they have been readmitted to graduate standing and wish to resume graduate study in Summer Sessions. Information and applications are available from Summer Sessions, 1147 Murphy Hall.

If students take Summer Sessions courses following the award of their bachelor’s degree, the grades do not appear on the undergraduate transcript (they are included on a separate transcript). After students are accepted by the Graduate Division, Summer Sessions 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 are returning after an absence (except a formal leave of absence) must file an Application for Graduate Admission.

See the Academic Policies section of this catalog for readmission procedures.

**Registration**

Enrollment and Degree Services
1113 Murphy Hall
(310) 825-1091
http://www.registrar.ucla.edu

Registration consists of paying fees and enrolling in classes.
1. Registration fees and other University charges are due the 20th of each month. BAR (Billing and Receivable) accounts can be viewed through URSA.

2. Enrollment in classes is completed via URSA at http://www.ursa.ucla.edu. Students must complete both processes by the established deadlines to be officially registered and enrolled 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 (see below). Failure to register or be on an official leave of absence for any term constitutes withdrawal from UCLA.

**Paying Fees**

Details on fee payment, enrollment procedures, and deadlines are in the *Schedule of Classes* at http://www.registrar.ucla.edu/schedule/.

**EBILL**

BAR accounts are administered electronically (eBill) through URSA. Monthly financial activity is displayed as well as past account activity for the last six months. URSA also provides a link to the Student Accounting website (http://www.studentaccounting.ucla.edu) where students can find important communications from the university regarding registration and university policies. Students can pay their BAR account electronically using Visa, MasterCard, or Discover Card. Students can also print out a remittance document from the eBill webpage and mail in payments with a check or money order.

**AUTOPAY**

Students can sign up for AutoPay and have their BAR account balances automatically paid by credit card. Credit cards are charged around the fifth of each month, and payments posted to BAR can be viewed through URSA on the eBill webpage.

**PAPER BAR**

Students may request to have a paper BAR statement sent. A paper BAR statement is generated each month if the unpaid balance due is $25 or more. To request a paper statement, students must go in person to the Student Accounting Office, located at B303 Murphy Hall. Paper statements are mailed after the first of each month and may be paid by check of money order or by Visa, MasterCard, or Discover Card.

**ANNUAL GRADUATE FEES**

Although the exact cost of attending UCLA varies, there are some fees that all UCLA students must pay. Each entering and readmitted student is required to submit a Statement of Legal Residence to Graduate Admissions with the Statement of Intent to Register.

Legal residents of California are not required to pay tuition. Students classified as nonresidents must pay annual tuition in addition to registration fees. For a definition of residence and nonresidence, see the Appendix.

**Annual Fees for 2003-04**

<table>
<thead>
<tr>
<th>Fee Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>University registration fee</td>
<td>$713.00</td>
</tr>
<tr>
<td>Educational fee</td>
<td>3,301.00</td>
</tr>
<tr>
<td>Ackerman Student Union fee</td>
<td>7.50</td>
</tr>
<tr>
<td>Graduate Students Association fee</td>
<td>33.00</td>
</tr>
<tr>
<td>Wooden Recreation Center fee</td>
<td>39.00</td>
</tr>
<tr>
<td>Seismic fee for Ackerman/Kerckhoff</td>
<td>113.00</td>
</tr>
<tr>
<td>Student Health Insurance Plan</td>
<td>852.00</td>
</tr>
<tr>
<td><strong>Total for California residents</strong></td>
<td>$5,058.50</td>
</tr>
<tr>
<td>Nonresident educational fee</td>
<td>3,491.00</td>
</tr>
<tr>
<td>Nonresident tuition</td>
<td>11,132.00</td>
</tr>
<tr>
<td><strong>Total for nonresidents</strong></td>
<td>$16,380.50</td>
</tr>
</tbody>
</table>

Fees are subject to change without notice by The Regents. See http://www.registrar.ucla.edu/fees/ for updates.

Students in the Schools of Dentistry, Law, Management M.B.A. program, Medicine, Nursing, and Theater, Film, and Television should refer to the online *Schedule of Classes* for explanation of additional fees.

**MISCELLANEOUS FEES**

Miscellaneous fees include charges for late registration fee payment. Late fees also apply if students file their Study List late or do not pay off BAR 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. A full list of miscellaneous fees is at http://www.registrar.ucla.edu/fees/miscfee.htm.

**STUDENT HEALTH INSURANCE PLAN**

All UCLA graduate students are automatically assessed for and enrolled in the Graduate Student Health Insurance Plan (GSHIP) as a condition of registration at UCLA. Continued enrollment in adequate medical/health insurance must be maintained during all registered terms.

The GSHIP fee is billed each term along with other UCLA fees. GSHIP fulfills all of the requirements mandated for adequate medical/health insurance as defined by the University. The Ashe Student Health and Wellness Center is the primary health care provider for GSHIP and is where all nonemergency
medical care must be initiated for GSHIP claim payment consideration. See http://www.studenthealth.ucla.edu.

**Waiving Out of GSHIP**

Students may waive out of GSHIP if they (1) maintain active enrollment in an adequate medical/health insurance plan that meets all established requirements, (2) apply for a GSHIP waiver within established deadlines, and (3) correctly complete the online GSHIP waiver form.

Students must apply for a GSHIP waiver online. See the Ashe Center website for details, including a definition of qualifying adequate private medical/health insurance. Follow the Online Services link from http://www.studenthealth.ucla.edu.

**Deadlines for Waiving Out of GSHIP**

Third party individuals may not waive out of GSHIP for another student. Waivers must be submitted by the stated deadlines whether or not fees have been paid. Deadlines are strictly enforced.

The schedule for waiving out of GSHIP is as follows:

- **Fall Quarter**: September 1-20
- **Winter Quarter**: December 1-20
- **Spring Quarter**: March 1-20
- **Fall Semester**: August 1-20
- **Spring Semester**: December 1-20

The above information serves as official notice of the UCLA mandatory medical/health insurance requirement. All students are responsible for providing complete and accurate information that must be submitted by the stated deadlines.

**FEE DEFERRALS**

Academic apprentice personnel are eligible to receive a fee deferral for part or all of the registration fees assessed during the term in which they serve as an academic apprentice. Students are responsible for paying fees by the deferred payment deadline, which is generally 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 in the *Schedule of Classes*. Fees not paid by the deadline are subject to the late fee charge.

**REDUCED NONRESIDENT TUITION**

The annual nonresident tuition fee for graduate doctoral students who have advanced to candidacy is reduced by 75 percent, effective the term after the student is advanced. Doctoral students may receive this reduced nonresident tuition 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 registration fee) in lieu of full registration fees for the term in which they expect to complete final degree requirements and receive their degree. Doctoral students are not eligible to pay the filing fee unless registered the immediately preceding term.

Students who pay the filing fee are not eligible for University services beyond a maximum of 12 hours of faculty and staff time required to complete degree requirements and are not considered in the same status as registered students.

**ANNUAL BUDGET ESTIMATES**

The table below provides an estimate of a total budget students might expect based on the regular session terms of the academic year, not including Summer Sessions.

Students admitted to the D.D.S., J.D., M.B.A., M.S.N., M.F.A. in Theater, M.F.A. in Film and

<table>
<thead>
<tr>
<th>Item</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>University fees</td>
<td>$4,206.50</td>
<td>$4,396.50</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>852.00</td>
<td>852.00</td>
</tr>
<tr>
<td>Nonresident tuition</td>
<td>11,132.00</td>
<td>14,958.00</td>
</tr>
<tr>
<td>Books and supplies</td>
<td>1,470.00</td>
<td>1,470.00</td>
</tr>
<tr>
<td>Living expenses</td>
<td>14,958.00</td>
<td>14,958.00</td>
</tr>
<tr>
<td><strong>Total Budget Estimate</strong></td>
<td>$21,486.50</td>
<td>$32,808.50</td>
</tr>
</tbody>
</table>
Television, and M.D. degree programs must add a professional school fee, which varies by school.

Budgets for the Schools of Medicine, Dentistry, and Nursing are higher due to specialized supplies; figures are available from the health professions counselor. Budgets are designed to serve as a guide and are subject to change without notice.

Nonresident tuition and certain University fees were under review at the time of publication. All fees are subject to change without notice by The Regents. See the Schedule of Classes Fee Charts for updates at http://www.registrar.ucla.edu/fees/.

**ENROLLING IN CLASSES**

The online Schedule of Classes contains listings of class times, meeting rooms, instructors, and all information necessary for enrolling in classes. Use the Schedule and academic counseling to assemble a program of courses.

**URSA ENROLLMENT**

Students enroll in classes through University Records System Access (URSA), which is accessed online at http://www.ursa.ucla.edu. For most students, URSA OnLine is the easiest way to enroll in classes. The site walks students through the enrollment procedure.

Students are assigned specific times—called appointments—when they are allowed to enroll. Use URSA to determine enrollment appointments.

Also use URSA for other enrollment-related tasks, such as adding, dropping, or exchanging classes, signing onto the wait list for a class and checking waitlist status, or changing the grading basis for a class. For more information, see the URSA and Enrollment sections of the online Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

**IN-PERSON ENROLLMENT**

For classes that require written approval or specialized processing, students may enroll in person at 1113 Murphy Hall Monday through Friday, 9 a.m. to 5 p.m.

**STUDY LIST**

A Study List is the record of courses a student is enrolled in 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 URSA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on URSA 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 via URSA. Some changes require an Enrollment Petition—along with approval signatures—which is available for purchase in the UCLA Store.

See Enrollment in the online Schedule of Classes for deadlines and complete instructions.

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

**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 the University’s official enrollment records. Therefore, students are directed by their departments to enroll full time whenever possible.

Throughout their appointments, teaching assistants (TAs) are required to be registered and enrolled in at least 8 quarter units and graduate student researchers in at least 12 quarter units. TAs or researchers terminate their appointments if they take a leave of absence or withdraw. Course 375 for TAs and independent studies at the 500 level for graduate student researchers may be counted toward the 8- or 12-unit load.

Graduate students holding fellowships must be enrolled in at least 8 units, both before and after advancement to candidacy. The 8-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 stated by the major department. Information on Department of Veterans Affairs regulations is available from the Veterans Affairs 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 their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee (see above). Failure to register or be on an
official leave of absence for any term (Fall, Winter, Spring) constitutes withdrawal from UCLA.

REGISTRATION IN THE FINAL TERM
If students are completing courses, using faculty time, library facilities, laboratories, or other University resources, or receiving University 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 adviser or department chair elaborating the exceptional circumstances.

Students who were registered for the preceding term and who completed all requirements for a degree in the interval between terms (before the first day of instruction) are not required to register to receive a degree at the end of the following term.

HEALTH ASSESSMENT AND EVALUATION
New students enrolling in the School of Dentistry, School of Social Welfare, Medicine, or Nursing must complete and return to the Ashe Student Health and Wellness Center the Health Evaluation forms provided by their departments. For clearance information, call (310) 825-4073.

FINANCIAL SUPPORT

Graduate Student Support  Graduate Outreach, Diversity, and Fellowships
1228 Murphy Hall  1252 Murphy Hall
(310) 825-1025  (310) 825-3521
http://www.gdnet.ucla.edu

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 students is included in the Application for Graduate Admission. Readmitted students should also request the Application for Graduate Admission, and continuing graduate students should complete the Fellowship and Assistantship Application for Continuing Students. Completed fellowship applications must be returned by the published deadlines. Some departments have earlier deadlines; consult the application brochure for details.

Financial Support for Entering Students and Graduate Student Support for Continuing Students describe the full range of financial assistance available. They are revised annually and made available at the Graduate Division’s website. Students should contact their department for more detailed information.

FELLOWSHIPS
The University 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 the University 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 provide stipends in varying amounts for qualified students. Nonresident tuition fellowships cover the tuition, 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 provide experience in teaching undergraduates, with faculty supervision. (Teaching assistants, associates, and fellows are eligible to receive partial payment at the beginning of the term in the form of an interest-free advance loan check. Interested students should apply to their departments.) Graduate student researcher appointments give students experience working on faculty-supervised research projects.

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 file the Free Application for Federal Student Aid (FAFSA). The priority filing deadline is March 2.

Students who need financial aid for Summer Sessions must submit a Summer Aid Application in addition to FAFSA. Summer applications are available at http://www.fao.ucla.edu beginning April 1 and should be filed by May 1 for on-time consideration.

Financial aid awards include work-study and low-interest loans. Students are usually awarded a financial aid package which is a combination of these forms of assistance. Further information is available from the Financial Aid Office, A129J Murphy Hall or at http://www.fao.ucla.edu.
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 in Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu. At the same website, Standards and Procedures for Graduate Study at UCLA provides detailed information and sets forth 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. General regulations concerning graduate courses, standards of scholarship, disqualification, appeal, leave of absence, normal progress toward degree, withdrawal, and a number of other matters also are included.

MASTER’S AND DOCTORAL STUDY

Graduate students earn a master's or doctoral degree by distinguished achievement in advanced study and research. In addition to coursework, there are various means of evaluating achievement in study, including qualifying and comprehensive examinations and various kinds of laboratory and fieldwork. Achievement in research is primarily assessed through evaluation of the master's thesis or doctoral dissertation. Professional master's and doctoral degree programs require professional training. Demonstration of achievement in these fields may take various forms, including fieldwork, completion of projects, and training that involves professional licensure.

UNIVERSITY MINIMUM STANDARDS

The requirements described here for master's and doctoral 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 degree. Each department also sets additional requirements for doctoral degrees according to the demands of the field of study. See Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu and the departmental graduate adviser for details. Policies and regulations are outlined in Standards and Procedures for Graduate Study, which is available from Graduate Admissions/Student and Academic Affairs, 1255 Murphy Hall or at http://www.gdnet.ucla.edu.

ACADEMIC RESIDENCE

For the master's degree, the minimum residence requirement consists of three academic terms in graduate standing at the University of California, including at least two terms at UCLA.

For the doctoral degree, the minimum residence requirement is two years (six terms) 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 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 residency 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: (1) enroll in two six-week Summer Sessions taking at least 2 units of upper division and/or graduate work in each session OR (2) enroll in one eight-week session for at least 4 units of credit. Residence earned through Summer Sessions enrollment is limited to one third of the degree requirements.

To maintain satisfactory progress toward the degree, UCLA requires at least a B average in all courses taken in graduate standing at the University and in all courses applied toward a graduate degree, including those taken at another UC campus.

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 further details on foreign language requirements, consult the departmental graduate adviser.

**Changing Majors**

Continuing graduate students may petition for a change of major after discussing plans with the new department. Forms are available from the departments and should be filed with Graduate Admissions/Student and Academic Affairs, 1255 Murphy Hall. Deadlines are generally the same as those for the graduate admissions procedure.

**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 (20 units) of the nine must be graduate-level courses.

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

**Plan I: Master’s Thesis**

After advancement to candidacy, students under Plan I must submit a thesis reporting on results of their original investigation of a problem. While the problem may be one of only limited scope, the thesis must show a significant style, organization, and depth of understanding of the subject.

A thesis committee, consisting of at least three faculty members who hold regular professorial appointments at the University, is nominated by the department and appointed by the dean of the Graduate Division for each student (consult the Graduate Division for more details on committee members' eligibility requirements). The thesis committee, which must be appointed before students may be advanced to candidacy, approves the subject and plan of the thesis, provides the guidance necessary to complete it, then reads and approves the completed manuscript. Approval must be unanimous among committee members.

Once the thesis committee and other concerned faculty members have approved the subject for the thesis, work may begin. Students are responsible for preparing the thesis in the proper form and for observing filing deadlines.

**Plan II: Master’s Comprehensive Examination**

Following advancement to candidacy, students under Plan II must pass a comprehensive examination administered by a committee consisting of at least three faculty members appointed by the department. In some departments the comprehensive examination may serve as a screening examination for admission to doctoral programs. Information concerning this examination and its format is available in the departments.

**Doctoral Degree**

Doctoral programs are individualized and permit a high degree of specialization. The University 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 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 group. They are supervised during this period by a departmental 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. All students are required to successfully complete a written qualifying examination and the University Oral Qualifying Examination before advancement to doctoral candidacy. Once all departmental and foreign language requirements are met, the department chair consults with the student and then nominates a doctoral committee.

**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 the Graduate Division 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.
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 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 University 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 class levels are determined by the number of units completed as follows:

- Freshman (UFR) 0-44.9 units
- Sophomore (USO) 45-89.9 units
- Junior (UJR) 90-134.9 units
- Senior (USR) 135 or more units

Graduate class levels are based on the degree objective and whether or not students are advanced to candidacy for a doctorate.

**REPETITION OF COURSES**

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

1. To improve the grade-point average, students may repeat only those courses in which they receive a grade of C– or lower; NP or U grades may be repeated to gain unit credit. Courses in which a letter grade is received may not be repeated on a P/NP or S/U basis. Courses originally taken on a P/NP or S/U basis may be repeated on the same basis or for a letter grade.
2. Repetition of a course more than once requires the approval of the College 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. For undergraduates who repeat a total of 16 units or less, only the most recently earned letter grades and grade points are computed in the GPA. After repeating 16 units, however, the GPA is based on all letter grades assigned and total units attempted.
5. For graduate students, all courses in which a letter grade is given, including repeated courses, are used in computing the GPA.

**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 regular courses, 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 doctoral degrees.

Students need approval from the instructor, the department, and the College or school or the 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 terms of 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, but a D grade must be offset by higher grades in the same term for students to remain in good academic standing. An F grade 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, but a C grade must be offset by higher grades in the same term for students to remain in good academic standing. Courses in which a C grade is received, however, may be applied toward graduate degrees unless otherwise prohibited by the program requirements.

The Schools of Dentistry, Medicine, and Law use their own grading codes. Students who are interested in programs in any of these schools should consult the appropriate school announcement.

**GRADE POINTS**

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

<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>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A−</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B−</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C−</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D−</td>
<td>0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NP</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DR</td>
<td></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 P or S grade 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 an I grade 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 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.

<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></td>
<td>12</td>
<td>34.8</td>
</tr>
</tbody>
</table>

For satisfactory standing, undergraduate students must maintain a C average (2.0 GPA) and graduate students a B average (3.0 GPA) in all courses taken at any campus of the University (except UCLA Extension).

Only grades earned in regular session or Summer Sessions at any UC campus and grades earned by
Arts and Architecture and Letters and Science 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 the University when evaluating records for admission to graduate and professional school programs. Students should contact them about their policies in this regard.

**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 an NP grade.

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). They may not elect the P/NP option for Summer Sessions courses without an approved petition. 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; consult the College or school for details.

Students may make program changes to or from P/NP grading through the sixth week of instruction via URSA.

Courses that are offered only on a P/NP basis are designated PN in the *Schedule of Classes*.

**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 U grade. They may not elect the S/U option for Summer Sessions 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 residency requirements if so approved. Interdepartmental majors may not apply S/U courses to degree requirements, except for 500-series courses. Program changes to or from S/U grading may be made through the tenth week of instruction via URSA.

Courses that are offered only on a S/U basis are designated SU in the *Schedule of Classes*.

**INCOMPLETE GRADES**

Once an Incomplete (I) grade is assigned, it remains on the transcript along with the passing grade students may later receive for the course. The instructor may assign the I grade 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 I grade as opposed to a nonpassing grade.

If an I grade is assigned, students may receive unit credit and grade points by satisfactorily completing the coursework as specified by the instructor. Students should not reenroll 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 grade lapses to an F, NP, or U as appropriate. The College or school may extend the deadline in unusual cases (not applicable to graduate students).

**IN PROGRESS GRADES**

For certain courses extending over more than one term (identified by T1, T2, T3, or T4 in the *Schedule of Classes*), 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 school or College faculty or the Graduate Division determines credit if they do not complete the full sequence and petition for partial credit.

**DEFERRED REPORT GRADES**

Students may receive a Deferred Report (DR) grade 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 DR grade, 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 grade 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 reexamination or, with the exception of the I and IP grades, by completing additional work. Students who are dissatisfied with a grade should review their work with the instructor and receive an explanation of the grade assigned. All grade changes are recorded on the transcript. See the Appendix for further details and procedures for appealing grades.

**ABSENCE AND READMISSION**

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

**CANCELLATION**

Before the first day of classes, students may cancel registration by (1) mailing a written notice to Enrollment and Degree Services, Attn: Cancellation Clerk, 1113 Murphy Hall, UCLA, Box 951429, Los Angeles, CA 90095-1429 or (2) faxing a written notice to (310) 206-4520. Refund is as follows: fees paid by new undergraduate students are refunded except for the nonrefundable acceptance of admission fee and service fee; fees paid by new M.B.A. and Dentistry students are refunded except for their respective nonrefundable acceptance of admission fee; for new graduate, continuing, and reentering 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 compete for readmission to return to the University.

**WITHDRAWAL**

Withdrawing from the University means discontinuing attendance in all courses in which students are enrolled. Students who withdraw during a term need to file a Notice of Withdrawal, available from their academic dean’s office (undergraduates) or departmental office (graduate students).

When students officially withdraw, a percentage of the registration fee may be refunded depending on the date the withdrawal form is filed.

Claims for refund must be presented within the academic (fiscal) year to which the claim is applicable. Consult the *Schedule of Classes* for policy details and specific refund dates.

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 faculty, departmental, or College 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 the University.

Students who register and subsequently discontinue coursework or stop payment on registration checks without an approved petition for withdrawal, leave of absence, or cancellation receive F, NP, or U grades, as appropriate, for all courses in which they are enrolled for that term. A fine is assessed if any check for registration fee 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.

**UNDERGRADUATE READMISSION**

Students who complete a term (Fall, Winter, Spring), 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.

**ONE-TERM ABSENCE**

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, they must have an official transcript mailed from the institution directly to UCLA Undergraduate Admissions and Relations with Schools (UARS). Once students request a transcript, they must complete a Transfer Credit Evaluation Request form at UARS, 1147 Murphy Hall, to have coursework evaluated.

**REENTERING STUDENTS**

To return to the University after an absence of more than one term, 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 re-
admission 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 grade-point average) when they left the University, 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.☎ 310-825-1091

**GRADUATE READMISSION**

For details on the policies below, consult *Standards and Procedures for Graduate Study at UCLA* at http://www.gdnet.ucla.edu/publications.html.

**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 or be on an official leave of absence for any term (Fall, Winter, Spring) 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 the approval of the Graduate Division, be eligible for leaves of absence. Graduate students are allowed a maximum of six quarters of official leave of absence.

Students on approved leave of absence are not permitted to use faculty time or make use of University 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 information when their leave is due to expire.

Obtain a Request for Leave of Absence form at Graduate Admissions/Student and Academic Affairs, 1255 Murphy Hall. See the Schedule of Classes calendar for the filing deadline.

**APPLICATION FOR 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 their leaves. 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 compete for readmission with new applicants.

Students who have registered at any time as a graduate student at UCLA and are returning after an absence (except a formal leave of absence) must file an Application for Graduate Admission which is available online at http://www.gdnet.ucla.edu. Payment of the nonrefundable application fee may be paid by credit card or by check or money order. The following materials must also be submitted:

1. The Graduate Petition for Change of Major, if appropriate (students who are reaplying in a new major), along with the UCLA graduate transcript
2. Transcripts of all academic work completed since registration at UCLA as a graduate student

**TRANSCRIPTS AND RECORDS**

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

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

**CLOSURE OF STUDENT RECORD**

Student records are closed to revisions in enrollment, grading, and academic actions upon 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, which may be found at http://www.adminvc.ucla.edu/appm/public/app_0220_1.html.

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. Upon 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.

Two versions of official UCLA student records are available from Academic Record Services, 1134 Murphy Hall. These are the academic transcript and the verification transcript. Each is designed to meet specific needs.

**ACADEMIC TRANSCRIPT**

The academic transcript is a student’s complete academic record, including a listing 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 the courses that a student enrolled in during the term the document was requested and other in-progress information such as a change in major or the removal of an I grade.

Grades for completed terms are processed immediately following the conclusion of final examinations. Complete academic transcripts are available approximately 30 working days after the last day of the term. For graduating students, academic transcripts with the graduation date included are available approximately seven weeks after the term ends. Students who require earlier proof of graduation should contact a degree auditor in 1113 Murphy Hall. A fee may be charged for this service.

The minimum period required for processing and issuing academic transcripts for both registered and former students is three working days.

**VERIFICATION TRANSCRIPT**

The verification transcript certifies registration (fee payment), enrollment status, degrees, and “good student” standing for auto insurance. Verification transcripts confirm 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-listed units or list courses for a term.

Verification of degree can be issued after students’ degrees have been posted to their student record approximately seven weeks after the term ends. Students who require verification before their degree is posted should contact their degree auditor in 1113 Murphy Hall.

The fee for a verification transcript is waived if requested for loan or student aid verifications (proof of request required). Most enrollment verifications for loans and creditors, however, are processed for the University by the National Student Clearinghouse. 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).

**ORDERING TRANSCRIPTS**

Academic and verification transcripts can be ordered by sending a request to UCLA Registrar’s Office, Attn: [Academic or Verification] Transcripts, 1105 Murphy Hall, Box 951429, Los Angeles, CA 90095-1429.

Requests should include the student’s
1. Name under which they were registered at UCLA
2. Dates of attendance at UCLA
3. Date of birth
4. Social security number and/or student I.D.
5. Complete address and telephone number
6. Number of copies requested
7. Mailing instructions including all details and any special handling
8. Full signature

Transcript request forms containing this information are available in the Murphy Hall North Lobby or at http://www.registrar.ucla.edu/forms/. Transcripts can also be ordered by faxing a request to (310) 825-6235.

For UCLA Extension courses, order transcripts from UCLA Extension, P.O. Box 24901, Los Angeles, CA 90024.

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

More information on ordering transcripts is available by calling (310) 825-3801 or by contacting transcripts@registrar.ucla.edu.
FEES AND PAYMENT

Current students' transcript fees are billed to their BAR account. Former students may be billed or may submit a check or money order payable to Regents-UC.

In some cases, special fees may apply. Forms that must be completed by the Registrar's Office or that require official signatures are charged a special handling fee. Expedited service—processing within 24 hours—is available for an additional fee, or transcripts can be faxed with payment of an additional fee. Transcripts that are faxed are generally not considered official and confidentiality cannot be guaranteed.

Transcript requests are not processed for anyone with outstanding obligations to the University. For exact fees, see http://www.registrar.ucla.edu/fees/.

CERTIFICATE OF RESIDENT STUDY

International students who must leave the University and the country 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 the 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 months or more.

STUDENT RECORDS

The Registrar prepares, maintains, and permanently retains a record of each student's academic work. Student files of pertinent documents are maintained up to five years following the last date of attendance. Students may view their documents in Academic Record Services, 1134 Murphy Hall. Advance notice of 24 hours is required for viewing. ☎ 310-825-3801

UNIVERSITY RECORDS SYSTEM ACCESS

Through University Records System Access (URSA), UCLA students acquire academic, financial, and personal information from their University academic records. Students may access the system for up to 10 years after their graduation or last term of attendance. See http://www.ursa.ucla.edu.

As needed, students may obtain a free printout of their grades for the most recent graded term from the Registrar's Office, 1113 or 1134 Murphy Hall, by presenting their valid current-term BruinCard.

CHANGE OF NAME OR ADDRESS

Students who wish to change their name on official University records should fill out a UCLA Correction or Change of Name form (available in the Murphy Hall North Lobby) and submit it to Enrollment and Degree Services, 1113 Murphy Hall. All name changes are recorded on the transcript. If students change their address, they should update their address through URSA or at Enrollment and Degree Services.

DEGREES

Students must satisfy (1) University requirements, (2) College or school requirements, and (3) department requirements as described in this catalog.

UNDERGRADUATE DEGREES

Undergraduate degree requirements are subject to the following degree policies.

STUDENT RESPONSIBILITY

It is the responsibility of students to keep informed of and to comply with the rules, regulations, and policies affecting their academic standing. Meeting academic deadlines, monitoring the Study List for accuracy, completing requisites, and fulfilling degree requirements are all part of their academic duties as students.

MINIMUM SCHOLARSHIP

The grades A through C and Passed 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 C (2.0) average in all courses taken at any University of California 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 grade-point average falls between 1.5 and 1.99. While they are on probation, they may not take any course on a Passed/Not Passed basis. Probation ends at the close of a regular term if students have attained a C (2.0) average for the term and a cumulative C average in all University work. Students who do not end probation within two terms are subject to dismissal.

Academic Dismissal

Students are subject to dismissal from the University under any of the following conditions:

1. If their grade-point average in any one term is less than 1.5 or
2. If they do not earn at least a C (2.0) average in any term when they are on probation or
3. If they do not end probation within two terms

If students are subject to dismissal, their transcripts carry that notation. They should make an appointment with their College or school counselor.
Depending on the situation, they are given conditions for continuation or are dismissed from the University.

**PROGRESS TOWARD THE DEGREE**

UCLA is a full-time institution, and it is expected that students complete their undergraduate degree requirements promptly. Normal progress toward graduation in four years is defined as the completion of 45 units per year, or 15 units per term.

**MINIMUM PROGRESS**

The College and each school enforces minimum progress regulations. Students may be subject to disqualification for failing to meet minimum progress requirements. See the College and School section for specific minimum progress and Study List regulations.

**PETITIONS**

A petition is a form submitted to explain an exception from any standard rule or regulation of the University. It is the only way to obtain formal approval from the department, the College or school, the Registrar, or office with authority over the particular request. Some petitions carry a fee.

Some of the 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 URSA processing ends; or obtain credit by examination. In addition, 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 in ASSIST (http://www.assist.org), the statewide transfer information site. Students can get some knowledge of transfer credit from institutions other than the University of California or California community college by comparing the descriptions of courses taken with those in the UCLA General Catalog.

Once students complete the courses, they must have the other institution send transcripts to Undergraduate Admissions and Relations with Schools (UARS), 1147 Murphy Hall, Box 951436, Los Angeles, CA 90095-1436. Transfer students should discuss transfer credit with their College or school counselor and/or departmental adviser.

**Community College**

The maximum number of community college units allowed toward the bachelor’s degree is 105 quarter units (70 semester units). The UCLA UARS does not grant transfer credit for community college courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower division requirements. Consult the College or school counselors for possible further limitations. To convert semester units into quarter units, multiply the semester units by 1.5—for example, 12 semester units × 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666—for example, 12 quarter units × .666 = 7.99 or 8 semester units.

**Summer Sessions**

Summer Sessions grades at any UC campus other than UC Santa Cruz (unless the letter-grade option is elected at UCSC) 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 Arts and Architecture, and the School of Engineering and Applied Science in courses prefixed by XLC are computed in the UCLA grade-point average. No degree credit is given for courses numbered X300 through X499. Remember that 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 is different for the College and each school.

**College of Letters and Science**

The Degree Progress Report (DPR) serves as the degree check. The DPR is an assessment of all degree requirements and the courses taken to fulfill them. View and print DPRs through URSA or order one at a College counseling office (Academic Advancement Program, 1209 Campbell Hall; Honors Programs, A311 Murphy Hall; Letters and Science Counseling Services, A316 Murphy Hall). Students should review questions about their DPR with departmental undergraduate advisers or College counselors, as appropriate.

**School of the Arts and Architecture**

Degree Progress Reports are available via URSA as well as on request from the Office of Student Services, 194 Kinross South. Students should consult an adviser in the Office of Student Services when they have questions about degree requirements. Questions regarding major requirements should be referred to the departmental counselor.
ACADEMIC POLICIES

Henry Samueli School of Engineering and Applied Science
Students starting their upper division major field coursework must submit a “satisfied” Academic Program Proposal to the Office of Academic and Student Affairs, 6426 Boelter Hall. All engineering students may pick up a Graduation Evaluation Report at 6426 Boelter Hall. The report outlines each category requirement for an engineering degree and the courses completed for each category. Students should obtain an official degree check at least one term prior to their graduation term. For details, see http://www.seasoasa.ucla.edu/degree_check.html.

School of Nursing
Students may initiate a request for an updated degree check by contacting the student services coordinator in the Student Affairs Office, 2-200 Factor Building.

School of Theater, Film, and Television
Students entering as freshmen receive a written degree check on achieving junior standing. Students entering as juniors receive a degree check on entry. Students may initiate or request an updated degree check by making an appointment with their departmental counselor in the Student Services Office, 103 East Melnitz Building.

GRADUATE DEGREES
For graduate degree requirements and procedures, see Program Requirements for UCLA Graduate Degrees and Standards and Procedures for Graduate Study at UCLA at http://www.gdnet.ucla.edu.

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

UNDERGRADUATE STUDENTS
Approximately eight out of every 10 UCLA freshmen eventually receive a baccalaureate degree, either from UCLA or from another campus or institution. One third of all UCLA baccalaureate 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 they expect to complete degree requirements through URSA by the time they complete 160 units (172 units for engineering students) to avoid a late candidacy fee. The identified term must fall within the academic year (four quarters) subsequent to the term in which students reach or expect to reach the 160- or 172-unit mark. Once they complete 160/172 or more units, a fee is assessed each time students change the degree expected term.

Current-term or past-term candidates over the unit limit must purchase the UCLA Declaration of Candidacy form at any UCLA Store and file it at 1113 Murphy Hall. The form is also available online at http://www.registrar.ucla.edu/forms/.

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

Verify the degree expected term through URSA. For questions about degree candidacy status, Letters and Science students may inquire at 1113 Murphy Hall. Arts and Architecture, Theater, Film, and Television, Engineering, and Nursing students should see their school office. A photo I.D. 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 second-week candidacy deadline. Students graduating in absentia are assessed the undergraduate in absentia degree service fee in addition to the declaration of candidacy fee if they were also not registered in the term immediately prior to their degree expected term.

FINAL DEGREE AUDITS AND GRADUATION
Degree auditors in the Registrar’s Office for Letters and Science students (194 Kinross South for Arts and Architecture students, 6426 Boelter Hall for Engineering students, 2-200 Factor Building for Nursing students, and 103 East Melnitz Building
for Theater, Film, and Television students) 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).

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. Degree auditors notify students whose graduation eligibility cannot be verified of any requirements still outstanding and other problems in completing the degree.

Student records are closed to revisions in enrollment, grading, and academic actions upon 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 mailed 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 URSA or at 1113 Murphy Hall. They may be assessed applicable fees.

Contact degree auditors only for questions about degree audits. Phone numbers are in the Registrar’s Services Guide in the Student Services section of the Schedule of Classes. For graduation ceremony procedures, contact the College or school.

**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 awarded at the end of Fall and Spring semesters. Consult the UCLA quarter, summer sessions, and semester calendars for the degree award date, which is the final day of the term. See http://www.registrar.ucla.edu/calendar/.

**COMMENCEMENT**

The College and each school conduct ceremonies for their graduates. Ceremonies feature addresses and recognize candidates who have achieved high academic distinction and honors. 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 URSA.

Check with the College or school for eligibility requirements, programs, and time schedules. Further information, including the schedule of ceremonies, maps and parking, and updates is at http://www.commencement.ucla.edu.

**DIPLOMAS**

Diplomas for both undergraduate and graduate students are available approximately three to four months after the degree award date. Information about obtaining the diploma in person (no fee) or by mail (with fee) is sent to students approximately seven weeks after the end of their final term. To expedite receipt of the diploma, students should return the diploma mailer form and remit the mailing fee. Obtain recorded diploma availability information at (310) 825-8883. The Registrar’s Office retains diplomas for five years from graduation date.

**Change of Name**

To be reflected on the diploma, name changes must be submitted to Academic Record Services, 1134 Murphy Hall, by the last day of the degree expected term. Students submitting name changes after that date must request a replacement diploma at 1113 Murphy Hall and pay an additional fee.

**Duplicate Diplomas**

If the original diploma is destroyed, a duplicate may be ordered by contacting the Registrar’s Office, Diploma Reorder, 1113 Murphy Hall. There is a fee for the replacement diploma, and it bears a reissue date and the signatures of the current officials of the state and University.

**GRADUATE STUDENTS**

Candidates for both master’s and doctoral degrees must be advanced to candidacy and complete all degree requirements, including the master’s thesis or comprehensive examination, or doctoral dissertation, before the degree is conferred (see the Schedule of Classes calendar for filing deadlines). For graduate degree requirements and procedures, see Program Requirements for UCLA Graduate Degrees and Standards and Procedures for Graduate Study at UCLA at http://www.gdnet.ucla.edu.
The UCLA campus has one College and 11 professional schools. Each has its own degree requirements and is headed by a dean who has final academic authority. UCLA students enroll in the University and in the College or one of the schools described in this section.

**College of Letters and Science**

Judith L. Smith, Interim Executive Dean

UCLA
A316 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430
(310) 825-1965 (Letters and Science Counseling)
http://www.college.ucla.edu

“The Idea of a Multiversity‘ is a city of infinite variety. Some get lost in the city; some rise to the top within it; most fashion their lives within one of its subcultures. . . . It offers . . . a vast range of choices, enough literally to stagger the mind. In this range of choices . . . (one) encounters the opportunities and the dilemma of freedom.”

Clark Kerr, *The Uses of the University*

With over 23,000 students and more than 800 faculty, UCLA’s College of Letters and Science is the largest academic unit in the UC system. The four academic divisions of humanities, physical sciences, social sciences, and life sciences provide the framework for more than 125 majors leading to the Bachelor of Arts or Bachelor of Science as well as to master’s and doctoral degrees.

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 posed, and knowledge 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.

For a complete list of Letters and Science degrees, see the table in the front of this catalog.
create a gateway to civilizations that span the globe and five millennia of human history. Philosophers provide training in the fundamental principles of logic and moral reasoning, and linguists—both theoretical and applied—illuminate the ways we communicate. Historians of religion, music, and art 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

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 and cell signaling. 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

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. 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

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 behavior 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.

HONORS AND UNDERGRADUATE PROGRAMS

The Honors and Undergraduate Programs Division provides academic programs, services, and scholarships through a number of units.

Academic Advancement Program. The Academic Advancement Program (AAP) is the nation’s largest undergraduate retention program, a multiracial, multiethnic, and multicultural program, promoting academic excellence among the 5,500 UCLA students that AAP serves. See http://www.college.ucla.edu/up/aap/.

Academics in the Commons. The Academics in the Commons (AITC) program provides students, through workshops and tutorials, with an understanding of skills and techniques, an awareness of campus resources, and knowledge of self, so that
personal and academic success at UCLA can be achieved. See http://www.college.ucla.edu/up/aitc/.

Center for Community College Partnerships. The Center for Community College Partnerships (CCCP) develops academic partnerships between California community colleges and the University to strengthen and diversify curriculum, create strong academic support programs, improve students' competitiveness for UC admissions, and increase the diversity of the UCLA transfer admit pool. See http://www.college.ucla.edu/up/aap/newsletter/ccccp_smith.html.

Honors Programs. The Honors Programs Office offers academic programs and services designed to promote an outstanding honors education, including Honors Collegium, Departmental Scholars, Individual Majors Program, Phi Beta Kappa, Honors Scholarships, and specialized counseling and support services for UCLA honors students. See http://www.college.ucla.edu/up/honors/.

Letters and Science Counseling Office. The Letters and Science Counseling Office provides UCLA undergraduates with counseling 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. See http://www.college.ucla.edu/up/counseling/.

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. See http://www.oid.ucla.edu.

Orientation Program. The Orientation Program is the first introduction to UCLA for new students. During the three-day first-year student sessions and the one-day transfer student sessions, a unique set of comprehensive and engaging programs is offered to make the transition to UCLA a great one. See http://www.orientation.ucla.edu.

Scholarship Resource Center. The Scholarship Resource Center (SRC) is designed to help students in the search for private scholarships, regardless of financial aid eligibility. See http://www.college.ucla.edu/up/src/.

Transfer Alliance Program. The Transfer Alliance Program (TAP) strengthens academic ties between UCLA and honors programs in 38 community colleges to provide specialized transfer programs for participating students. See http://www.admissions.ucla.edu/Prospect/Adm_tr/ADM_CCO/tap.htm.

Undergraduate Academic Initiatives. Undergraduate Academic Initiatives are innovative programs designed for lower division students that feature best practices in undergraduate education and attract UCLA's most distinguished faculty members from all campus areas. Programs include College General Education, Fiat Lux Seminars, Freshman Cluster Program, Professional Schools Seminar Program, and Writing II Program.

Undergraduate Evaluation and Research Office. The Undergraduate Evaluation and Research Office provides information and analysis to support planning, program and policy development, and other decision making about undergraduate education at UCLA. See http://www.college.ucla.edu/up/eval/.

Undergraduate Research Centers. Undergraduate Research Centers (URC)—one for students in the humanities and social sciences and one for students in the life sciences and physical sciences—exist as part of a continuing effort by the College to engage undergraduate students in research and creative activities at all levels. See http://www.college.ucla.edu/ugresearch/index.html.

UNDERGRADUATE DEGREE REQUIREMENTS

For a complete list of Letters and Science degrees, see the table in the front of this catalog.

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 provide general foundations of human knowledge. In upper division courses, they concentrate on one major field of interest.

As described below, College of Letters and Science students must meet three types of requirements for the Bachelor of Arts or Bachelor of Science degree:

1. University requirements
2. College requirements
3. Department requirements

UNIVERSITY REQUIREMENTS

The University of California has two requirements that undergraduates must satisfy in order to graduate: (1) Subject A or English as a Second Language and (2) American History and Institutions. Students
who do not satisfy the Subject A requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Subject A requirement can they take for transfer credit an English composition course after enrolling at UCLA. See Degree Requirements in the Undergraduate Study section for details.

**COLLEGE REQUIREMENTS**

The College of Letters and Science has seven requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, English composition, quantitative reasoning, foreign language, and general education.

**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 (transfer) credit may exceed the unit maximum by the amount of that credit.

**SCHOLARSHIP REQUIREMENT**

Students must earn at least a C (2.0) grade-point average in all courses undertaken at UCLA for receipt of the bachelor's degree. They must also attain a 2.0 GPA in a major and satisfy both the course and scholarship requirements for that major, including preparation for the major.

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**Structure of a Degree**

**University Requirements**
1. Subject A or English as a Second Language
2. American History and Institutions

**College Requirements**
1. Unit
2. Scholarship
3. Academic Residence
4. College Writing
   - Writing I Requirement
   - Writing II Requirement
5. Quantitative Reasoning
6. Foreign Language
7. General Education

**Department Requirements**
1. Preparation for the Major
2. The Major

Courses that do not satisfy the University, College, or department requirements are referred to as electives and are used to meet the minimum unit requirement for graduation.

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**ACADEMIC RESIDENCE REQUIREMENT**

Sixty-eight of the final 80 units completed for the bachelor's degree must be earned in residence in the College. No more than 16 of the 68 units may be completed in UCLA Summer Sessions. While enrolled in the College, students must complete at least 40 upper division units, including 24 upper division units in the major. The academic residence requirements apply to all students, both continuing and transfer.

**COLLEGE WRITING REQUIREMENT**

Students must complete the University's Subject A 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-quarter College writing requirement—Writing I and Writing II. Continuing and returning students fulfill the requirements in effect prior to Fall Quarter 1999. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, and students must receive grades of C or better (C– grades are not acceptable).

**Writing I.** The Writing I requirement must be satisfied by completing English Composition 3 or 3H, or an equivalent course approved by the College Faculty Executive Committee, within the first three quarters of enrollment.

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or better on the SAT II Subject Test in Writing and superior performance on the English Composition 3 Proficiency Examination.

Students whose native language is not English may satisfy the Writing I requirement by completing English as a Second Language 36 with a grade of C or better (C– or a Passed grade is not acceptable). Admission into the course is determined by completion of English as a Second Language 35 with a passing grade or proficiency demonstrated on the English as a Second Language Placement Examination (ESLPE).

**Writing II.** The Writing II requirement is satisfied by selecting a course from a list of courses approved by the College Faculty Executive Committee. Writing II courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and are available in Letters and Science Counseling Offices. Most Writing II courses may also be applied toward general education (GE) requirements or toward some preparation for the major requirements. It is strongly recommended that the requirement be fulfilled within the first six quarters of enrollment.
Foreign Language Requirement

The foreign language requirement can be satisfied by one of the following methods: (1) completing a college-level foreign language course equivalent to level three or above at UCLA or (2) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in French, German, or Spanish, thereby earning College credit or (3) presenting a UCLA foreign language departmental examination score indicating competency through level three. Consult the Schedule of Classes for times and places of these regularly scheduled examinations. Students who wish to demonstrate proficiency in a language which is taught in a UCLA department that has no scheduled examination should contact the appropriate department to arrange for one. Students wishing to take an examination in a language not taught at UCLA should contact a College counselor.

The following language courses may be used to fulfill the foreign language requirement:

- African Languages (Linguistics) 1A-1B-1C or 15 (Swahili); 7A-7B-7C or 17 (Zulu); 11A-11B-11C or 25 (Yoruba); 3A-31B-31C or 35 (Bambara); 41A-41B-41C or 45 (Hausa); 51A-51B-51C (Amharic); 61A-61B-61C (Wolof); 75 (Chichewa); 85 (Setswana)
- Afrikaans (Germanic Languages) 105A and 105B
- Ancient Near East (Near Eastern Languages) 120A-120B-120C (Ancient Egyptian); 140A-140B-140C (Sumerian)
- Arabic (Near Eastern Languages) 1A-1B-1C
- Armenian (Near Eastern Languages) 101A-101B-101C or 104A-104B-104C
- Berber (Near Eastern Languages) 101A-101B-101C
- Bulgarian (Slavic Languages) 103A-103B-103C
- Chinese (East Asian Languages) 1, 2, and 3, or 1A, 2A, and 3A, or 8
- Czech (Slavic Languages) 102A-102B-102C
- Dutch (Germanic Languages) 103A-103B, and 103C, or 104A-104B
- French (French and Francophone Studies) 1, 2, and 3, or 8
- German (Germanic Languages) 1A, 2, and 3, or 8
- Greek (Classics) 1, 2, and 3, or 16: 15 (Modern Greek)
- Hebrew (Near Eastern Languages) 1A-1B-1C
- Hungarian (Slavic Languages) 101A-101B-101C
- Indigenous Languages of the Americas (Linguistics) 17 or 18-18B-18C (Quechua)
- Irish (Near Eastern Languages) 1A-1B-1C or 20A-20B-20C (Persian)
- Italian 1, 2, and 3, or 9
- Japanese (East Asian Languages) 1, 2, and 3, or 8
- Korean (East Asian Languages) 1A, 2A, and 3A, or 8
- Latin (Classics) 1, 2, and 3, or 16 or 100
- Polish (Slavic Languages) 102A-102B-102C
- Portuguese (Spanish and Portuguese) 1A, 2, and 3
- Romanian (Slavic Languages) 101A-101B-101C or 104
- Russian (Slavic Languages) 1A, 2, and 3, or 10 or 11A-13B (two units each) or 15A-15B or 100B
- Scandinavian 1, 2, and 3, or 8 (Swedish); 11, 12, and 13 (Norwegian); 21, 22, and 23 (Danish)
- Semitics (Near Eastern Languages) 140A-140B and 141 (Akkadian)
- Serbian/Croatian (Slavic Languages) 103A-103B-103C
- South and Southeast Asian Languages (East Asian Languages) 1A-1B-1C (Hindi); 50A-50B-50C (Vietnamese); 60A-60B-60C (Thai); 70A-70B-70C (Tagalog); 80A-80B-80C (Indonesian)
- Spanish (Spanish and Portuguese) 1, 2, and 3, or 2A and 3A
- Turkic Languages (Near Eastern Languages) 101A-101B-101C (Turkish); 111A-111B-111C (Uzbek); 115A-115B-115C (Azeri)
GENERAL EDUCATION REQUIREMENTS

General education (GE) is more than a checklist of required courses. It is a program of study that (1) reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge, (2) introduces students to the important ideas and themes of human cultures, (3) fosters appreciation for the many perspectives and the diverse voices that may be heard in a democratic society, and (4) 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.

In 2002, the College of Letters and Science changed its general education curriculum. Depending on when students enter UCLA and whether they enter as freshmen or transfer students, the requirements vary. Read the following carefully to determine the correct plan. For transfer students, applicability of either plan depends on whether or not they have completed the Intersegmental General Education Transfer Curriculum (IGETC).

Requirements for Freshmen Who Entered Fall Quarter 2002 and Transfer Students Entering Fall Quarter 2004

FOUNDATIONS OF KNOWLEDGE

Students on this plan follow a general education curriculum that is grouped into three areas or Foundations of Knowledge: 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. One of the 10 courses must be either a GE-approved lower division seminar or a second GE-approved Writing II course in the appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who complete a GE Cluster series (1) fulfill the College Writing II requirement, (2) complete a third of their general education requirements, (3) fulfill the GE seminar requirement, and (4) receive laboratory/demonstration credit where appropriate.

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

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

- Historical Analysis
- Social Analysis

Foundations of Scientific Inquiry. Four courses, two from each subgroup. One 5-unit course from each subgroup must include either a laboratory or demonstration or carry Writing II credit. Each of the other two courses may be 4 units:

- Life Sciences
- Physical Sciences

The aim of courses in this area is to ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. The courses also deal with some of the most impor-
tant 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 an academic counselor or see http://www.registrar.ucla.edu/ge/gelandsfall02.htm.

**Requirements for Freshmen Who Entered Prior to Fall Quarter 2002 and Transfer Students Entering Prior to Fall Quarter 2004**

For the approved list of courses, see http://www.registrar.ucla.edu/GE/gecontfall02.htm.

**Advanced Placement Test Credit**

Freshmen who entered Fall Quarter 2002 and transfer students entering Fall Quarter 2004 may not use Advanced Placement (AP) credit to satisfy the College’s 10-course foundational area general education requirement. See the AP Chart at http://www.registrar.ucla.edu/catalog/APFreshmen.pdf. Consult a departmental or College counselor for applicability of AP credit toward course equivalencies or satisfaction of Preparation for the Major requirements.

Students who entered as freshmen prior to Fall Quarter 2002 and transfer students entering prior to Fall Quarter 2004 should see the AP Chart at http://www.registrar.ucla.edu/catalog/APContinuing.pdf or consult a College counselor for application of AP credit.

**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 of Letters and Science GE requirements. Written verification from the dean at the other UC campus is required. Consult 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 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 College of Letters and Science GE requirements.

Students who are unable to complete one or two IGETC courses for good cause may petition the community college for partial completion of IGETC. If the petition is approved by the community college, the remaining courses must be completed with a minimum grade of C within one calendar year after admission to UCLA. Failure to

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**FIAT LUX SEMINARS**

In keeping with the ideal expressed by the University of California motto, *Let There be Light*, each term UCLA offers one-unit freshman seminars to illuminate the many paths of discovery explored by UCLA faculty.

In 2003-04, UCLA will offer up to 200 one-unit freshman seminar courses that span the rich array of fields studied at UCLA. Each course enrolls up to 15 students, with preference given to entering freshmen.

“This seminar gave me a chance to experience and explore a part of the world that was foreign to me. It made me think, it made me angry, sad, and it gave me hope.”

*student comment*

“One of the... drawbacks to receiving an outstanding undergraduate education at UCLA is the large lecture courses. Student learning takes place in small seminars. In small discussions, students have to be encouraged to explore and must be challenged to go deeper with their ideas... They must come to trust their own minds. Fiat Lux seminars encourage students to think and do.”

*faculty comment*
complete IGETC coursework within the specified time period results in a permanent denial of IGETC certification, and students are required to complete the College of Letters and Science GE requirements.

**DEPARTMENT REQUIREMENTS**

College of Letters and Science departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) the Major (upper division courses). Departments also set requirements for minors and specializations.

**PREPARATION FOR THE MAJOR**

Admission to a major often requires completion of a set of courses known as Preparation for the Major. 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 requirements; see the Curricula and Courses section of this catalog.

**THE MAJOR**

A major in the College of Letters and Science consists of a group of coordinated upper division courses and is designated as departmental, interdepartmental, or individual. All courses 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 the University 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 section of this catalog.

**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 subject area is studied from the perspectives of different disciplines and a greater degree of program flexibility is achieved.

**Individual Majors.** If students have some unusual but definite academic interest for which no suitable major is offered at the University and have completed at least three terms of work (45 units minimum) at the University with a grade-point average of 3.4 or better, they may petition for an individual major. The consent of the Honors and Undergraduate Programs Division and the assistance of a faculty adviser are required.

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 senior thesis of at least 8 but no more than 12 units is required. For details about individual majors, contact the Honors Programs Office, A311 Murphy Hall. **☎ 310-825-1553**

**Double Majors.** Students in good academic standing may be permitted to have a double major consisting of departmental 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.

With few exceptions, double majors in the same department are unacceptable. Students must designate one of the two majors as the principal one for the purpose of satisfying GE requirements. No more than 20 upper division units may be common to both majors.

Courses outside the division of the principal major which are required in preparation for that major may be used to satisfy GE requirements. Courses required for the secondary major (including preparation for the major) also may satisfy GE requirements.

**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.

Specializations are sequences of supplemental courses that enhance work in a particular area.

For a list of minors and specializations, see the chart at the beginning of this catalog; descriptions are in the Curricula and Courses section.

**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. 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 B average the preceding term in a total program of at least 15 units. First-term transfer students from any other campus of the University 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 quarter.

The Degree Progress Report (DPR) 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 catalog, check the online catalog for updates, and consult regularly with the College and department counselors to confirm they are satisfying all program requirements. Department counselors advise students on progress and completion of the major requirements. Letters and Science counseling staff assist students with College requirements and degree planning. To assist in degree planning, the Letters and Science Counseling Office provides DPRs on request. Students can also view DPRs through USRA or MyUCLA.

**MINIMUM PROGRESS/EXPECTED CUMULATIVE PROGRESS**

For freshmen who entered Fall Quarter 2001 and later and transfer students entering Fall Quarter 2003 and later, the following requirements apply. During a regular quarter of enrollment, undergraduate students in the College of Letters and Science 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 Chart at http://www.college.ucla.edu/up/counseling/regulations/exprog.htm. Expected cumulative progress is calculated at the end of each two quarters.

Undergraduate students who do not meet expected cumulative progress in the previous two completed quarters are placed on probation. Undergraduates who do not meet expected cumulative progress in the previous four completed quarters may be subject to disqualification from further registration at the University. See the website listed above for a complete description of the expected cumulative progress requirement.

For freshmen who entered prior to Fall Quarter 2001 and transfer students who entered prior to Fall Quarter 2003, see http://www.college.ucla.edu/ask/ask_email/faqs/index.htm for the minimum progress requirements.

**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 less than 10 units per quarter and is presumed to be of a permanent nature. On approval of part-time status, a reduction of the educational fee by one half and a reduction of the nonresident tuition fee 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 quarters. Once approved for part-time study, students must complete two courses of 10 units or less in each of the three consecutive quarters. Only under documented extraordinary circumstances is a one-course Study List approved. Documentation must specify that a one-course Study List is warranted.

Students should obtain the petition, Undergraduate Request for Fee Reduction, from the Letters and Science Counseling Office. The application for part-time study must be submitted with accompanying documentation by Friday of the second week of the quarter. Students approved for part-time study who become enrolled in or receive credit for 10 or more units during a quarter must pay the full fees for that quarter.

**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 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, they obtain approval on a Petition for Declaration of Major from the department or interdepartmental degree committee that governs their intended major.

**CHANGING A MAJOR**

Students in good academic standing who wish to change their major may petition to do so provided...
they can complete the new major within the 216-unit limit. 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. Some departments may have higher grade-point requirements for their preparation and major courses; consult the appropriate department regarding minimum standards.

### REENTERING STUDENTS AND THEIR MAJORS

Students returning to the University to resume their studies after an absence of several years may find their previous major area of study no longer available. They then must select a current major in which to complete their studies. Consult the Letters and Science Counseling Office for assistance.

### CREDIT LIMITATIONS

The following credit limitations apply to all undergraduates enrolled in the College. In most cases units are not deducted until the final term before graduation. Students with questions should consult a counselor in the Letters and Science Counseling Office.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Progress Report (DPR) from Undergraduate Admissions and Relations with Schools 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 of Letters and Science. Consult a counselor in the Letters and Science Counseling Office about these limitations.

#### Advanced Placement Tests

Advanced Placement (AP) Test 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 AP charts at [http://www.registrar.ucla.edu/catalog/APFreshmen.pdf](http://www.registrar.ucla.edu/catalog/APFreshmen.pdf) and [http://www.registrar.ucla.edu/catalog/APContinuing.pdf](http://www.registrar.ucla.edu/catalog/APContinuing.pdf) 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 Unit Limit

After completing 105 quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college.

### Credit by Examination

Within the College of Letters and Science, 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 UCLA 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 they 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 the Honors Programs Office, 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 completed a more advanced course. College credit for an international student’s native language and literature is allowed for (1) courses taken in native colleges and universities or (2) upper division (advanced language courses only) and graduate courses taken at the University of California or another English-speaking institution of approved standing. No credit is allowed for lower division courses.

#### Independent Study Courses

No more than 8 units of credit may be taken per term in special independent study courses. The total number of units allowed in such courses for a letter grade is 16; see specific restrictions under each departmental listing.

#### Performance Courses

No more than 12 units of music and/or dance performance courses (Ethnomusicology 91A through 91Z, 191A through 191Z, Music C90A through 90P, and World Arts and Cultures 5 through 16, 56 through 65, C109A, C113A, C115) may be applied toward the bachelor’s degree whether taken at UCLA or another institution.

#### Physical Education

No more than 4 units in physical education activities courses may be applied toward the bachelor’s degree.

#### Physics Courses

Any two or more courses from Physics 1A, 1AH, 6A, and 10 are limited to a total of 6 units of credit.

#### ROTC Courses

For students contracted in the Aerospace Studies Department, 36 units of aerospace studies credit may be applied toward the
requirements for the bachelor's degree; for students contracted in the Military Science Department, 26 units of military science credit may be applied; for students contracted in the Naval Science Department, 26 units of naval science credit may be applied.

Statistics Courses. No credit is allowed for more than one lower division course in statistics (Anthropology M80, Geography M40, Political Science 6, Sociology M18, Statistics 10, 11, M12) or for more than one sequence of such courses whether taken at UCLA or another institution.

300- and 400-Level Courses. No more than 8 units in the 300 and 400 series of courses may be applied toward the bachelor's degree. Credit is not granted for X300 and X400 courses taken in UCLA Extension.

HONORS

College of Letters and Science undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

COLLEGE HONORS

The highest academic recognition the College of Letters and Science confers on its undergraduates 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 provides exceptional Letters and Science undergraduates an opportunity to pursue individual excellence.

For details on the College Honors program and entry requirements, see http://www.college.ucla.edu/up/honors/.

DEAN’S HONORS

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on the student records: (1) a 3.75 GPA in any one term with at least 12 graded units and no grade of NP or I or (2) a 3.66 GPA and at least 56 grade points during the term, with no grade of NP or I. Dean’s Honors are automatically recorded on the transcript.

DEPARTMENTAL HONORS

Individual departments and programs in the College offer departmental honors programs. Admission and curricular requirements vary according to the department or program. See the Curricula and Courses section of this catalog for details, and consult the 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 at graduation that places them in the top five percent of College of Letters and Science graduates (GPA of 3.847 or better) for summa cum laude, the next five percent (GPA of 3.748 or better) for magna cum laude, and the next 10 percent (GPA of 3.598 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 eligibility. Students should consult their Degree Progress Reports or the Schedule of Classes for the most current calculations of Latin honors.

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
GRADUATE STUDY

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

With Graduate Division approval and subject to University minimum requirements, each department sets its own standards for admission and other requirements for the award of the master’s and doctoral degrees. For complete degree requirements, see Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

DAVID GEFFEN SCHOOL OF MEDICINE

Gerald S. Levey, Dean and Vice Chancellor

UCLA
12-105 Center for the Health Sciences
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http://www.medsch.ucla.edu

At the David Geffen School of Medicine at UCLA, faculty members and students play a dynamic role on campus and in Los Angeles communities. Not only are they in the clinics, wards, and operating rooms of the UCLA Medical Center and Los Angeles County Harbor-UCLA Medical Center, they are also at work in the facilities of the Molecular Biology Institute, the Department of Physiology, the Health Sciences Computer Center, the Neuropsychiatric Institute, and in dozens of other clinical and scientific units. They are in community clinics, health fairs, and schools, and assist at disaster sites in the international community.

Students at the UCLA Medical Center are exposed to the best of many worlds—strong research-oriented basic and clinical science departments, a hospital consistently ranked among the nation’s elite, superb affiliated clinical facilities that provide the full spectrum of teaching settings and patient populations, and a biomedical library that is considered one of the world’s best.

Geffen School of Medicine departments are each staffed by a distinguished faculty of respected researchers and practitioners. They have some of the most technologically advanced equipment and facilities, including two of the nation’s 56 hospital-based biomedical cyclotrons producing short-lived radioisotopes for biological research and diagnostic nuclear medicine procedures.

DEGREES AND PROGRAMS

The Geffen School of Medicine offers an M.D. degree program, allied health programs in affiliation with other hospitals and universities, postgraduate medical training programs, and the following master’s and doctoral degrees offered through the Graduate Division:

- Biological Chemistry (M.S., Ph.D.)
- Biomathematics (M.S., Ph.D.)
- Biomedical Physics (M.S., Ph.D.)
- Clinical Research (M.S.)
- Human Genetics (M.S., Ph.D.)
- Microbiology, Immunology, and Molecular Genetics (M.S., Ph.D.)
- Molecular and Medical Pharmacology (M.S., Ph.D.)
- Neurobiology (M.S., C.Phil., Ph.D.)
- Neuroscience (Ph.D.)
- Pathology—Cellular and Molecular Pathology (M.S., Ph.D.)
- Physiology (M.S., Ph.D.)
- Psychiatry and Biobehavioral Sciences Clinical Psychology Internship (Certificate)

M.D. DEGREE PROGRAM

The Doctor of Medicine (M.D.) degree program develops a comprehensive scientific and humanistic approach to patient care that includes basic sciences, preventive medicine, diagnosis, and therapeutics. Clinical skills are taught in the context of anatomical, molecular, pathophysiological, and psychosocial factors in health, disease, and treatment.
The curriculum is presented in an integrated, organ system-based curriculum, with problem-based learning and laboratories to maximize the educational experience. Because medical school is but one phase in a physician’s education, the curriculum prepares students for a future in which scientific knowledge, social values, and human needs are ever changing. Formats for instruction include lectures, tutorials, seminars, laboratories, demonstrations, and visits to physicians’ offices; students are exposed to patients from their first week through graduation.

The M.D. program is a four-year medical curriculum that prepares students broadly for careers in research, practice, or teaching in the medical field of their choice. The curriculum emphasizes issues of growing importance such as primary care, research opportunities for careers in academic medicine, human genetics and the evolving world of gene therapy, psychosocial issues of health and disease, preventive medicine, and medical ethics.

For details on the M.D. curriculum or to apply to the program, contact the Geffen School of Medicine Admissions Office, 12-105 CHS, UCLA, Box 957035, Los Angeles, CA 90095-7035. See http://www.career.ucla.edu/gradschool/health/md.asp for details on the four-year premedical studies program.

**SPECIAL PROGRAMS**

Special programs address the needs and issues of specific communities and populations.

**UCR/UCLA Thomas Haider Biomedical Sciences Program**

The UCR/UCLA Thomas Haider Biomedical Sciences Program is a cooperative venture involving UC Riverside, the Geffen School of Medicine, and selected Riverside community sites. Students may earn both the B.S. and M.D. degrees through a combined program maximizing the curricula of both. See http://www.biomed.ucr.edu.

**Drew/UCLA Medical Education Program**

The Drew/UCLA Medical Education Program is designed to attract students who are interested in addressing the concerns of underserved populations. Students in the program spend their first two years at the UCLA campus and complete their last two years of clinical work at the King/Drew Medical Center on the Charles R. Drew University of Medicine and Science campus. See http://www.cdrewu.edu.

**ARTICULATED AND CONCURRENT DEGREE PROGRAMS**

The Geffen School of Medicine and the Graduate Division offer an articulated degree program that allows students to earn both the M.D. and Ph.D. in about seven years, depending on the course of study and research. The Ph.D. may be awarded in one of several medical sciences fields. Call the Medical Scientist Training Program for details. ☎ 310-794-1817

A concurrent program with the John E. Anderson Graduate School of Management allows medical students to earn both the M.D. and M.B.A. degrees over five years by following a designated course of study and some shared coursework. Separate application must be made to the Anderson School during the third year of medical school. ☎ 310-825-3970

A program with the School of Public Health enables students to pursue the M.P.H. degree while attending medical school. ☎ 310-825-3970

**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 West Los Angeles VA Medical Centers, Sepulveda-San Fernando Valley Program, and many others. Programs at the affiliated institutions broaden the scope of the teaching programs by providing 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.

**ALLIED HEALTH PROGRAMS**

For information on allied health programs in the Center for the Health Sciences, call ☎ 310-794-8352.

**NEUROPSYCHIATRIC INSTITUTE**

The UCLA Neuropsychiatric Institute (NPI) is one of the world’s leading interdisciplinary research and education institutes devoted to the understanding of complex human behavior. Ten 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 provide a comprehensive and outstanding research and training environment for the study of neuroscience and behavior.

The research portfolio of the 400 faculty, 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 disorder. For further information, see http://www.mentalhealth.ucla.edu.
GRADUATE SCHOOL OF EDUCATION AND INFORMATION STUDIES

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http://www.gseis.ucla.edu

The Graduate School of Education and Information Studies (GSEIS) is dedicated to inquiry, the advancement of knowledge, the improvement of professional practice, and service to the education and information professions. GSEIS 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 GSEIS 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. GSEIS is committed to the highest quality professional education and to the application of research 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 and doctoral training programs prepare top scholars and researchers in their respective fields, while future librarians and information professionals, teachers, student affairs counselors, school administrators, and superintendents are trained in the various professional degree programs. Additionally, the Corinne Seeds University Elementary School provides an innovative educational program for students 4 to 12 years old.

DEGREES

The school offers the following degrees, in addition to an undergraduate Education Studies minor:
Education (M.A., M.Ed., Ed.D., Ph.D.)
Educational Administration (Joint Ed.D. with UC Irvine)
Library and Information Science (M.L.I.S., Ph.D.)
Moving Image Archive Studies (M.A.)
Special Education (Joint Ph.D. with California State University, Los Angeles)

Articulated Degree Programs

The school offers two articulated degree programs:
Education M.Ed./Latin American Studies M.A.
Library and Information Science M.L.I.S./Latin American Studies M.A.

Concurrent Degree Programs

The school offers three concurrent degree programs:
Education M.Ed., M.A., Ed.D., or Ph.D./Law J.D.
Library and Information Science M.L.I.S./History M.A.
Library and Information Science M.L.I.S./Management M.B.A.

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 average of B (3.0 on a 4.0 scale) or better is required—or its equivalent if the letter grade system is not used—for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Further requirements for international students are explained in the Graduate Study section. See http://www.gdnet.ucla.edu/gasaa/admissions/admisinfo.html.

Departments in the school set additional admission requirements. See http://www.gseis.ucla.edu/admissions/.

DEGREE REQUIREMENTS

Specific degree requirements vary according to the department and program. Refer to Program Require-
ments for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

RESEARCH CENTERS

The centers outlined below provide GSEIS with valuable resources that support school programs and research. See http://www.gseis.ucla.edu/research/.

CALIFORNIA CENTER FOR THE BOOK

The California Center for the Book is a reading promotion agency that celebrates California’s rich literary heritage and promotes reading, libraries, literacy, and authorship. In support of its mission, the center develops and supports local and statewide programs and initiatives related to books and reading for the citizens of California, develops and maintains book- and literacy-related resources, and encourages and supports the study of print and electronic culture. The center is supported by the U.S. Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, administered in California by the State Librarian. See http://www.calbook.org.

CENTER FOR ENTREPRENEURIAL LEADERSHIP CLEARINGHOUSE ON ENTREPRENEURSHIP EDUCATION

The Center for Entrepreneurial Leadership Clearinghouse on Entrepreneurship Education (CELCEE) is a joint project of UCLA and the Kauffman Center for Entrepreneurial Leadership. CELCEE acquires information from diverse sources—journal articles, websites, syllabi, conferences, curriculum guides, government publications, videos, books, and software—that pertains to entrepreneurship education and related topics from K-12 to postgraduate studies and from rural America to urban Asia. The CELCEE staff provides abstracts of the resources, which are indexed and organized in an online database that meets all national Library of Education standards for web pages. See http://www.celcee.edu.

CENTER FOR INTERNATIONAL AND DEVELOPMENT EDUCATION

The Center for International and Development Education (CIDE) is a research and action center whose mission is to provide quality information on a variety of issues 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. CIDE acts as a hub for researchers and organizations to network with and learn about critical issues in international and development education from a wide range of fields and disciplines. See http://www.gseis.ucla.edu/-cide/.

CENTER FOR RESEARCH AND INNOVATION IN ELEMENTARY EDUCATION

The Center for Research and Innovation in Elementary Education (CONNECT) provides a unique setting where nationally recognized scholars work together with teachers and administrators to improve education for the nation’s children. Recognizing the dramatic changes in the demographics of the American classroom and the challenges they present to public schools, the center combines the resources of UCLA and its laboratory elementary school to foster collaboration between researchers and practitioners who search for solutions to the problems facing schools as well as strategies for capitalizing on diversity. See http://www.connect.gseis.ucla.edu.

CENTER FOR RESEARCH ON EVALUATION, STANDARDS, AND STUDENT TESTING

Funded by the U.S. Department of Education and the Office of Educational Research and Improvement, the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) conducts research on topics related to K-12 educational testing. Research is dispersed in technical reports, newsletters, videos, assessments, scoring rubrics, guidebooks, and research articles. See http://www.cresst.org.

CENTER FOR STUDY OF EVALUATION

The Center for Study of Evaluation (CSE) is devoted to educational research, development, training, and dissemination. For over 35 years, CSE has been at the forefront of efforts to improve the quality of education in America through systematic evaluation practices. As it helps pioneer valid and sensitive evaluation and testing techniques and promotes the use of evaluation for reasoned decision making, CSE ensures the best use of student time and taxpayer money.

Focusing on questions basic to public education and its accountability, CSE provides leadership to the field 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. See http://www.cresst.org.

CENTER FOR STUDY OF URBAN LITERACIES

The Center for Study of Urban Literacies supports problem-oriented research that seeks to improve the educational experiences of urban children and communities. Specifically, the center houses three distinct but related research strands: (1) the study of language, culture, and human development, (2) the social and cognitive consequences of educational policies and practices, and (3) the study of new and empowering pedagogies. In addition, the center offers programs to K-12 students that are based on
CENTER X
Center X draws from the resources of GSEIS, including the school’s contributions to education scholarship, its national research centers, and its schooling research and policy analysis programs. The center transforms the UCLA preservice Teacher Education Program and its professional development programs for practicing professional educators into a new configuration of collaborative activities among UCLA faculty members and K-12 teachers. It provides rigorous professional education as it seeks to improve urban schooling for Los Angeles children. See http://centerx.gseis.ucla.edu.

EDUCATIONAL RESOURCES INFORMATION CENTER
The Educational Resources Information Center (ERIC) is a national information system dedicated to the dissemination of educational research reports, practitioner-oriented materials, and other documentary sources of information that can be used to develop more effective educational methods and programs. First established by the U.S. Office of Education in 1966, ERIC is now administered by the Office of Educational Research and Improvement of the U.S. Department of Education. ERIC operates through a network of 16 subject-specialized clearinghouses, each responsible for acquiring, selecting, indexing, and abstracting materials in its area of interest. Currently, the database contains nearly one million citations to documents and journal articles. See http://www.gseis.ucla.edu/ERIC/eric.html.

HIGHER EDUCATION RESEARCH INSTITUTE
The Higher Education Research Institute (HERI) serves as an interdisciplinary center for research, evaluation, information, policy studies, and research training in postsecondary education. HERI’s research program covers a variety of topics, including the outcomes of postsecondary education, leadership development, faculty performance, federal and state policy, and educational equity. Visiting scholars, faculty members, and graduate students have made use of HERI facilities and research resources since its affiliation with UCLA in 1973. The center’s holdings include more than 100 datasets that are regularly maintained for analysis of postsecondary education. See http://www.gseis.ucla.edu/HERI/HERI.html.

INSTITUTE FOR DEMOCRACY, EDUCATION, AND ACCESS
The Institute for Democracy, Education, and Access (IDEA) is a network of UCLA scholars and students, professionals in schools and public agencies, advocates, community activists, and urban youth. IDEA’s mission is to make high-quality public schooling and successful college participation routine occurrence in low-income neighborhoods of color. Research and advocacy are the tools IDEA uses to empower individuals, build relationships, and create knowledge for civic participation and social change. Linking a great public research university with committed educators and supportive community alliances, IDEA seeks to become the intellectual home of a broad-based social movement that challenges the pervasive racial and social class inequalities in Los Angeles and in cities around the nation. See http://www.idea.gseis.ucla.edu.

INSTITUTE FOR STUDY OF EDUCATIONAL ENTREPRENEURSHIP
Through the Institute for Study of Educational Entrepreneurship (ISEE) scholars and practitioners collaborate to investigate and analyze the current and potential impact of educational entrepreneurship—for profit, nonprofit, and intraorganization— as driving forces for promoting educational reform and equitable access in the public school sector. See http://www.isee.gseis.ucla.edu.

PAULO FREIRE INSTITUTE
The Paulo Freire Institute/UCLA (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. The objective of PFI is to bring together research, teaching, and technology while concentrating on four major areas: teacher education, a comparative perspective on Latin American education, the politics of education (research on gender, race, class, and the state), and Paulo Freire’s political philosophy and critical pedagogy. See http://www.paulofreireinstitute.org.

UC ALL-CAMPUS CONSORTIUM ON RESEARCH FOR DIVERSITY
The UC All-Campus Consortium on Research for Diversity (UC ACCORD) is an interdisciplinary, multicampus research center devoted to a more equitable distribution of educational resources and opportunities in California’s diverse public schools and universities. This distinctive UC voice serves as an information and research clearinghouse and catalyst for promoting the delivery of high-quality, equitable schooling to all students. UC ACCORD harnesses the research expertise of the University of California to identify strategies that will increase college preparation, access, and retention. Policymakers, researchers, teachers, outreach staff, and students all benefit from this source of reliable information for equitable education policy and practice. See http://www.ucaccord.gseis.ucla.edu.
UCLA MIGRANT STUDENT LEADERSHIP INSTITUTE

UCLA, in partnership with the Office of Migrant Education, the Migrant Regional Directors, and the Concilio de Padres Migrantes, has developed and hosted the statewide Leadership Institute. The institute consists of two separate residential programs that provide an experiential and academic bridge to higher education and future leadership. In particular, the institute develops the intellectual skills and leadership abilities of high-achieving migrant students by providing a rigorous academic and leadership academy supplemented with significant academic and extracurricular activities.

UCLA ONLINE INSTITUTE FOR CYBERSPACE LAW AND POLICY

With the growth and development of cyberspace law as a separate discipline, a dynamic new body of scholarship has emerged. The Online Institute’s Cyberspace Law Bibliography—updated regularly since 1995—provides an overview of recent books and journal articles in this area and includes a growing number of links to the works themselves. See http://www.gseis.ucla.edu/iclp/hp.html.

HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Vijay K. Dhir, Dean

UCLA
6426 Boelter Hall
Box 951601
Los Angeles, CA 90095-1601
(310) 825-2826
http://www.engineer.ucla.edu

The Henry Samueli School of Engineering and Applied Science (HSSEAS) has contributed to this nation’s pursuit of knowledge and technology since it was established in 1945 as the UCLA College of Engineering. Today the school has a versatile program of teaching and research that addresses our national security requirements and U.S. worldwide competitive commercial needs.

The school actively supports teaching and research in traditional and emerging fields of applied science and technology, including bioengineering, computer networking, micromachines, the renewal of national infrastructures, advanced energy systems, protection of the environment and natural resources, wireless communications and computing, optoelectronics, nanotechnology and manufacturing, smart structures and new materials, signal processing, parallel computing, configurable computing, distributed microsystem networks, sensor technologies, automated flight, semiconductor manufacturing, biotechnology, and biomedical engineering.

Students receive their professional education through classroom presentations and real-world applications. The B.S. degree curriculum provides exposure to the humanities, social sciences, and fine arts and recognizes the responsibility of engineers to create, protect, and manage technology with due regard for ethics and human values. Students committed to a high standard of achievement are invited to contribute to the great success of engineering at UCLA.

DEPARTMENTS AND PROGRAMS

The Henry Samueli School of Engineering and Applied Science has seven departments and one interdepartmental program offering study in aerospace engineering, bioengineering, biomedical engineering, chemical engineering, civil engineering, computer science and engineering, electrical engineering, manufacturing engineering, materials engineering, and mechanical engineering—all of which are accredited by the Accreditation Board for Engineering and Technology (ABET), the nationally recognized accrediting body for engineering programs. The computer science and computer science and engineering programs are accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. ☎ 410-347-7700

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

DEGREES

The school offers the following degrees:

- Aerospace Engineering (B.S., M.S., Ph.D.)
- Biomedical Engineering (M.S., Ph.D.)
- Chemical Engineering (B.S., M.S., Ph.D.)
- Civil Engineering (B.S., M.S., Ph.D.)
- Computer Science (B.S., M.S., Ph.D.)
- Computer Science and Engineering (B.S.)
- Electrical Engineering (B.S., M.S., Ph.D.)
- Engineering (M.Engr., Engr.)
- Engineering and Applied Science (Graduate Certificate of Specialization)
- Manufacturing Engineering (M.S.)
- Materials Engineering (B.S.)
- Materials Science and Engineering (M.S., Ph.D.)
- Mechanical Engineering (B.S., M.S., Ph.D.)

Concurrent Degree Program

The school offers one concurrent degree program:

Computer Science M.S./Management M.B.A.
UNDERGRADUATE ADMISSION

Applicants for admission to the school must satisfy the University admission requirements as outlined in the Undergraduate Study section. Students must select a major within the school when applying for admission. 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 section and should take required tests by the December test date, since scores are part of the review process. Instruct the testing agencies to send results directly to UCLA Undergraduate Admissions and Relations with Schools.

Applicants seeking admission to the school in freshman standing must also satisfy the following University admission requirements:

Credit for Advanced Placement Tests. Students may fulfill part of the school requirements with credit allowed at the time of admission for College Board Advanced Placement (AP) Tests with scores of 5, 4, or 3. Students with AP Test credit may exceed the 213-unit maximum by the amount of this credit. AP Test credit for freshmen entering in Fall Quarter 2003 fulfills HSSEAS requirements as indicated on the school AP chart at http://www.registrar.ucla.edu/catalog/APEngr.pdf.

Students who have completed 36 quarter units after high school graduation at the time of the examination receive no AP Test 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, mathematics, physics, computer programming, English composition, 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 complete the remaining requirements for one of the B.S. degrees in six terms (two 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 UCLA’s Chemistry and Biochemistry 20A, 20B, 20L (only Chemistry and Biochemistry 20A is required for the Computer Science and Engineering degree; the Computer Science degree does not require chemistry; the Chemical Engineering curriculum also requires Chemistry and Biochemistry 30A, 30AL, 30B, 30BL, which do not need to be taken prior to admission to UCLA)
3. Physics courses equivalent to UCLA’s Physics 1A, 1B, 1C, 4AL, 4BL, depending on curriculum selected
4. Engineering courses equivalent to UCLA’s Civil and Environmental Engineering 15 or Computer Science 31 or Mechanical and Aerospace Engineering 20
5. Additional life sciences (4 units), English composition (5 units), and humanities/social sciences courses (total of 16 quarter units minimum) equivalent to HSSEAS general education (GE) courses
Transfer students must also complete a course equivalent to UCLA’s English Composition 3 and a second more advanced course in English composition. 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, are given credit for certain engineering core requirements.

A course in digital computer programming, using a higher-level language such as FORTRAN, PASCAL, C, or C++, satisfies the computer programming requirement. Applicants to majors in Computer Science, Computer Science and Engineering, and Electrical Engineering should take C++.

Many sophomore courses in circuit analysis, strength of materials, and properties of materials may satisfy Electrical Engineering 100, Civil and Environmental Engineering 108, and Materials Science and Engineering 14 requirements respectively. Check with the Office of Academic and Student Affairs.

After students have completed 105 quarter units (regardless of where the units are completed), they do not receive unit credit or subject credit for courses completed at a community college.

Undergraduate Degree Requirements
Henry Samueli School of Engineering and Applied Science students must meet three types of requirements for the Bachelor of Science degree:

1. University requirements
2. School requirements
3. Department requirements

University Requirements
The University of California has two requirements that undergraduates must satisfy in order to graduate: (1) Subject A or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

School Requirements
The Henry Samueli School of Engineering and Applied Science has five requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, English composition, and general education.

Unit Requirement
The minimum units allowed for HSSEAS students is between 181 and 203, 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 C (2.0) 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 B.S. degree, 36 must be earned in residence in HSSEAS on this campus. No more than 16 of the 36 units may be completed in Summer Sessions at UCLA.

Structure of a Degree

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<th>University Requirements</th>
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<td>1. Subject A or English as a Second Language</td>
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<tr>
<th>School Requirements</th>
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<th>Department Requirements</th>
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<td>1. Major Field Courses</td>
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<td>2. Core Courses</td>
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<td>3. Mathematics Courses</td>
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Courses that do not satisfy the University, school, or department requirements are referred to as electives and are used to meet the minimum unit requirement for graduation.

English Composition Requirement
Students must attain a minimum grade of C to satisfy the English Composition 3 requirement, which must be met by the end of the second year of enrollment at UCLA (a grade of C– does not satisfy this requirement). Undergraduates who have not taken (or otherwise satisfied the requirement for) English Composition 3 at the time they are admitted must complete the course at UCLA during Fall, Winter, Spring, or Summer Quarter. Students may also complete the equivalent to English Composition 3 at any other UC campus during the Summer Quarter only.
GENERAL EDUCATION REQUIREMENTS

HSSEAS general education (GE) requirements must be selected from the GE list at http://www.seasoasa.ucla.edu/ge.html as follows:

1. Six courses from the humanities and social sciences (eight courses for Computer Science majors) with at least two courses from each category
2. One life sciences course (two courses for Computer Science majors; this requirement is automatically satisfied for Chemical Engineering majors)

For item 1, at least three courses must be in the same academic department or must otherwise reflect coherence in subject matter. Of the three, at least two must be upper division courses selected from the approved HSSEAS GE course list.

One language course at level four or above may be applied toward the humanities section of the HSSEAS GE requirements. See an academic counselor in 6426 Boelter Hall about language courses.

Computer Science, Computer Science and Engineering, and Electrical Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements.

Students may take one course per term on a Passed/Not Passed basis if they are in good academic standing and are enrolled in at least three and one-half courses (14 units) for the term. Only HSSEAS general education courses (with the exception of English Composition 3 and the ethics course) may be taken on a Passed/Not Passed basis. For details on P/NP grading, see Grading in the Academic Policies section or consult the Office of Academic and Student Affairs.

DEPARTMENT REQUIREMENTS

Bachelor’s degree requirements include the following categories, depending on the program selected:

1. Fourteen to 21 engineering major field courses (56 to 84 units)
2. One to 10 engineering core courses (4 to 40 units)
3. One to three upper division mathematics courses (4 to 12 units)

Lists of courses approved to satisfy specific curricular requirements are available from the Office of Academic and Student Affairs.

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. 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 the University or other academic action. Study Lists require approval of the dean of the school or a designated representative.

Students are expected to enroll in at least 12 units each term. Students enrolling in less than 12 units must obtain approval by petition to the dean prior to enrollment in courses. 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 HSSEAS 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 undergraduates enrolled in the school:

Advanced Placement Tests. Some portions of AP Test 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 HSSEAS AP chart at http://www.registrar.ucla.edu/catalog/APEngr.pdf.

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

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.

DOUBLE MAJORS

Students in good academic standing may be permitted to have a double major consisting of a major within HSSEAS and a major outside the school (e.g., Electrical Engineering and Economics). Students are not permitted to have a double major within the school (e.g., Chemical Engineering and Civil Engineering). Contact the Office of Academic and Student Affairs for details.
COUNSELING SERVICES

New undergraduates 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. Students are assigned a faculty adviser in their particular specialization in their sophomore year or earlier.

In addition, undergraduates 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 the degrees and University and school regulations and procedures. It is the students’ responsibility to periodically meet with their academic counselor in the Office of Academic and Student Affairs, 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 transfers may also select the curriculum in the catalog in effect at the time they began their community college work in an engineering program, providing attendance has been continuous since that time.

Undergraduates may use the computerized HSSEAS Academic Program Planner (APP), an interactive system that lets students know if their programs meet the requirements for graduation. Students beginning upper division coursework in the major are required to submit an Academic Program Proposal to the Office of Academic and Student Affairs for approval by the associate dean.

Academic counselors in the Office of Academic and Student Affairs assist students with University procedures and answer questions related to general requirements.

HONORS

HSSEAS 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 an overall grade-point average at graduation which places them in the top five percent of the school (GPA of 3.831 or better) for summa cum laude, next five percent (GPA of 3.707 or better) for magna cum laude, and the next 10 percent (GPA of 3.554 or better) for cum laude.

Based on grades achieved in upper division courses, engineering students must have a 3.831 grade-point average for summa cum laude, a 3.707 for magna cum laude, and a 3.554 for cum laude. For all designations of honors, students must have a minimum 3.25 grade-point average in their major field courses. To be eligible for an award, students should have completed at least 80 upper division units at the University of California.

TAU BETA PI

The UCLA chapter of Tau Beta Pi, the national engineering honor society, encourages high scholarship, provides 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 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, consult the Office of Academic and Student Affairs in 6426 Boelter Hall well in advance of application dates for admission to graduate standing.

**SPECIAL PROGRAMS**

**EXTRACURRICULAR ACTIVITIES**

Students are encouraged to participate in UCLA extracurricular activities, especially those relevant to engineering, such as the student engineering society (the 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’s Executive Committee.

**WOMEN IN ENGINEERING**

Among HSSEAS students, women make up approximately 21 percent of the undergraduate and 18 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 which 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 women high school students. See http://www.seas.ucla.edu/swe/.

**CONTINUING EDUCATION**

Continuing education in engineering is developed and administered by the UCLA Extension (UNEX) Department of Engineering, Information Systems, and Technical Management in close cooperation with HSSEAS. The department offers evening classes, short courses, certificate programs, special events, and education and training at the workplace. The office (540 UNEX, 10995 Le Conte Avenue) is open Monday through Friday. Call (310) 825-4100 for information systems class programs, (310) 825-3344 for short course programs, (310) 825-0328 for engineering classes, and (310) 825-3858 for technical management programs. See http://www.uclaextension.org.

**GRADUATE ADMISSION**

In addition to meeting the requirements of the Graduate Division, applicants to the graduate engineering programs are required to take the General Test of the Graduate Record Examination (GRE). Applicants for the graduate computer science programs are required to take the GRE General Test and Subject Test in Mathematics or Computer Science. Specific information about the GRE may be obtained from the department of interest.

Students entering the Engineer/Ph.D. 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. Normally the M.S. degree is required for admission to the Ph.D. program. Exceptional students, however, can be admitted to the Ph.D. program without having an M.S. degree.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

To submit a graduate application, see http://www.seasoasa.ucla.edu/adm_grad.html. From there connect to the site of the preferred department or program and go to the online graduate application.

**GRADUATE DEGREE REQUIREMENTS**

Graduate degree information is updated annually in Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.
MASTER OF SCIENCE DEGREES

No lower division courses may be applied toward graduate degrees. In addition, the following upper division courses are not applicable toward graduate degrees: Chemical Engineering M105A, 199, Civil and Environmental Engineering 106A, 108, 199, Computer Science M152A, M152B, M171L, 199, Electrical Engineering 100, 101, 102, 103, 110L, M116D, M116L, 199, Materials Science and Engineering 110, 120, 130, 131, 131L, 132, 150, 160, 161L, 190, 191L, 199, Mechanical and Aerospace Engineering 102, 103, M105A, 105D, 199.

Individual departments within the school 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 M.S. program focuses on one major field. The major fields and subdisciplines offered at the M.S. level in most cases parallel those listed below for the Ph.D. program. There are some differences (for example, manufacturing engineering in the Department of Mechanical and Aerospace Engineering is offered only at the M.S. level) Contact the department concerned regarding possible differences between the M.S. and Ph.D. 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 the M.S. degrees, 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 courses in HSSEAS. 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 else provide 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 the award of the M.S. degree is expected. There is no examination under the thesis plan.

Comprehensive Examination Plan

The comprehensive examination, which is offered every term, is required in written form only. The comprehensive examining committee may conduct an oral query after review of the written examination. In case of failure, students may be reexamined once with the consent of their departmental graduate adviser.

CONCURRENT DEGREE PROGRAM

A concurrent degree program between HSSEAS and the John E. Anderson Graduate School of Management allows students to earn two master’s degrees simultaneously: the M.B.A. and the M.S. in Computer Science. Contact the Office of Academic and Student Affairs for details.

MASTER OF ENGINEERING DEGREE

The Master of Engineering (M.Eng.) 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. For details, write to the HSSEAS Office of Academic and Student Affairs, 6426 Boelter Hall, UCLA, Box 951601, Los Angeles, CA 90095-1601. ☎ 310-825-1704

ENGINEER DEGREE

HSSEAS offers an Engineer (Engr.) degree at a level equivalent to completion of preliminaries in the Ph.D. program. The Engineer degree represents considerable advanced training and competence in the engineering field but does not require the research effort involved in a Ph.D. dissertation.

Requirements for the Engineer degree are identical to those of the Ph.D. 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 Ph.D. and Engineer degree programs are administered interchangeably, so that a student in the Ph.D. program may exit with an Engineer degree or pick up the Engineer degree en route to the Ph.D. degree; similarly, a student in the Engineer degree program may continue to the Ph.D. 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.

DOCTORAL DEGREES

The Ph.D. 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 further information, contact the individual departments.

**Fields of Study**

Established fields of study for the Ph.D. 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.

**Biomedical Engineering Interdepartmental Program.** Bioacoustics, speech, and hearing; biocybernetics; biomechanics, biomaterials, and tissue engineering; biomedical instrumentation; biomedical signal and image processing; molecular and cellular bioengineering; neuroengineering

**Chemical Engineering Department.** Chemical engineering

**Civil and Environmental Engineering Department.** Environmental engineering, geotechnical engineering, structures (structural mechanics and earthquake engineering) water resources engineering

**Computer Science Department.** Artificial intelligence, computer networks, computer science theory, computer system architecture, information and data management, scientific computing (biomedical engineering systems and biocybernetics, physical systems), software systems and languages

**Electrical Engineering Department.** Applied mathematics (established minor field only), communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization/operations research, integrated circuits and systems, photonics and optoelectronics, plasma electronics, signal processing, solid-state electronics

**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 and fusion engineering (minor field only) dynamics, fluid mechanics, heat and mass transfer, manufacturing and design, nanoelectromechanical/microelectromechanical systems (NEMS/MEMS), structural and solid mechanics, systems and control

**GRADUATE CERTIFICATE OF SPECIALIZATION**

A Certificate of Specialization is available in all areas, except computer science, offered by HSSEAS. Requirements for admission are the same as for the M.S. 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 B average in all courses applicable to the certificate. In addition, graduate certificate candidates are required to maintain a minimum B average in 200-series courses used in the certificate 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 regarding the certificate programs may be obtained from each department office.

Courses completed in HSSEAS for a Certificate of Specialization may subsequently be applied toward master's and/or doctoral degrees.

**JOHN E. ANDERSON GRADUATE SCHOOL OF MANAGEMENT**

Bruce G. Willison, Dean

UCLA
F407 Mullin Management Commons
Box 951481
Los Angeles, CA 90095-1481
(310) 825-6121
fax: (310) 206-9830
http://www.anderson.ucla.edu

In today's rapidly changing global marketplace, it is essential that professional managers be conversant with the latest concepts and principles of management. At the UCLA John E. Anderson Graduate School of Management, which is consistently ranked among the best such schools in the nation,
students prepare to become first-rate managers with both specialized skills and a broad understanding of the general economic, business, and managerial environment. This background enables them to become effective and efficient directors of organizations and people whether they are in the private, public, or not-for-profit sector.

Specifically, the Anderson School offers the business community a wide range of higher education programs that provide state-of-the-art information in a variety of fields. Through its faculty, the school advances the art and science of management by engaging in fundamental and cutting-edge research in all fields of management and by educating scholars who can continue to create this new knowledge.

John E. Anderson Graduate School of Management students come from diverse professional and educational backgrounds and seek equally diverse personal and professional goals. Whether they pursue the professional M.B.A., the academic M.S., or a Ph.D. in Management, they graduate with a broad understanding of people and organizations and with a sound technical background in the economic and mathematical concepts of management planning and decision making.

The school offers a variety of programs leading to graduate degrees at the master’s and doctoral levels. These include both an academic (M.S.) and professional (M.B.A.) master’s, as well as a 21-month Executive M.B.A. Program designed for working managers who are moving from specialized areas into general management and a three-year Fully Employed M.B.A. Program for emerging managers. A Ph.D. in Management is also offered, as are a certificate Executive Program and research conferences and seminars for experienced managers.

The school also offers an undergraduate minor in Accounting and several undergraduate courses in management. Enrollment in these courses, although open to all University students who have completed the requisites, is limited. The school limits the number of courses taken by undergraduate students to 11.

**DEGREES**

The school offers the following degrees, in addition to an undergraduate Accounting minor:
- Master of Business Administration (M.B.A.)
- Master of Science (M.S.)
- Doctor of Philosophy (Ph.D.)

**Concurrent Degree Programs**

The school offers eight concurrent degree programs:
- Management M.B.A./Computer Science M.S.
- Management M.B.A./Latin American Studies M.A.
- Management M.B.A./Law J.D.
- Management M.B.A./Library and Information Science M.L.I.S.
- Management M.B.A./Medicine M.D.
- Management M.B.A./Nursing M.S.N.
- Management M.B.A./Public Health M.P.H.
- Management M.B.A./Urban Planning M.A.

**RESEARCH CENTERS AND PROGRAMS**

Interdisciplinary research centers provide valuable resources that support school programs. See http://www.anderson.ucla.edu/faculty_research/.

**BUSINESS FORECASTING PROJECT**

Using large-scale econometric models, the Business Forecasting Project makes quarterly and long-term forecasts of the national and California economies, focusing on unemployment and employment by three-digit SIC code. Results of the forecasts are announced at conferences attended by members of the media and leaders in business and government. See http://uclaforecast.com.

**CENTER FOR COMMUNICATION POLICY**

The UCLA Center for Communication Policy is a forum for the discussion and development of policy alternatives addressing the leading issues in media and communication. Communication policy at its core begins with the individual and the family. The center conducts and facilitates research, courses, seminars, working groups, and conferences designed to have a major impact on policy at the local, national, and international levels. In addition, it provides a base for visiting scholars who are engaged in efforts to examine and shape communication policy. The center’s goals include using the vast intellectual resources of UCLA to deal with some of the most important concerns of the day and to have a transforming effect on the issues. Since early 1998 the center has been based in the Anderson School and maintains affiliations with the Social Sciences Division of the College of Letters and Science and the School of Public Policy and Social Research. See http://ccp.ucla.edu.

**CENTER FOR HEALTH SERVICES MANAGEMENT**

The Center for Health Services Management is operated jointly by the Anderson School and the School of Public Health. Organized as a partnership with the health services management community, the center’s activities are designed to be supportive of management practitioners in the health care community. The center offers management education programs uniquely suited to managers and executives from health care organizations. In addition, it conducts research carefully identified to further the practice of management of health service organizations. Programs have included a top management course for Cedars-Sinai Medical Center and a man-
The Center for International Business Education and Research (CIBER) is dedicated to enhancing the teaching and understanding of issues related to the global marketplace. The center actively increases international business research across the campus through the direct funding of faculty research travel, graduate student research assistantships, and academic conferences. See http://www.anderson.ucla.edu/research/ciber/.

Center for Management in Information Economy

The Center for Management in Information Economy (CMIE) focuses on current management processes and practices being used in businesses and organizations involved in the creation, management, and delivery of digital information as a key component of their products and services. The center acts as a forum and catalyst to relate the capabilities of the academic community to the needs of the business community. See http://www.anderson.ucla.edu/research/cmie/.

Harold Price Center for Entrepreneurial Studies

The Harold Price Center for Entrepreneurial Studies provides academic and extracurricular activities that prepare M.B.A. candidates for the challenge of business management in entrepreneurial environments. These efforts include teaching and curriculum development, student activities, and scholarly research. The interdisciplinary curriculum draws on faculty expertise in many areas. See http://www.anderson.ucla.edu/research/escl/.

Human Resources Round Table

The Human Resources Round Table (HARRT) is affiliated with the Anderson School and the UCLA Institute of Industrial Relations. The program's mission is to enhance the profession of human resource management by linking the academic and practitioner human resource management communities. See http://www.harrt.ucla.edu.

Information Systems Research Program

The Information Systems Research Program (ISRP) was established to recognize the importance of maintaining close ties between the activities of practicing professionals and the activities of academics in the information systems area, while at the same time raising money to support education and research activities in the information systems area. The senior managers and technical professionals who belong to the Information Systems Associates participate in a number of activities to facilitate professional interchange and networking, such as the Information Systems Executive Leadership annual award dinner and the annual Information Systems Associates Symposium. See http://www.anderson.ucla.edu/acad_unit/info_sys/research/overview.htm.

Leadership, Education, and Development Program

The Leadership, Education, and Development (LEAD) program sponsors four-week residential summer institutes at outstanding business schools, including the Anderson School, and recruits qualified African American, Hispanic, and Native American students between their junior and senior years of high school. LEAD introduces participants to the world of business, economics, finance, and management through a carefully tailored curriculum involving University faculty, guest lecturers from industry, and corporate field trips.

Office of Executive Education

Lifelong learning plays a critical role in the success of today's business leaders. The Anderson School's Office of Executive Education Programs offers more than 40 innovative open enrollment and customized programs that address complex and rapidly changing business issues. The Executive Program covers such diverse areas as strategic planning, organizational design, and competitive positioning. See http://www.uclaexeced.com.

Richard S. Ziman Center for Real Estate

The mission of the Richard S. Ziman Center for Real Estate is to undertake an aggressive program of research, education, and professional development; the objectives are to (1) advance the quality of real estate research to a level comparable with financial economics, (2) train highly skilled professionals who use advanced scientific tools for designing new products, managing risk, and raising returns to real estate investments, and (3) undertake activities that bridge the gap between real estate research and practice. See http://www.zimancenter.com.

Riordan Programs

The Riordan Programs were established by the Riordan Foundation to address the demand for trained managers who can provide vision and leadership in culturally diverse communities. The programs' success results from the collaborative efforts of Anderson School faculty, students, and alumni, and corporate leaders throughout the community. Together these individuals encourage underrepresented students to pursue higher education in management and to become future leaders in business and society. See http://www.anderson.ucla.edu/community/riordan/.
The School of the Arts and Architecture at UCLA plays a vital role in the cultural and artistic life of the campus and community. Courses and degree programs in six departments provide students with unparalleled opportunities to learn from and interact with faculty members who rank among the most innovative artists and architects of our time.

A balance of practice and theory, built on the academic foundation of the liberal arts, assures the understanding and appreciation of both the interdependence and integration of creativity, performance, and research. In educating the whole person, the school strives to empower and inspire the next generation of citizens to serve as cultural leaders of the twenty-first century.

Also under the School of the Arts and Architecture umbrella is an impressive array of public arts units, including the UCLA Performing Arts, one of the largest arts presenters in the nation, UCLA Hammer Museum which houses the Grunwald Center for the Graphic Arts, the UCLA Fowler Museum of Cultural History, and the renowned Murphy Sculpture Garden. These institutions offer extraordinary access to leading anthropological, historical, and contemporary visual arts exhibitions and collections, and presentations by the world’s most outstanding performing artists.

In addition to providing a rich and diverse environment on campus, the school offers students the opportunity 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.

**Departments and Programs**

The six departments of the school are integral to the rich and varied cultural life of the campus. The Department of Architecture and Urban Design provides 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 Department of Art learn to understand the broad panorama of the visual arts emphasizing experimentation. The Department of Design | Media Arts focuses on electronic and digital imagery in visual communication design. Students in the Department of Ethnomusicology study the performance and context of music-making from a global perspective, and the Department of Music offers concentrations in composition, music education, and performance. The Department of World Arts and Cultures offers an innovative curriculum focused on the interdisciplinary and intercultural investigation of performance, the arts, and dance, and on establishing connections between cultural theory and artistic practice.

School brochures are available from the Office of Recruitment and Outreach, 303 East Melnitz Building, UCLA, Box 951427, Los Angeles, CA 90095-1427. ☎ 310-825-9708

Students interested in obtaining instructional credentials for California elementary and secondary schools should consult the Department of Education, 1009 Moore Hall. ☎ 310-825-8328

**Degrees**

The school offers the following degrees:

- Architecture (M.Arch. I, M.Arch. II, M.A., Ph.D.)
- Art (B.A., M.A., M.F.A.)
- Culture and Performance (M.A., Ph.D.)
- Dance (M.F.A.)
- Design | Media Arts (B.A., M.A., M.F.A.)
- Ethnomusicology (B.A., M.A., C.Phil., Ph.D.)
- World Arts and Cultures (B.A.)

New students are not being admitted to the M.A. in Design | Media Arts at this time.

**Undergraduate Admission**

In addition to the University of California Undergraduate Application, departments in the School of the Arts and Architecture require auditions, portfolios, or evidence of creativity. Detailed information on departmental requirements is mailed to applicants.
cants on receipt of their application. The annual
deadline date for applications is November 30 for
admission in the following Fall Quarter.

UNDERGRADUATE DEGREE
REQUIREMENTS

School of the Arts and Architecture students must
meet three types of requirements for the Bachelor of
Arts degree:
1. University requirements
2. School requirements
3. Department requirements

UNIVERSITY REQUIREMENTS

The University of California has two requirements
that undergraduates must satisfy in order to gradu-
ate: (1) Subject A or English as a Second Language
and (2) American History and Institutions. See
Degree Requirements in the Undergraduate Study
section for details.

School of the Arts and Architecture students
enrolled in English as a Second Language 33A, 33B,
33C, 35 must take the courses for a letter grade.

SCHOOL REQUIREMENTS

The School of the Arts and Architecture has five
requirements that must be satisfied for the award of
the degree: unit, scholarship, academic residence,
general education, and upper division nonmajor.

Structure of a Degree

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<th>School Requirements</th>
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<td>- English Composition and Rhetoric</td>
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<td>- Critical Reading and Writing</td>
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<td>b. Foreign Language</td>
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<td>c. Computing/Mathematics/Statistics</td>
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<td>d. Science/Social Sciences/Humanities</td>
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<td>5. Upper Division Nonmajor Courses</td>
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<th>Department Requirements</th>
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<td>1. Preparation for the Major</td>
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Courses that do not satisfy the University, school, or
department requirements are referred to as electives
and are used to meet the minimum unit requirement
for graduation.

UNIT REQUIREMENT

Students must complete for credit, with a passing
grade, no less than 180 units and no more than 216
units, of which at least 64 units must be upper divi-
sion courses (numbered 100 through 199). Credit
for 199 courses is limited to 16 units, 8 of which
may be applied to the major. All 199 courses must be
taken for a letter grade.

SCHOLARSHIP REQUIREMENT

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

ACADEMIC RESIDENCE REQUIREMENT

Students are in residence while enrolled and attend-
ing classes at UCLA as a major in the School of the
Arts and Architecture. Of the last 45 units com-
pleted for the bachelor’s degree, 35 must be earned
in residence in the School of the Arts and Archite-
cture. No more than 18 of the 35 units may be com-
pleted in UCLA Summer Sessions.

Courses in UCLA Extension (either class or corre-
spondence) may not be applied toward any part of
the residence requirements.

GENERAL EDUCATION REQUIREMENTS

The general education (GE) requirements of the
school include (1) writing, (2) foreign language, (3)
computing/mathematics/statistics, and (4) science/
social sciences/humanities courses. See http://www.
registrar.ucla.edu/ge/artsarch.htm for the list of
approved courses.

Writing Requirement

To satisfy school writing requirements students must
complete both the English composition and rhetoric
and the critical reading and writing requirements.

English Composition and Rhetoric. English Com-
position 3 with a minimum grade of C must be
completed by the end of the third term at UCLA
and may not be taken on a Passed/Not Passed basis.
An Advanced Placement (AP) Test score of 4 also
meets this requirement.

Critical Reading and Writing. One course from
Ancient Near East 10W, Applied Linguistics and
Teaching English as a Second Language 101W,
Classics 40W, 41W, Comparative Literature 2AW,
2BW, 2CW, 2DW, 4AW, 4BW, 4CW, 4DW, East
Asian Languages and Cultures 60W, English 4HW,
4W, English Composition 30W, 100W, French
14W, German 55W, 60W, 62W, History 10BW,
99W, Honors Collegium 21W, 32W, 33W, 38W,
40W, 41W, 46W, 59W, 83W, Life Sciences 2W,
Music History 12W, Philosophy 22W, Russian
25W, 99BW, or Scandinavian 50W with a minimum grade of C must be completed by the end of the second year at UCLA and may not be taken on a Passed/Not Passed basis. A course taken to meet the critical reading and writing requirement may not also be applied toward a GE requirement.

Foreign Language Requirement
Students may meet the foreign language requirement by (1) scoring 3, 4, or 5 on the Advanced Placement (AP) foreign language test in French, German, or Spanish, or scoring 4 or 5 on the AP foreign language test in Latin, (2) presenting a UCLA foreign language proficiency examination score indicating competency through level three, or (3) completing one college-level foreign language course equivalent to level three or above at UCLA with a grade of Passed or C or better.

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.

Computing/Mathematics/Statistics Requirement
Students must complete one course in mathematics or statistics or an introductory course in computers selected from Anthropology M80, Computer Science 1, 2, Geography M40, Mathematics 1, 2, 3A, 3B, 3C, 31A, 31B, Political Science 6, Program in Computing 1, 10A, 10B, 10C, Sociology M18, Statistics 10, 11, M12, 13. An SAT I mathematics score of 600 or better or an SAT II Subject Test in Mathematics score of 550 or better also meets this requirement.

Science/Social Sciences/Humanities Requirement
To satisfy School of the Arts and Architecture science, social sciences, and humanities GE course requirements, students must complete (1) two courses from different departments in the sciences, (2) three courses with at least one in each group from the social sciences, and (3) three courses with at least one in three of the four groups from the humanities.

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 Student Services Office, School of the Arts and Architecture, 194 Kinross South, UCLA, 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 which 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 Arts and Architecture GE requirements.

Upper Division Nonmajor Requirement
In addition to the GE requirements, students are required to take a minimum of 12 units of upper division nonmajor courses.

Department Requirements
School of the Arts and Architecture departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) 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 require-
THE MAJOR

A major is composed of not less than 14 courses (56 units) including at least nine upper division courses (36 units).

Students must complete their major with a scholarship average of at least a 2.0 (C) in all courses in order to remain in the major. All courses 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 in the School of the Arts and Architecture may require a general final examination.

Individual Majors. Highly motivated students who believe that no single major accommodates their specific interests and goals may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and must explain the intent concerning the anticipated program of study and reasons why the academic goals cannot be achieved within an existing major. Proposals must be submitted no later than the end of the sophomore year. Transfer students must complete at least one term of residency at UCLA before proposing an individual major. Students interested in designing an individual major should consult the Director of Student Services, School of the Arts and Architecture, 194 Kinross South. ☎ 310-206-3564

Double Majors. Students may petition to be reviewed for a double major on an individual basis. Contact the Student Services Office for an outline of criteria required.

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 17 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 17 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a B average in the preceding term with all courses passed. Consult the Student Services Office no later than the end of the third 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. They 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 at UCLA Extension while enrolled at UCLA is not permitted.

CREDIT LIMITATIONS

The following credit limitations apply to all undergraduates enrolled in the school:

Advanced Placement Tests. Credit earned through the College Board Advanced Placement (AP) Tests may be applied toward the general education requirements. Portions of AP Test 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.

Graduate Courses. Undergraduate students who wish to take courses numbered in the 200 series for credit toward the degree must petition for advance approval of the department chair and the dean of the school and must meet the 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 departmental counselors. Prior to registration and enrollment in classes, new students are assigned a counselor in the major department. For counseling information, contact the Student Services Office, School of the Arts and Architecture, 194 Kinross South. ☎ 310-206-3564

HONORS

School of the Arts and Architecture undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

DEAN’S HONORS

To receive Dean’s Honors in the School of the Arts and Architecture, students must have at least 12 graded units per term with a grade-point average of 3.8 for less 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. The levels of honors are *summa cum laude*, *magna cum laude*, and *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. See the *Schedule of Classes* 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 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 194 Kinross South for details.

**Graduate Study**

The advanced degree programs offered in the School of the Arts and Architecture provide graduate students with unique research opportunities when combined with special resources, such as the Young Research Library, the special collections of the Arts and Music Libraries, and the University’s exhibition and performance halls.

Fellowships, grants, and assistantships are available through 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 can be found in *Program Requirements for UCLA Graduate Degrees* at http://www.gdnet.ucla.edu/publications.html.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

**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* at http://www.gdnet.ucla.edu/publications.html.

**School of Dentistry**

No-Hee Park, Dean

UCLA
53-038 Dentistry
Box 951762
Los Angeles, CA 90095-1762
(310) 206-6063
fax: (310) 794-7734
http://www.dent.ucla.edu

The UCLA School of Dentistry has a national and international reputation for its teaching, research activities, and public service, which prepare dental students for professional careers dedicated to patient treatment, 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, and dental auxiliary personnel in much the same way as they later will interact in a private or group practice.
School of Dentistry students may undertake programs designed to meet their special needs; 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, the Royal Children's Dental Center, and the Mobile Dental Clinic, the latter in conjunction with the University of Southern California. The graduate programs and resident specialty programs foster new lines of research which lead to better treatment options. An active continuing education program directed by UCLA faculty members provides a variety of hands-on courses for members of the dental profession and their auxiliaries.

DEGREES AND PROGRAMS

The school offers the following degrees:

Dental Surgery (D.D.S.)
Oral Biology (M.S., Ph.D.)

In addition, the school has a Professional Program for International Dentists (PPID) and a number of dental specialty residency programs. Articulated D.D.S., M.S., Ph.D., and specialty programs are also available. For information on the M.S. and Ph.D. programs in Oral Biology, for which admission to the School of Dentistry is not required, see Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

PREDENTAL CURRICULUM

For details on the three-year predental curriculum, see http://www.career.ucla.edu/gradschool/health/dentistry.asp.

D.D.S. DEGREE PROGRAM

The UCLA dental curriculum leading to the degree of Doctor of Dental Surgery (D.D.S.) 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 provide students with clinical competence and broad experience in all phases of clinical dentistry within the four years.

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 the 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.

For details on the D.D.S. program and a listing of the courses offered, see http://www.dent.ucla.edu or write to the Office of Student Affairs, School of Dentistry, A0-111 Dentistry, UCLA, Box 951762, Los Angeles, CA 90095-1762.

RESIDENT PROGRAMS

School of Dentistry opportunities for resident 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 four- or six-year oral and maxillofacial surgery residency training program; a three-year prosthodontics, periodontics, and combined orthodontic/pediatric dentistry program; two-year programs in the specialties of endodontics and orofacial pain and dysfunction; and a 27-month program in orthodontics and pediatric dentistry.

Information on the resident programs can be obtained by writing directly to Resident Programs, School of Dentistry, A0-111 Dentistry, UCLA, Box 951762, Los Angeles, CA 90095-1762.

SCHOOL OF LAW

Jonathan D. Varat, Dean

UCLA
1242 Law
Box 951476
Los Angeles, CA 90095-1476
(310) 825-4841
fax: (310) 206-6489
http://www.law.ucla.edu

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. Members of the faculty frequently receive awards for teaching excellence and are highly regarded Universitywide and nationally. They also are recognized worldwide for their contributions to scholarship and law reform in a broad spectrum of fascinating fields that dramatically affect our world—constitutional law, environmental law and policy, criminal law, corporate law, employment law, international law, and intellectual property, to name a few. The structure of our 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 humane 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 Corporate Law, Critical Race Studies, and Public Interest Law. Situated at a major gateway to the Pacific Rim, UCLA is a center of international programs; international and comparative law has become a dynamic, integral part 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 other related courses. 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, UCLA’s extensive educational programs afford law students myriad interdisciplinary opportunities both in the classroom and through independent research.

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. The school’s nationally recognized clinical program offers sophisticated courses that help students develop applied lawyering skills, focus on solving client problems, and see in their education at UCLA more of what ultimately will face them as lawyers and policymakers. An entire wing of the Law Building is designed especially for clinical teaching and student practice and facilitates work and study in the ever-expanding clinical curriculum, which includes courses in interviewing, counseling, negotiation, business transactions, criminal and civil trial advocacy, community-based lawyering, environmental law, and poverty law practice. The first-year lawyering skills course, taught by experienced lawyers who are full-time faculty members, is truly outstanding and features interviewing and counseling of clients and drafting of legal memoranda, contracts, and “advice letters,” thereby developing legal research capabilities and writing prowess.

Successful placement of UCLA law graduates reflects the school’s excellent national ranking. Over 400 law firm and agency interviewers from across the nation come to UCLA annually to hire our students. UCLA graduates (more than 12,000) work in coveted positions locally and around the world, not only serving in a wide variety of public and private law practices, but as judges, business executives, writers, journalists, law professors, and academic administrators.

**DEGREES**

The school offers the following degrees:
- Juris Doctor (J.D.)
- Doctor of Juridical Science (S.J.D.)
- Master of Laws (LL.M.)

**Concurrent Degree Programs**

The school offers eight concurrent degree programs:
- Law J.D./Afro-American Studies M.A.
- Law J.D./American Indian Studies M.A.
- Law J.D./Education M.Ed., M.A., Ed.D., or Ph.D.
- Law J.D./Management M.B.A.
- Law J.D./Public Policy M.P.P.
- Law J.D./Public Health M.P.H.
- Law J.D./Social Welfare M.S.W.
- Law J.D./Urban Planning M.A.

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.

**JURIS DOCTOR DEGREE**

**Admission**

Students beginning their professional work are admitted only for Fall Semester. They must have received a bachelor’s degree from a university or college of approved standing before beginning work in the school and are required to take the Law School Admission Test (LSAT).

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 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 scores. It also recognizes in its evaluation that other factors and attributes contribute greatly to a person’s ability to

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**The outstanding reputation of the UCLA School of Law is based on excellence in scholarship, a rigorous educational program, and the quality of a faculty that includes eminent authorities in all major fields of law.**

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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 of applicants representing 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.

UCLA 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.

Detailed information about the academic programs offered by the School of Law, course titles and descriptions, fees, and the semester-system calendar by which it operates are available in the Bulletin of the UCLA School of Law or from the School of Law website given at the beginning of this listing.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

Residence and Unit Requirements

Candidates for the degree of Juris Doctor must pursue resident law school study for six semesters and successfully complete 87 units. The residence requirements may be satisfied as follows: (1) six semesters in regular session in this school or (2) two semesters in regular session (or equivalent) in a school which is accredited by the American Bar Association, coupled with four semesters in regular session (or equivalent) in this school.

Every first-year student is required to take the full schedule of required courses; second- and third-year students are required to take a minimum of 12 hours and may not take more than 16 hours each semester. The second- and third-year curriculum is elective, except for a required course in professional responsibility. In addition to the courses in the regular law school curriculum, students may take two courses for credit in other disciplines within the University. Graduate students may enroll in upper division law courses on a limited basis. Law courses are not open to non-UCLA students. Auditing of 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, may be obtained from the Office of the Assistant Dean for Students. Standards for satisfactory performance and for graduation are prescribed by the faculty and are published separately. They may also be obtained from the above office.

Curriculum

The school offers courses of instruction within the school and supervised educational experiences outside it in an effort to enable its 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 an intensive study of legal reasoning in a series of fields which have historically dominated legal thought. Additionally, the first-year required course in lawyering skills provides students the opportunity to explore the relationship between legal analysis and lawyering tasks such as legal writing, oral advocacy, research, and client interviewing and counseling.

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 curriculum are elective, with the exception of the legal profession requirement which is a requisite for graduation.

Master of Laws Degree

The school offers a graduate law program leading to the Master of Laws (LL.M.) degree to outstanding international students interested in pursuing graduate studies. Law school graduates with outstanding records who may be interested in this program should contact Professor Joel Handler, LL.M. Program, School of Law, 1242 Law, UCLA, Box 951476, Los Angeles, CA 90095-1476, for further information.

Doctor of Juridical Science Degree

The Doctor of Juridical Science (S.J.D.) degree program is designed for those seeking to pursue careers as teachers and scholars of law. The highly selective program is open only to applicants who possess a distinguished prior academic record in law, show promise of outstanding scholarship, and demonstrate a high potential for completing a scholarly dissertation of required quality. Applicants must hold a J.D. degree or foreign equivalent and an LL.M. degree (or be enrolled in a program leading to an
The School of Law was a pioneer of clinical legal education, and the program continues on the cutting edge of methods for training lawyers. Clinical faculty members have written numerous influential texts and articles that are used by law schools nationwide.

**CORPORATE LAW SPECIALIZATION**

The specialization in Corporate Law offers upper-level law students a coherent program of focused coursework in an important practice area. Students who successfully complete the specialization receive an appropriate notation on their transcripts.

The specialization has several goals. A large part of practice consists of transactions—a term encompassing agreements as diverse as the negotiation of a lease, the financing of low-cost housing, and the mergers of billion-dollar companies. Lawyers structuring those transactions and those engaged in litigation about them need to understand both legal principles and economic dynamics. Yet students interested in such practices are sometimes uncertain how they may best prepare themselves for such careers. The specialization provides guidance for these students, offering suggested courses and sequences of courses that enable those interested in a career in business law—or another field where such knowledge would be useful—to plan orderly, logical schedules that build from the basic to the advanced.

In addition, students elect a transactional course that offers intensive hands-on exposure to a field of practice. The entire specialization consists of eight or nine upper division courses. Students enjoy preference for admission into all limited-enrollment required business courses.

**CRITICAL RACE STUDIES SPECIALIZATION**

Throughout American history, race has profoundly affected the lives of individuals, the growth of social institutions, the substance of culture, and the 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. The specialization in Critical Race Studies offers second- and third-year law students a coherent and rigorous program within which to meet that challenge.

The Critical Race Studies specialization 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 students' mastery of five areas: history (centering on the Constitution but focusing 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 techniques). There is also a writing requirement, which students may complete either working independently with a specialization faculty member or via an approved seminar. Beyond the course requirements, students have the opportunity to engage in a wide range of related extracurricular activities.

EXTERN PROGRAM

The school has one of the most extensive, best established, and most diversified student extern programs in the nation. Under supervision of experienced public interest and governmental lawyers and federal judges, students perform legal work in government offices, public interest law firms, nonprofit agencies, and the chambers of federal judges.

In the semester-long program, students develop legal skills in supervised settings and acquire perspectives about the lawyering process or the judicial decision-making process. They also participate in a faculty-led, law school-based seminar in which they reflect systematically in a classroom setting on their experiences in the placement. Students regularly report that the program is an excellent educational experience.

PUBLIC INTEREST LAW AND POLICY SPECIALIZATION

The School of Law has long attracted students interested in public interest and policy issues. The school has one of the strongest public interest law faculties in the country and sits next to the School of Public Policy and Social Research in a city that is a living laboratory for every conceivable social problem. Building on these strengths, the school instituted a specialization in Public Interest Law and Policy in 1997. Students take a special lawyering skills class, participate in a public interest workshop in their first year, and take required year-long seminars in their second and third years. Through the three-year specialization, which leads to the J.D. degree, students work closely with the small group of faculty members who designed the specialization.

In the specialization, “public interest” is broadly defined. The goal is to provide an innovative and intellectually ambitious curriculum that prepares graduates to engage in sophisticated representation of traditionally underrepresented clients and interests while utilizing a range of problem-solving tools. Students study not only substantive public interest problems such as housing, race relations, and the environment, but also the institutional and policy aspects of delivering legal services to groups with limited access to such services. Student research and advocacy training incorporates client representation, community outreach, field research, social science theory and methodology, policy analysis, and the best of traditional legal scholarship.

The specialization marks a distinct break with the way law schools have traditionally trained lawyers for public interest careers. Recognizing the need for coordinated and sequenced training and hoping to engage the most dedicated public interest-minded students, the specialization offers a challenging approach to legal education that helps aspiring lawyers refine their own career goals while training them for work in the public interest.

SCHOOL OF NURSING

Marie J. Cowan, Dean

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http://www.nursing.ucla.edu/son/

The 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 UCLA Medical Center, its affiliates, or in selected community sites. Education at the master’s level provides advanced practice options in primary care, acute care, and nursing administration.

The majority of graduate students acquire expertise as nurse practitioners, with several options for clinical preparation in primary or acute care. The doc-
The school of nursing became an agency member in 1952. The National League for Nursing (NLNAC) granted full accreditation to the programs since 1954. The master's clinical nurse specialist, nurse practitioner, and nurse-midwifery programs have Board of Registered Nursing approval. In 2001, the Commission on Collegiate Nursing Education granted accreditation to the baccalaureate and master's degree programs for a period of 10 years.

**DEGREES**

The school offers the following degrees:
- Bachelor of Science (B.S.)
- Master of Science in Nursing (M.S.N.)
- Doctor of Philosophy (Ph.D.)

**Concurrent Degree Program**

The school offers one concurrent degree program:
- Nursing M.S.N./Management M.B.A.

**PHILOSOPHY OF THE SCHOOL**

The UCLA 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.

Nursing encompasses clinical practice, education, research, consultation, leadership, management, and service to the profession and the 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 include health promotion and maintenance, intervention and treatment, rehabilitation and restoration, and palliation. At an advanced practice level, nursing involves comprehensive primary health care that encompasses the responsibility and accountability for continuity of care across the health/illness spectrum.

Nursing research is both applied and basic and 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 health care to all its clients regardless of their age, gender, sexual orientation, race or ethnicity, religion, culture, socioeconomic, or health status.

Persons 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 not only are relevant but essential to successful health care outcomes. As a result, persons have a right and a responsibility to participate collaboratively with the nurse and other health professionals in their care.

Successful nursing students are active learners who bring unique 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 which may include educative, administrative, and research arenas. 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.

SCHOOL OF PUBLIC HEALTH

Linda Rosenstock, Dean

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http://www.ph.ucla.edu/sao/

It is a great time to study public health. Federal investment in public health has increased, and a strong global economy has brought additional resources and attention to the field. Furthermore, public and media interest in public health topics have created many opportunities for the field and UCLA graduates.

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 boundaries of academic disciplines, 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 School of Public Health is among the top public health schools in the country. Offering superior public health training and real-world experience, the school’s classrooms and laboratories are under the same roof as the world-renowned UCLA hospital and its medical, dental, and nursing schools. In addition, the proximity of the University’s science facilities and schools of engineering, law, management, and public policy facilitate transdisciplinary collaboration.

School of Public Health students can look forward to working with acclaimed public health experts and innovators. Of the school’s 180 faculty members, six are members of the prestigious Institute of Medicine, three are past presidents of the American Public Health Association, and two are former presidents of the International Epidemiological Association.

The school’s 600 students are not only among the most talented and promising in the nation, but the most diverse of all schools of public health in the country. UCLA School of Public Health graduates can be found at the forefront of all major public health efforts.

The school is enriched by its Los Angeles locale, where diverse cultures, industries, environmental situations, and urban issues provide unparalleled opportunities for research, teaching, and service. Its location provides students and faculty with a unique opportunity to be involved with cutting-edge health care issues as many of the health system changes currently sweeping the country have origins in Southern California.

DEPARTMENTS

The School of Public Health 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 which 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 Services
deals with the organization, financing, delivery, quality, and distribution of health care services. The school also administers interdepartmental degree programs in environmental science and engineering and in molecular toxicology.

See the Curricula and Courses section for further information on each department.

**DEGREES AND PROGRAMS**

The school offers the following degrees:

- Biostatistics (M.S., Ph.D.)
- Environmental Health Sciences (M.S., Ph.D.)
- Environmental Science and Engineering (D.Env.)
- Epidemiology (M.S., Ph.D.)
- Health Services (M.S., Ph.D.)
- Molecular Toxicology (Ph.D.)
- Preventive Medicine and Public Health (M.S.)
- Public Health (M.P.H., M.S., Dr.P.H., Ph.D.)

The M.S. and Ph.D. degrees in Public Health are offered through the Department of Community Health Sciences. New students are not being admitted to the M.S. in Preventive Medicine and Public Health at this time.

**Articulated Degree Programs**

The school offers three articulated degree programs:

- Public Health M.P.H./African Studies M.A.
- Public Health M.P.H./Latin American Studies M.A.
- Public Health M.P.H./Medicine M.D.

**Concurrent Degree Programs**

The school offers four concurrent degree programs:

- Public Health M.P.H./Asian American Studies M.A.
- Public Health M.P.H./Islamic Studies M.A.
- Public Health M.P.H./Law J.D.
- Public Health M.P.H./Management M.B.A.

**PREVENTIVE MEDICINE RESIDENCY PROGRAM**

The School of Public Health offers an accredited residency in public health and general preventive medicine, a specialty recognized by the American board of Preventive Medicine. It is designed to prepare physicians for leadership roles in preventive medicine and public health practice, research, and teaching. Residents participating in the academic phase must enroll in one of the departments within the School of Public Health and fulfill the requirements for the M.P.H. degree. During the practicum phase, residents obtain practical experience in preventive medicine supervised by onsite preceptors and the residency program director. Application is made both to the department and the residency program simultaneously.

Qualified physicians interested in learning more about the program should contact the School of Public Health Student Services Office, or visit http://www.ph.ucla.edu/pmr/home.htm.

**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 average of B (3.0 on a 4.0 scale) or better is required—or its equivalent if the letter grade system is not used—for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Further requirements for international students are explained in the Graduate Study section. See http://www.gdnet.ucla.edu/gasaa/admissions/admisinfo.html.

Departments in the school set additional admission requirements. See http://www.ph.ucla.edu/crs/eforms/sao_admit.php for further information.

**DEGREE REQUIREMENTS**

Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

**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 is a list of interdisciplinary centers sponsored by or associated with the UCLA School of Public Health.
The UCLA/RAND Center for Adolescent Health Promotion conducts studies and develops programs to improve the health and well-being of adolescents, with special emphasis on projects that involve parents of adolescents. The center is a partnership of the School of Public Health, Department of Pediatrics, RAND (a nonpartisan, private, nonprofit research institute that conducts research to improve public policy), and local communities.

The center’s multidisciplinary faculty and staff represent the fields of public health, medicine, social and clinical psychology, sociology, economics, political science, anthropology, education, sampling, statistics, and survey design. It is innovative in its approach to community service, partnering with ethnically and economically diverse communities in Los Angeles County to identify opportunities for it to provide technical support to community groups for program implementation and assessment. In addition, the center has partnerships with the Los Angeles Unified School District, Los Angeles County Department of Health Services, and other local groups. See http://www.rand.org/health/ado.html.

The UCLA Center for Health Services Management was established in 1996 as UCLA’s response to the increasingly challenging environment for health care management in California. It is designed to bring together the best in university-based research and education with the best and most current in management practices in the California health care community, for the mutual benefit of both. It is the vehicle for improved training and education of managers and executives, both in the degree and certificate programs at the University as well as the management development programs within health care organizations themselves. See http://www.ph.ucla.edu/hs/hsmgt.html.

In the fall of 1999 the Healthcare Collaborative at UCLA was established under the auspices of the center. The collaborative brings together students, alumni, faculty, and staff of the School of Public Health, the Anderson Graduate School of Management, and the David Geffen School of Medicine with members of the Southern California health care community. See http://www.healthcollab.org.

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The Center for Healthier Children, Families, and Communities (CHCFC) was established at UCLA 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, well-being, and the chance to assume productive roles within families and communities.

Through a unique interdisciplinary partnership between UCLA departments, schools, and affiliated institutions, including the Schools of Public Health, Medicine, Nursing, Education, Law, and Public Policy and Social Research and the Department of Psychology, as well as providers, community agencies, and affiliated institutions, a critical mass of expertise has been assembled to conduct activities in five major areas: (1) child health and social services, (2) applied research, (3) training of health and social service providers, (4) public policy research and analysis, and (5) technical assistance and support to community providers, agencies, and policymakers. See http://healthychild.ucla.edu.

**CENTER FOR HUMAN NUTRITION**

Established in 1996, the Center for Human Nutrition is a joint endeavor of the School of Public Health and the David Geffen School of Medicine. Participating faculty members have their academic appointments in either or both schools. The center brings together faculty, postdoctoral research fellows, graduate students, and medical students to focus on the roles of nutrition and food in human health and disease and is closely affiliated with the UCLA Clinical Nutrition Research Unit, which focuses on nutrition and cancer prevention.

Programs include basic biological research; nutrition education for various constituencies, including medical, graduate, undergraduate, and postgraduate students; participation in multicenter clinical trials for primary and secondary disease prevention through dietary intervention; and public health and international nutrition. The public health and international aspects of the programs include focus on nutrition surveillance of populations, nutritional status and food supply in developing and transitional countries, and nutrition and food policy. ☎ 310-794-6601 or 825-3738

**CENTER FOR OCCUPATIONAL AND ENVIRONMENTAL HEALTH**

The California State Legislature mandated that the Center for Occupational and Environmental Health (COEH) be formed in 1977, when a group of chemical workers became sterile from exposure to the pesticide DBCP, a known carcinogen and reproductive toxin. With branches in the north and south of the state, COEH trains occupational and environmental health professionals and scientists, conducts research, and provides 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 COEH branch at UCLA is housed in the Center for the Health Sciences and involves the Schools of Public Health, Medicine, and Nursing. Specific COEH programs within the 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. See http://www.coeh.ucla.edu.

**CENTER FOR PUBLIC HEALTH AND DISASTERS**

The Center for Public Health and Disasters was established in 1997 to address the 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 has recently been named as one of 15 Academic Centers for Public Health Preparedness by the Centers for Disease Control. The goal of these national centers is to improve competencies of front-line workers in public health to respond to public health threats. See http://www.ph.ucla.edu/chhdr/.

**DIVISION OF CANCER PREVENTION AND CONTROL CENTER RESEARCH**

The Division of Cancer Prevention and Control Center Research (DCPCR) is a joint program of the School of Public Health and the David Geffen School of Medicine’s Jonsson Comprehensive Cancer Center. Since its inception in 1976, the DCPCR has been a recognized center of cancer prevention and control research at UCLA, throughout the Los Angeles community, and nationally. The DCPCR conducts rigorous peer-reviewed research in two major program areas—the Healthy and At-Risk Populations Program (http://www.ph.ucla.edu/hs/healthy.html) and the Patients and Survivors Program (http://www.ph.ucla.edu/hs/patients.html).

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. The program’s research portfolio includes cancer epidemiology, gene-environment interaction, tobacco control, nutrition and exercise, and breast, cervix, prostate, and colon cancer screenings.
SOUTHERN CALIFORNIA ENVIRONMENTAL HEALTH SCIENCES CENTER

The Southern California Environmental Health Sciences Center (SCEHSC) was established through funding from the National Institute of Environmental Health Sciences (NIEHS). Researchers and professionals from UCLA and the University of Southern California have collaborated to create an interdisciplinary approach to the study and advancement of research in environmental health. As one of the newest of 19 centers across the nation, the SCEHSC primarily focuses on using epidemiologic methods to study effects of the environment on human health, especially with regard to the multiethnic populations of California and the Pacific Rim. The SCEHSC is organized into an administrative core, five research cores, and four service cores, with the overall goal to understand how environmental factors affect health and how personal factors modify response. Research cores include exposure assessment, respiratory effects, childhood cancer, adult cancer, and statistical methods, while the service cores include analytical chemistry, molecular biology, biological sample processing, and biostatistics.

SOUTHERN CALIFORNIA INJURY PREVENTION RESEARCH CENTER

Injuries kill more people under the age of 45 than all other causes of death combined. The Southern California Injury Prevention Research Center (SCIPRC) is one of 10 centers in the U.S. that focus on the problem of intentional (homicide, suicide, abuse) and unintentional (motor vehicle crash, drowning, falls) injuries through three phases of injury control—prevention, acute care, and rehabilitation—addressed through its research, training, and community service components. The theme of SCIPRC is to research intentional and unintentional injuries among disadvantaged persons and other underserved populations. Highly focused, multidisciplinary community-based research projects are undertaken in collaboration with professionals from public health, medicine, the social sciences, law, and biomechanics affiliated with UCLA, the University of Southern California, Harbor-UCLA Medical Center, Sharp Memorial Hospital, Rancho Los Amigos Medical Center, California State University (Los Angeles), the Los Angeles County Department of Health Services, the Los Angeles County Department of the Coroner, the California State Department of Health Services, the California Office of Traffic Safety, Cal/OSHA, and the California State Coroners’ Association. See http://www.ph.ucla.edu/sciprc/.

SOUTHERN CALIFORNIA NIOSH EDUCATION AND RESEARCH CENTER

The Southern California NIOSH Education and Research Center is one of 16 multidisciplinary centers in the U.S. supported by the National Institute for Occupational Safety and Health for education and research in the field of occupational health. The center is administratively housed in the Department of Environmental Health Sciences and supports academic programs in occupational medicine at UCLA and UCI, occupational health nursing, and industrial hygiene at UCLA. For these programs the center provides student support (fees and stipends for U.S. citizens or permanent residents) and infrastructure support. The center supports approximately 40 graduate students in the field of occupational health. It also supports a continuing education and outreach program, hazardous substances training for hazardous waste workers and industrial hygiene students, and a Pilot Project Research Training Program for ERC trainees. The continuing education program is primarily for professionals in the occupational health field and covers many topics in industrial hygiene, occupational health nursing, occupational medicine, occupational safety, ergonomics, and environmental areas. See http://www.ph.ucla.edu/erc/.

SOUTHERN CALIFORNIA PARTICLE CENTER AND SUPERSITE

The Southern California Particle Center and Supersite (SCPCS) was established in 1999 through funding from the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) to study the nature and health effects of airborne particulate matter (PM). The SCPCS is one of five particulate research centers awarded grants as part of an EPA effort to learn more about the health problems caused by exposure to particle pollution. Based in the School of Public Health and the Institute of the Environment, the center includes faculty members from throughout UCLA, as well as researchers from the University of Southern California, University of California campuses at Davis, Riverside, and Irvine, and Rancho Los Amigos Medical Center. The major objective of the SCPCS is to identify and conduct the highest priority research for PM to ensure protection of the public health. The center seeks to better determine the sources of particulate pollution, probe the chemical nature of particles, and investigate the health effects of breathing particulates. The SCPCS has created a structure to ensure integration of research and to create a research dynamic where findings facilitate new research that
deepens understanding of the mechanisms of particle-related toxicity. See http://www.scpcs.ucla.edu.

SCHOOL OF PUBLIC POLICY AND SOCIAL RESEARCH

Barbara J. Nelson, Dean
UCLA
3250 Public Policy Building
Box 951656
Los Angeles, CA 90095-1656
(310) 206-7568
fax: (310) 206-5773
http://www.sppsr.ucla.edu

Established in 1994, the School of Public Policy and Social Research educates at the highest level of excellence the next generation of practitioners and academic researchers in the "problem-solving professions"—policy studies, social welfare, and urban planning. The school provides relevant life-long education in the form of executive education, career training, technical assistance, and public pedagogy. The school also produces outstanding basic and applied policy and practice research and provides balanced and timely policy advice to policymakers in the public, private, and nonprofit sectors.

DEPARTMENTS

The school combines three academic departments—Policy Studies, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and nongovernment service, conducts research on significant regional, national, and international issues with a strong interdisciplinary and cross-cultural focus, and acts as a convener and catalyst for public dialog, engaging people locally, nationally, and internationally.

DEGREES AND PROGRAMS

The school offers the following degrees, in addition to an undergraduate Public Policy minor:

- Public Policy (M.P.P.)
- Social Welfare (M.S.W., Ph.D.)
- Urban Planning (M.A., Ph.D.)

Concurrent Degree Programs

The school offers eight concurrent degree programs:

- Public Policy M.P.P./Law J.D.
- Public Policy M.P.P./Social Welfare M.S.W.
- Social Welfare M.S.W./Asian American Studies M.A.
- Social Welfare M.S.W./Law J.D.
- Urban Planning M.A./Architecture M.Arch. I.
- Urban Planning M.A./Latin American Studies M.A.
- Urban Planning M.A./Law J.D.
- Urban Planning M.A./Management M.B.A.

Obtain brochures about the school’s programs from the Office of Academic and Student Services, 3371 Public Policy Building.

The school also offers a wide array of undergraduate courses in policy studies, social welfare, and urban planning. Enrollment in these courses is open to all undergraduate students.

ADMISSION

In addition to requiring that applicants hold a bachelor's degree from an accredited U.S. institution or an equivalent degree or professional title from an international institution, each department in the school has limitations and additional requirements. Individuals interested in concurrent degrees must be admitted to both programs. Detailed information can be found in Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

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 at http://www.gdnet.ucla.edu/publications.html.
RESEARCH CENTERS

The school houses nine research centers where faculty from across the campus pursue issues of mutual interest. In addition to their focus on practical policy problems, the research centers also provide opportunities for student financial aid in the form of research assistant positions, grants, and fellowships.

CENTER FOR CIVIL SOCIETY

The Center for Civil Society (CCS) is the focal point for the school’s programs and activities in nonprofit leadership and management, community organizations and advocacy, international nongovernmental organizations, and philanthropy. The center coordinates teaching of nonprofit and civil society aspects, conducts research, convenes meetings and seminars, offers executive education, and contributes to a policy dialog about the current and future role of nonprofit organizations, philanthropy, and civil society. See http://www.sppsr.ucla.edu/ccs/.

CENTER FOR GLOBALIZATION AND POLICY RESEARCH

The Center for Globalization and Policy Research acts as a focal point in the School of Public Policy and Social Research and in the UCLA community at large for critical investigations of global policy issues. The center serves as a clearinghouse for both individual and joint research projects and hosts public lectures and occasional conferences on globalization and its effects. The center’s work focuses on five main areas of social inquiry and policy-making, including the organization and structure of economic systems; processes of migration and social mobility; systems of cultural expression and conflict; the natural and built environments; and structures of governance. See http://www.sppsr.ucla.edu/cgpr/.

CENTER FOR HEALTH POLICY RESEARCH

Jointly sponsored by the School of Public Policy and Social Research and the School of Public Health, the Center for Health Policy Research conducts research on the national, state, and local levels, provides testimony, and conducts seminars and forums for government leaders and policymakers both public and private. Research activities emphasize a community-and population-based perspective to improve health outcomes. Current research areas and programs touch on such issues as access to health services, managed care, health care reform, women’s health, disease prevention policy, cost issues, and the health policy-making process itself. See http://www.healthpolicy.ucla.edu.

CENTER FOR INTERNATIONAL SCIENCE, TECHNOLOGY, AND CULTURAL POLICY

The Center for International Science, Technology, and Cultural Policy facilitates interdisciplinary research on the influences of government policy on the development of the arts and sciences and their commercial and noncommercial expressions, including technology, the media, fashion/design, and other uses of the nation’s knowledge capital. The center’s mission is to improve the basis for policy decisions by conducting and supporting solid empirical research designed to examine alternative policy models, including the comparison of systems across countries as well as across substantive areas within the same country. Rigorous policy research on these topics requires discipline-based, but also interdisciplinary, research teams that are informed by social science theory. The center promotes dissemination of policy research to governments seeking to make more empirically informed policy decisions. See http://www.sppsr.ucla.edu/res_ctrs/cistcp.cfm.

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 us 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. See http://www.sppsr.ucla.edu/res_ctrs/cpra.cfm.

INSTITUTE OF TRANSPORTATION STUDIES

The UCLA Institute of Transportation Studies (ITS) was created in 1993 to conduct research and provide professional education on the social, economic, environmental, and cultural aspects of transportation policy. Research projects have included measuring the efficiency and effectiveness of transit performance, particularly regional rail and bus transit systems in the Los Angeles area; the development of statistically reliable methods for estimating average vehicle occupancy from sampling in the field; and the first major study comparing the transportation-related impacts of the 1994 Northridge earthquake to the damage inflicted by the 1989 Loma Prieta and 1995 Kobe earthquakes. See http://www.sppsr.ucla.edu/its/index.html.

NORTH AMERICAN INTEGRATION AND DEVELOPMENT CENTER

The North American Integration and Development Center was created to provide technical assistance to local communities affected by the North American Free Trade Agreement (NAFTA). The center conducts research and offers continuing education programs in cooperation with nongovernmental organizations in selected communities to support local economic development efforts and facilitate
their relationship with the North American Development Bank (NADBank). The center is developing a comprehensive online database with essential information for economic development planning and makes it available to the public online through custom-designed Internet sites. See http://naid.sppsr.ucla.edu.

RALPH AND GOLDY LEWIS CENTER FOR REGIONAL POLICY STUDIES
The Lewis Center for Regional Policy Studies was established in 1990 with a $5-million endowment from Ralph and Goldy Lewis to promote the multidisciplinary study, understanding, and solution of regional policy issues, with special reference to Southern California. Research projects include topics such as welfare reform, immigration, the environment, health insurance, labor and employment, and transportation. See http://lewis.sppsr.ucla.edu.

UCLA POLICY FORUM/ADVANCED POLICY INSTITUTE
The UCLA Policy Forum/Advanced Policy Institute (API) is an applied research and development center and one of the primary outreach arms of the School of Public Policy and Social Research. Established in 1995, API addresses a variety of strategic policy needs by furthering the professional development of those working in the public interest, supporting efforts to access and apply research, developing innovative information technology tools to deal with policy challenges, and building new and mutually beneficial relationships between the University, policymakers, and community leaders. API’s programs link academic research with the experience and practical knowledge of policy practitioners and community leaders, with focus on topics such as housing, community and economic development, health care, social services, and disability issues. To accomplish this mission, API offers training programs to develop community leadership and facilitate professional development, technical assistance to community-based organizations and government agencies, and strategic policy conferences that bring together individuals capable of influencing policy-making. See http://api.sppsr.ucla.edu.

SCHOOL OF THEATER, FILM, AND TELEVISION
Robert Rosen, Dean
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102 East Melnitz Building
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(310) 825-5761
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http://www.tft.ucla.edu

The School of Theater, Film, and Television consists of the Department of Theater and the Department of Film, Television, and Digital Media, 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 on a 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, multidiscipline 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 our perception of a complex, diverse, and ever-changing world. We believe—as artists and scholars—that we have 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 UCLA Performing Arts, Geffen Playhouse, and UCLA Film and Television Archive, the school provides the ideal setting for students to engage in the study and practice of art forms essential to a healthy and dynamic society.
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, the school’s 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 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 M.A. and Ph.D. programs engage students in the 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 350 undergraduate and 125 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. Resources include the four theaters of the Macgowan Hall complex, with the latest technologies needed for the creation, control, and integration of scenery, lighting, and sound. Specializations in the Master of Fine Arts program include acting, directing, playwriting, design, technology and production management, and the producers program.

The Department of Film, Television, and Digital Media includes both production and critical studies programs, with approximately 265 graduate and 60 undergraduate students. The 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 critical studies program offers M.A. and Ph.D. degrees for the advanced scholarly study of film and television. The department’s resources in Melnitz Hall include three sound stages, three television studios, extensive editing, scoring, and viewing facilities, a complete animation laboratory for both traditional and computer-generated animation, and a laboratory and research facility for digital media.

The M.A. and Ph.D. programs are supported by the collections of the University’s libraries 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. M.A. and Ph.D. faculty members and students also participate in various campus organized research units.

The school offers the following degrees:

Film and Television (B.A., M.A., M.F.A., C.Phil., Ph.D.)
Moving Image Archive Studies (M.A.)
Theater (B.A., M.A., M.F.A., C.Phil., Ph.D.)

In addition to the University of California Undergraduate Application, departments in the School of Theater, Film, and Television require applicants to submit additional supporting materials. Information on departmental requirements is mailed to applicants on receipt of their application. The annual deadline date for applications is November 30 for admission in the following Fall Quarter.

School of Theater, Film, and Television students must meet three types of requirements for the Bachelor of Arts degree:

1. University requirements
2. School requirements
3. Department requirements
UNIVERSITY REQUIREMENTS

The University of California has two requirements that undergraduates must satisfy in order to graduate: (1) Subject A or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

School of Theater, Film, and Television students enrolled in English as a Second Language 33A, 33B, 33C must take the courses for a letter grade.

SCHOOL REQUIREMENTS

The School of Theater, Film, and Television has four general requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, and general education.

UNIT REQUIREMENT

Students must complete for credit, with a passing grade, no less than 180 units and no more than 208 units, of which at least 64 units must be upper division courses (numbered 100 through 199). No more than 16 units of CED courses and 8 units of freshman seminars or 300-level courses may be applied toward the degree. Credit for 199 courses is limited to 16 units, 8 of which may be applied to the major. All 199 courses must be taken for a letter grade.

SCHOLARSHIP REQUIREMENT

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

ACADEMIC RESIDENCE REQUIREMENT

Students are in residence while enrolled and attending classes at UCLA as a 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 in the School of Theater, Film, and Television. No more than 18 of the 35 units may be completed in UCLA Summer Sessions.

Courses in UCLA Extension (either class or correspondence) may not be applied toward any part of the residence requirements.

GENERAL EDUCATION REQUIREMENTS

The general education (GE) requirements of the school include (1) writing, (2) foreign language, (3) literature, and (4) art and philosophy/social sciences/science courses. See http://www.registrar.ucla.edu/GE/tfandtv.htm for the list of approved courses.

Writing Requirement

To satisfy school writing requirements students must complete both the English composition and rhetoric and the critical reading and writing requirements.

English Composition and Rhetoric. English Composition 3, 3H, or English as a Second Language 36 with a minimum grade of C must be completed by the end of the third term at UCLA and may not be taken on a Passed/Not Passed basis. An Advanced Placement (AP) Test score of 4 also meets this requirement.

Critical Reading and Writing. One course from the College of Letters and Science Writing II course list (see http://www.registrar.ucla.edu/soc/writing.htm) with a minimum grade of C should be completed by the end of the second year at UCLA and may not be taken on a Passed/Not Passed basis.

Foreign Language Requirement

Students may meet the foreign language requirement by (1) scoring 3, 4, or 5 on the Advanced Placement (AP) foreign language test in French, German, or Spanish, (2) presenting a UCLA foreign language proficiency examination score indicating competency through level three, or (3) completing one college-level foreign language course equivalent to level three or above at UCLA with an average grade of C or better.

International students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.
Literature Requirement
Three courses (12 units) in literature are required, at least one of which must be upper division. Any literature course taken in the original language can fulfill this requirement. College of Letters and Science Writing II courses may not be applied toward the critical reading and writing requirement if taken to meet this requirement.

Art and Philosophy/Social Sciences/Science Requirement
To satisfy School of Theater, Film, and Television art and philosophy, social sciences, and science GE course requirements, students must complete (1) five courses with no more than two courses from any single group in art and philosophy, (2) three courses with no more than two courses from any single group in social sciences, and (3) one course in physical sciences and one course in biological sciences.

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 Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to Director of Student Services, School of Theater, Film, and Television, 103 East Melnitz Building, UCLA, 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 which 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 Theater, Film, and Television GE requirements.

Department Requirements
School of Theater, Film, and Television departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) 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 section of this catalog.

The Major
A major is composed of not less than 14 courses (56 units) including at least nine upper division courses (36 units). The Theater major includes both lower and upper division courses. Those listed under Preparation for the Major (lower division) must be completed before upper division major work is undertaken. The Film and Television major requires upper division work only.

Students must complete their major with a scholarship average of at least a 2.0 (C) in all courses in order to remain in the major. All courses 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 in the School of Theater, Film, and Television may require a general final examination.

Individual Majors
Highly motivated students who believe that no single major accommodates their specific interests and goals may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and must explain the intent concerning the anticipated program of study and reasons why the academic goals cannot be achieved within an existing major. Proposals must be submitted no later than the end of the sophomore year. Transfer students must complete at least one term of residency at UCLA before proposing an individual
major. Students interested in designing an individual major should consult the Student Services Office, School of Theater, Film, and Television, 103 East Melnitz Building. ☎ 310-206-8441

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 student Study List must include from 12 to 17 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 17 units (up to 20 units maximum) if they have an overall grade-point average of 3.0 (B) or better and have attained at least a B average in the preceding term with all courses passed. The petitions must be filed and approved by the Student Services Office no later than the end of the third week of instruction.

If students have not filed their Study List by the end of the second week of classes, they must obtain the consent of the dean of the school to continue for that term.

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. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence.

CONCURRENT ENROLLMENT

Enrollment at another 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 undergraduates enrolled in the school:

Advanced Placement Tests. Credit earned through the College Board Advanced Placement (AP) Tests may not be applied toward the general education requirements.

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.

Graduate Courses. Undergraduate students who wish to take courses numbered in the 200 series for credit toward the degree must petition for advance approval of the department chair and the dean of the school and must meet the specific qualifications. Courses numbered in the 400 and 500 series may not be applied toward the degree.

COUNSELING SERVICES

The School of Theater, Film, and Television 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 further counseling information, contact the Student Services Office, School of Theater, Film, and Television, 103 East Melnitz Building. ☎ 310-206-8441

HONORS

School of Theater, Film, and Television undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

DEAN’S HONORS

To receive Dean’s Honors in the School of Theater, Film, and Television, students must have at least 12 graded units per term with a grade-point average of 3.8 for less 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. The levels of honors and the requirements for each level are cum laude, an overall average of 3.786; magna cum laude, 3.877; summa cum laude, 3.919. See the Schedule of Classes 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, the requirements in preparation for the major, and eligibility to participate in the school 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 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 103 East Melnitz Building for details.

**GRADUATE STUDY**

The advanced degree programs offered in the School of Theater, Film, and Television provide graduate students with unique research opportunities when combined with special resources, such as the Young Research Library, UCLA Film and Television Archive, Geffen Playhouse, special collections of the Arts Library, and the University’s exhibition and performance halls.

The producers program is an M.F.A. management program in the Departments of Theater and Film, Television, and Digital Media, with options in either theater or film and television.

A program in teaching is offered by the Graduate School of Education and Information Studies in each of the areas.

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* at http://www.gdnet.ucla.edu/publications.html.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

**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* at http://www.gdnet.ucla.edu/publications.html.
Curricula and Courses

Course Listings

In the following section, curricula and courses are listed alphabetically with the College or school administering the program identified in the program heading. 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. For up-to-date information, see the Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

For a complete outline of graduate degree requirements, see Program Requirements for UCLA Graduate Degrees available on the Graduate Division website at http://www.gdnet.ucla.edu/gasaa/library/pgmrqintro.htm.

Undergraduate Courses

Undergraduate courses are classified as lower division and upper division. Lower division courses (numbered 1-99) are often surveys offering preliminary introductions 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 indicated in departmental 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.

Lower division/first-year seminars (numbered 88) are departmentally sponsored courses designed to provide freshmen and sophomores the opportunity to participate in small classroom settings to enhance writing, verbal, and analytical skills. Many carry general education credit.

Variable topics courses (numbered 97 and 197) are offered at both the lower (97) and upper (197) division levels; topics within a defined subject area vary with the instructor and individual offerings. These topics have a fixed and permanent place in the regular curriculum.

Professional schools seminars (numbered 98) are designed by the faculty of the professional schools specifically for freshmen and sophomores. Outside the professional schools, 98 courses are often offered as the lower division equivalent of 198 courses, defined below. Only the 98 courses offered permanently are listed in the catalog; those that are temporary in nature, vary in content, and are offered irregu-
African Studies

Interdepartmental Program
College of Letters and Science

UCLA
10244 Bunche Hall
Box 951310
Los Angeles, CA 90095-1310
(310) 825-3866, 825-2944
fax: (310) 206-2250
e-mail: jscasc@international.ucla.edu
http://www.international.ucla.edu/jscasc/

Russell G. Schuh, Ph.D., Chair

Faculty Advisory Committee
Edward A. Alpers, Ph.D.
Donald J. Cosentino, Ph.D.
Jacqueline C. Djedje, Ph.D.
Ghislaine E. Lydon, Ph.D.
Charlotte G. Neumann, M.D.
Allen F. Roberts, Ph.D.
Russell G. Schuh, Ph.D., Chair
Dominic R. Thomas, Ph.D.
Hartmut S. Walter, Ph.D.

Affiliated Faculty
Professors
Richard L. Abel, LL.B., Ph.D. (Law)
Edward A. Alpers, Ph.D. (History)
Judith A. Carney, Ph.D. (Geography)
Donald J. Cosentino, Ph.D. (World Arts and Cultures)
Paul M. Davis, Ph.D. (Earth and Space Sciences)
Jacqueline C. Djedje, Ph.D. (Ethnomusicology)
Robert B. Edgerton, Ph.D., in Residence (Anthropology, Psychiatry and Biobehavioral Sciences)
Christopher Ehet, Ph.D. (History)
Teshome H. Gabriel, Ph.D. (Film, Television, and Digital Media)
Osman M. Galal, M.D., Ph.D. (Community Health Sciences)
Sondra Hale, Ph.D. (Anthropology, Women’s Studies)
Gail E. Kennedy, Ph.D. ( Anthropology)
Zoe S. Strother, Ph.D. (Art History)
Dominc R. Thomas, Ph.D. (French and Francophone Studies)
Duncan Thomas, Ph.D. (Economics)

Assistant Professors
Ghislaine E. Lydon, Ph.D., in Residence (History)
Edith S. Mukudi, Ph.D. (Education)
Steven D. Nelson, Ph.D. (Art History)
Daniel N. Posner, Ph.D. (Political Science)
Mark G. Sawyer, Ph.D. (Political Science)

Lecturer
Zulungi Sosibo (Linguistics)

Adjunct Assistant Professor
Joanne Leslie, Ph.D. (Community Health Sciences)

Visiting Associate Professor
Kereopatse W. Kgositsele, Ph.D. (English)

Scope and Objectives
The basic objective of the African Studies Program is an intellectual one — to provide interested students with the opportunity to engage in intensive study and research on Africa on an interdisciplinary basis. The program offers high quality African area courses in a wide range of fields, including the social sciences, humanities, and professional fields. The Master of Arts is not a professional degree, but students are encouraged to enroll in courses in several professional schools on campus. An articulated degree program is also offered. Academic flexibility draws many students to the program. Because there are more than 30 active faculty members on campus with African interest and experience in many disciplines, students have multiple options to design individualized programs.

According to a recent survey, 45 percent of the program’s graduates are continuing study at the postgraduate level, 25 percent are employed in higher education, and 30 percent work with international or foreign organizations in 20 countries.

The program also offers the undergraduate African Studies minor that is designed primarily for students who (1) want to learn more about Africa, (2) plan to live and work in Africa or who are interested in government and public service careers involving African affairs, and/or (3) plan to pursue graduate work related to Africa and international studies.

Undergraduate Study

African Studies Minor

The African Studies minor can be taken jointly only with work toward a bachelor’s degree, normally in combination with one of the following fields: Afro-American studies, anthropology, art history, comparative literature, English, ethnomusicology, film and television, French, geography, Germanic languages, history, linguistics, Near Eastern languages and cultures, political science, theater, or world arts and cultures. The faculty adviser certifies completion of the program.

To enter the minor, students must have an overall grade-point average of 2.0 or better and have completed 45 units and a three-term sequence of an African language prior to or concurrent with coursework in the minor. Languages may include Hausa, Swahili, Wolof, Zulu, and Afrikaans or, by petition to the minor counselor, another African language. Students must file a petition and meet with the student affairs counselor, African Studies Program, 10375 Bunche Hall, (310) 206-2806.

Required Lower Division Courses (8 to 9 units): History 10A, 10B (or 10BH or 10BW).

Required Upper Division Courses (20 to 25 units): Three courses selected from a list of designated core courses that offer exclusively African content and two courses from either the core list and/or an expanded list that includes courses with African content of at least 50 percent (consult the faculty adviser for recommended African-related courses). Students may petition to apply other topical courses when taught with an African content of 50 percent or more. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in any other department or program.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

For more information, contact the Student Affairs Counselor, African Studies Center, 10375 Bunche Hall (310-206-2806) or Professor Russell G. Schuh, Linguistics, 3125 Campbell Hall (310-720-2663, 825-0634).

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) degree in African Studies. An articulated degree program (African Studies M.A./Public Health M.P.H.) is also offered.

African Studies

Graduate Courses

M229B. Africana Bibliography and Research Methods. (4) Same as Information Studies M229B. Discussion, four hours. Problems and techniques of research methodologies related to Africana studies. Emphasis on relevant basic and specialized reference materials, using full range of available information resources, including library collections of books, serials, and computerized databases. S/U or letter grading.

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

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate Africana 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 M.A. Comprehensive Examination. (4) Tutorial, to be arranged. Limited to graduate Africana 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 M.A. Thesis. (4) Tutorial, to be arranged. Limited to graduate Africana studies students. Normally taken only during term in which student intends to complete M.A. thesis. May not be applied toward minimum graduate course requirement. S/U grading.

Course List

African Studies
All courses are not offered every academic year. Students should verify courses with the respective departments.

Courses with asterisks are special courses which may be applied toward the M.A. degree requirements with prior approval of the graduate adviser. These courses either do not exclusively focus on Africa or focus on Africa only in certain years.

African Languages (Linguistics)
1A-1B-1C. Elementary Swahili
2A-2B-2C. Intermediate Swahili
7A-7B-7C. Elementary Zulu
8A-8B-8C. Intermediate Zulu
11A-11B-11C. Elementary Yoruba
12A-12B-12C. Intermediate Yoruba
15. Intensive Elementary Swahili
31A-31B-31C. Elementary Bambara
32A-32B-32C. Intermediate Bambara
41A-41B-41C. Elementary Hausa
42A-42B-42C. Intermediate Hausa
61A-61B-61C. Elementary Wolof
62A-62B-62C. Intermediate Wolof
97. Elementary and Intermediate Studies in African Languages
103A-103B-103C. Advanced Swahili
109A-109B-109C. Advanced Zulu
123A-123B-123C. Advanced Yoruba
143A-143B-143C. Advanced Hausa
M190. Survey of African Languages
199. Special Studies in African Languages
202A-202B-202C. Comparative Bantu

Africans (Germanic Languages)
40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Preapartheid to Postapartheid Era, in English Translation
105A. Elementary Afrikaans
105B. Intermediate Afrikaans
135. Introduction to Afrikaans Literature
199. Special Studies in Afrikaans

Afro-American Studies
+M102. Culture, Media, and Los Angeles Anthropology
+112. Old Stone Age Archaeology
+M115A-M115B. Historical Archaeology
+121A. Primate Fossil Record
+121B. Australopithecines
+121C. Evolution of Genus Homo
+135P. Aesthetic Systems
+150. Study of Social Systems
+M154P Gender Systems: North American
+M154Q. Gender Systems: Global
+156. Comparative Religion
+158. Hunting and Gathering Societies
+161. Development Anthropology
+M168. Culture, Illness, and Healing
171. Sub-Saharan Africa
+212P. Selected Topics in Hunter/Gatherer Archaeology
+230Q. Theories of Culture
+250. Selected Topics in Social Anthropology
+253P. Comparative Systems of Social Inequality
+254. Kinship
+255. Comparative Political Institutions
271. Contemporary Problems in Africa

Applied Linguistics and Teaching English as a Second Language
C112. Reading for Second/Language Education
Art History
+55A. Introduction to Arts of Africa
+101A. Egyptian Art and Archaeology
+101B. Egyptian Art and Archaeology of the Middle and New Kingdoms
118C. Arts of Sub-Saharan Africa
+201. Topics in Historiography of Art History
+C203A-C203B. Museum Studies
219C. African Art
+220. Oceanic, Pre-Columbian, African, and Native North American Art

Berber (Near Eastern Languages)
+101A-101B-101C. Elementary Berber
+102A-102B-102C. Advanced Berber
+130. The Berbers
+199. Special Studies in Berber Languages

Community Health Sciences
+200. Global Health Problems
+231. Maternal and Child Nutrition
+233. Hunger and Food Insecurity as Public Health Issues
+246. Women’s Roles and Family Health
+M251. Human Resources and Economic Development
+280. International Health Education: Training and Development
+M294. Social and Behavioral Factors of HIV/AIDS: Global Perspective
+430B. Advanced Issues in International Health
+434A. Maternal and Child Health in Developing Areas
+434B. Recent Developments in Maternal and Child Health in Disadvantaged Countries
+441. Advanced Program Planning and Evaluation in International Health
+443. Assessment of Family Nutrition
+445. Food and Nutrition Planning: Policies and Programs in World Context
+446. Nutrition Education and Training: Third World Considerations
+448. Nutrition Policies and Programs: Domestic and International Perspectives

Economics
+110. Economic Problems of Underdeveloped Countries
+111. Theories of Economic Growth and Development
+112. Policies for Economic Development
+190. International Economics
+191. International Trade Theory
+192. International Finance
+281A. International Trade Theory
+281B. International Finance
+281C. International Economics
+282A-282Z. Topics in International Economics
+286A. Economic Development
+286B. Cost-Benefit Analysis of Development Projects
+287A-287Z. Topics in Development Economics

Education
+C203. Educational Anthropology
+204B. Introduction to Comparative Education
+204C. Education and National Development
+204D. Minority Education in Cross-Cultural Perspective
+204E. International Efforts in Education
+238. Cross-National Analysis of Higher Education
+252B. Seminar: Education and Social Change
+253A. Seminar: Current Problems in Comparative Education
+253B. Seminar: African Education
+253F. Seminar: Education in Revolutionary Societies

English
+114. World Literatures in English

Epidemiology
+290. Seminar: Epidemiology — Infectious and Tropical Disease
+415. Epidemiology for Developing Countries
+M418. Rapid Epidemiologic Surveys in Developing Countries

Ethnomusicalogy
20B. Musical Cultures of the World: Near East and Africa
91E. Music and Dance of Ghana
M110A-M110B. African American Musical Heritage
C136A-C136B. Music of Africa
+201. History of Ethnomusicalogy
237. Seminar: African Music
+290. Seminar: Ethnomusicalogy

Film and Television (Film, Television, and Digital Media)
106C. History of African, Asian, and Latin American Film
+108. History of Documentary Film
+112. Film and Social Change
+218. Seminar: Culture, Media, and Society
+219. Seminar: Film and Society
+221. Seminar: Film Authors
276. Seminar: Non-Western Films

French (Francophone Studies)
121A. Contemporary Francophone Literature: Francophone African Literature
257A-257B. Studies in French-African Literature

Geography
+121. Conservation of Resources: Underdeveloped World
122. Wildlife Conservation in Eastern and Southern Africa
AFRO-AMERICAN STUDIES

Interdepartmental Program
College of Letters and Science

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Darnell M. Hunt, Ph.D., Interim Chair

Faculty Advisory Committee

Walter R. Allen, Ph.D.
Devon Carbado, J.D.
Teshome H. Gabriel, Ph.D.
Cheryl I. Harris, J.D.
Robert A. Hill, M.Sc.
Darnell M. Hunt, Ph.D., Chair
Edmund Keller, Ph.D.
Cheryl L. Keyes, Ph.D.
Maureen E. Mahon, Ph.D.
Harriette R. Mullen, Ph.D.
E. Victor Wolfenstein, Ph.D.

Affiliate Faculty

Professors

Walter R. Allen, Ph.D. (Sociology)
Albert I. Boime, Ph.D. (Art History, French and Francophone Studies)
Kenneth Burrell, B.A. (Ethnomusicology)
Devon Carbado, J.D. (Law)
Kimberle W. Crenshaw, J.D., LL.M. (Law)
Jacqueline C. DeJode, Ph.D. (Ethnomusicology)
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Sandra Graham, Ph.D. (Education)
Franklin D. Gilliam, Jr., Ph.D. (Policy Studies, Political Science)
Juan Gómez-Quinonez, Ph.D. (History)
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Claudia Mitchell-Kernan, Ph.D. (Anthropology, Psychiatry and Biobehavioral Sciences)
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Hector F. Myers, Ph.D. (Psychology)
Jenny A. Sharpe, Ph.D. (Comparative Literature, English)
Brenda Stevenson, Ph.D. (History)
Romeria Tidwell, Ph.D. (Education)
M. Belinda Tucker, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
E. Victor Wolfenstein, Ph.D. (Political Science)
Gail E. Wyatt, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)

Associate Professors

Alfreda P. Iglehart, Ph.D. (Social Welfare)
Cheryl L. Keyes, Ph.D. (Ethnomusicology)
Arthur L. Little, Ph.D. (English)
Marcyliena H. Morgan, Ph.D. (Anthropology)
Harriette R. Mullen, Ph.D. (English)
Michael A. Stoll, Ph.D. (Policy Studies)
Richard A. Yarbrough, Ph.D. (English)

Assistant Professors

Scot D. Brown, Ph.D. (History)
Tyronne C. Howard, Ph.D. (Education)
Maureen E. Mahon, Ph.D. (Anthropology)
Steven D. Nelson, Ph.D. (Art History)
Jennifer E. Obidah, Ph.D. (Education)

Mark Q. Sawyer, Ph.D. (Political Science)
Caroline A. Streeter, Ph.D. (English)

Senior Lecturer

Paul Von Blum, J.D. (Communication Studies)

Lecturers

Negussay Ayele, Ph.D.
James Cones, Ph.D.
Yasamur Flores-Peña, Ph.D.
Kendall Radcliffe, Ph.D.
Jervey Tervalon, M.F.A.

Visiting Associate Professor

Sidney Lemelle, Ph.D.

Scope and Objectives

The Afro-American Studies Interdepartmental Program was designed to fill a void that existed at UCLA in terms of scholarly and curricular material relevant to the African American experience.

The program offers a Bachelor of Arts degree, an undergraduate Afro-American Studies minor, and a Master of Arts degree. A major or minor in this field provides a broadening of cultural experiences and perspectives. Careerwise, all students profit from Afro-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 Afro-American Studies curriculum is to provide students with 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 provides 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 Africa. The curriculum also provides 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.

Undergraduate Study

Afro-American Studies B.A.

The Afro-American Studies B.A. program is periodically revised; check with the program office for changes and updates.

Preparation for the Major

Required: History 10A and the courses listed in one of the following concentrations, plus three courses from at least two additional concentrations (requires for the courses listed must be completed before enrolling in a given course; this is especially important for the quantitative courses in economics and psy-
chology); anthropology — Anthropology 7, 8, 9, 12; economics — Economics 1, 2, M40, Mathematics 3A, 31E (or 3A and 3B, or 31A and 31B); English — English Composition 3, English 4W, 10A, 10B, 10C (all must be taken in sequence); history — History 1A, 1B, 1C, 10B, 13A, 13B, 13C, and 99 or 100; philosophy — Philosophy 4, 21, 22, 31; political science — Economics 1, Political Science 6, 20, 40; sociology 1; psychology — Anthropology 7, Mathematics 2, Physics 10 (or 1A or 6A), Psychology 100A, 100B, one year of high school chemistry (or Chemistry and Biochemistry 2 or 20A); sociology — Afro-American Studies M5 or Anthropology 34, Anthropology 9, Mathematics 2, Sociology 1, M18. Students are strongly urged to complete the required lower division courses within the first two years of the major.

Transfer Students
To be admitted as Afro-American Studies majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one civilization of Africa course and introductory courses as possible prior to admission to UCLA. Transfer credit for 16 units applied toward the minor must be applied toward major or minor requirements in addition to units requirements must be in addition to units maximum imposed by the College.

Required Lower Division Courses (8 units): Afro-American Studies M5 and 6, with grades of C or better.


Honors Option
Afro-American Studies majors with grade-point averages of 3.5 or better are eligible for the honors option which requires the completion of a senior thesis under the guidance of an Afro-American Studies faculty member. For more information, contact the student affairs officer of the Afro-American Studies Program.

Double Major Option
Some students elect to complete the requirements of both the Afro-American Studies major and one other major. Students interested in this option must maintain good academic standing and complete both majors within the unit maximum imposed by the College. Some courses used to satisfy the requirements for the principal major may also be used to satisfy the requirements for the secondary major, but no more than five courses may be common to both majors. Because of the complexity of the double major, students are encouraged to plan their curriculum early and to do so in consultation with the College counselors and the Afro-American Studies Program student affairs officer.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Graduate Degrees

The Afro-American Studies Program offers the Master of Arts (M.A.) degree in Afro-American Studies. A concurrent degree program (Afro-American Studies M.A./Law J.D.) is also offered.

Afro-American Studies

Lower Division Courses

M5. Social Organization of Black Communities. 
(Same as Sociology M5.) Lecture, four hours; discussion, one hour. Overview of major intellectual trends that have shaped ways in which African American thinkers have interpreted experiences of blacks in the U.S., drawing from such fields as history, philosophy, and literature. Letter grading.

(Same as Sociology M5.) Lecture, four hours; discussion, three hours; discussion, one hour. Overview of major intellectual trends that have shaped ways in which African American thinkers have interpreted experiences of blacks in the U.S., drawing from such fields as history, philosophy, and literature. Letter grading.

Upper Division Courses

100B. Psychology from an Afro-American Perspective. 
(Same as Sociology M104.) Lecture, three hours. Survey of psychological literature relevant to Afrocenmics, with emphasis on contributions of Afro-American psychologists. Topics include history of psychology, testing and intelligence, the family, personality and motivation, racism and race relations, education, community psychology, and future of Afro-American psychology. P/NP or letter grading.

100C. Creative Writing Workshop: Poetry. 
(Same as English M104.) Lecture, three hours. Weekly exercises in poetry writing and criticism. Study of techniques. Classroom discussion based on work produced by students. P/NP or letter grading.

C101. Special Topics in Afro-American Studies. 
(Same as Theatre CM112.) Seminar, four hours. Variable topics. May be repeated for credit. Concurrently scheduled with course C201. Letter grading.

M102. Culture, Media, and Los Angeles. 
(Same as Asian American Studies M102H and Honors College M102L.) 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.

M103A. African American Theater History: Slavery to Mid-1800s. 
(Same as Theatre 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 the mid-1800s. Letter grading.

M103B. African American Theater History: Minstrel Stage to Rise of the American Musical. 
(Same as Theatre 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 the minstrel stage to the rise of the American musical. Letter grading.

M103E. African American Theater History: The Depression to the Present. 
(Same as Theatre M103E.) 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 the Depression to the present. Letter grading.

M104A. Early Afro-American Literature. 
(Same as English M104A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of black American literature from the 19th century through World War I, including oral and written forms (folktales, spirituals, sermons; fiction, poetry, essays) by authors such as Phillis Wheatley, David Walker, Frances Harper, Frederick Douglass, Harriet Jacobs, Paul Laurence Dunbar, Charles W. Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. African American Literature from the Harlem Renaissance to the 1960s. 
(Same as English M104B.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century black American literature from New Negro Movement of post-World War I period to the 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Sterling Brown, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, and Ralph Ellison. P/NP or letter grading.

M104C. Afro-American Literature since the 1960s. 
(Same as English M104C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of diverse forms of Afro-American literary expression produced from rise of Black Arts Movement of the 1960s to the present by present writers as Amiri Baraka, Nikki Giovanni, Alice Walker, Etheridge Knight, Toni Morrison, Martin Luther King, Jr., Paule Marshall, Ernest Gaines, Ismael Reed, and Audre Lorde. P/NP or letter grading.

(Same as Ethnomusicology M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and allied forms, 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.

(Same as Ethnomusicology M109 and Women's Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from the 1880s to the present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

(Same as Ethnomusicology M110A-M110B.) Lecture, four hours; screening, two hours. Study of African music and its impact on the Americas; survey of development of various African American musical genres from slave era to the present, including traditions in the West Indies and Central and South America. P/NP or letter grading.

CM112A. African American Music in California. 
(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 CM121A. P/NP or letter grading.

CM112D. African American Art. 
(Same as Art History CM112D.) Lecture, three hours. Delineated inquiry into work of 20th-century African American artists whose works provide insightful and critical commentary about major features of American life and society, including visits to various key African American art institutions in Los Angeles. Concurrently scheduled with course CM121D, P/NP or letter grading.

CM112E. African American Art. 
(Same as Art History CM112E.) Lecture, three hours. Continuation of course CM112D, involving detailed inquiry into work of 20th-century African American artists. Concurrently scheduled with course CM121E. P/NP or letter grading.

CM112F. Imaging Black Popular Culture. 
(Same as Art History CM112F.) Lecture, three hours. Critical examination of major historical trends and political philosophies as they have been applied and interpreted by African American thinkers touching on themes and conflicts in black political thought, political context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M114D. African American Freedom Narratives. 
(Same as Political Science M114D.) 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 American thinkers touching on themes and conflicts in black political thought, political context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M114E. Ethnic Politics: African American Politics. 
(Same as Political Science M114E.) Lecture, three or four hours; discussion, one hour (when scheduled). Historical, psychological, and thematic interpretation of selected narratives from African American culture and politics. P/NP or letter grading.

M120. Race, Inequality, and Public Policy. 
(Same as Policy Studies M120.) Lecture, three hours. Background in economics, sociology, or urban studies preferred but not required. Several weeks required to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

M144. Ethnic Politics: African American Politics. 
(Same as Political Science M144B.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level political science course or one upper division course in race or ethnicity from history, psychology, or sociology. Requisite: Political Science 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in the U.S., touching on conditions facing racial and ethnic groups, with black Americans being the primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of the black community, (2) to analyze important political issues facing black Americans, and (3) to sharpen students’ analytical skills. P/NP or letter grading.

M145. Ellingtonia. 
(Same as Ethnomusicology M145.) Lecture, three hours; discussion, one hour. Music of Duke Ellington, Ellington’s life, and far-reaching influence of his efforts. Ellington’s music, known as “Ellingtonia,” is one of the largest and perhaps most important bodies of music ever produced in the U.S. Covers the compositions and art of Duke Ellington, as well as compositions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Coolies Williams, and Mercer Ellington. P/NP or letter grading.

M158A. Comparative Slave Systems. 
(Same as History M158A.) Lecture. Designed for juniors/seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North American, Caribean, and Latin American slave societies. P/NP or letter grading.

M158B-M158C. Introduction to Afro-American History. 
(Same as History M158B-M158C.) Lecture. 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.

M158D. Recent African American Urban History. 
(Same as History M158D.) Lecture. Designed for juniors/seniors. Examination of black social and political life in selected African American urban settings from 1945 to the present, with emphasis on impact of recent social and political movements such as civil rights, black power, black feminism, and hip hop. Use of secondary historical literature as well as primary source materials from that period. P/NP or letter grading.

M159P. Constructing Race. (4) (Same as Anthropology M159P) Lecture, three hours. Examination of race, a socially-constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in the U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

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

M166. Afro-American Sociolinguistics: Black English. (4) (Same as Anthropology M145.) Lecture, three hours. Basic sociolinguistic understanding of Black English, an important minority dialect in the U.S. Social implications of minority dialects examined from perspectives of their genesis, maintenance, and social functions. General problems and issues in fields of sociolinguistics examined through a case-study approach. Letter grading.

M172. The Afro-American Woman in the U.S. (4) (Same as Psychology M172 and Women's Studies M172.) Lecture, two and one-half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of African-American women as members of a large society and as members of their biological and ethnic group. P/NP or letter grading.

M175. Interracial Work, Friendship, and Love Relationships of African American Men and Women. (4) (Same as Women's Studies M173.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Afro-American literature. Topics include the Harlem Renaissance; Afro-American Literature in the Nadir, 1890 to 1914; contemporary Afro-American Fiction. May be repeated for credit. P/NP or letter grading.

M197A. Topics in Afro-American Literature. (5) (Same as English M197A.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Afro-American literature. Topics include the Harlem Renaissance; Afro-American Literature in the Nadir, 1890 to 1914; contemporary Afro-American Fiction. May be repeated for credit. P/NP or letter grading.

M197R. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as American Indian Studies M197R, Asian American Studies M197R, Chicana and Chicano Studies M197R.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as a case. Letter grading.

M199. Special Studies in Afro-American Studies. (2 to 4) Tutorial, to be arranged with faculty member who directs the study. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Intensive directed research project. Eight units may be applied toward major requirements. P/NP or letter grading.

Graduate Courses

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

M200B. Seminar: Political Economy of Race. (4) Seminar, three hours. Seminar on political economy, with special reference to black political economy and with focus on dynamics of allocation of wealth and power resources among social classes and racial and ethnic groups in the U.S. Presented in a context that is at once comparative and international. Seminar emphasis is on internationalism and transnationalism as well as the uniqueness of the Afro-American condition. Attempts to relate the black condition in the U.S. to the socioeconomic system of this country and to compare it to political, social, and economic conditions of African peoples elsewhere. S/U or letter grading.

M200C. Selected Problems in Urban Sociology. (4) (Same as Sociology M262.) Seminar, three hours. S/U or letter grading.

M200D. Afro-American Sociolinguistics: Black English. (4) (Same as Anthropology M243Q.) Lecture, three hours. Basic information on Black American English, an important minority dialect in the U.S. Social implications of minority dialects examined from perspectives of their genesis, maintenance, and social functions. General problems and issues in fields of sociolinguistics examined through a case-study approach. Students required to conduct research in consultation with instructor and participate in group discussion. 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 backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.


M212A. African American Music in California. (4) (Same as Ethnomusicology M212A.) 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 CM112A. S/U or letter grading.

M212D. African American Art. (4) (Same as Art History CM212D.) Lecture, three hours. Detailed inquiry into work of 20th-century African American artists. Concurrently scheduled with course CM112D. S/U or letter grading.

M212E. African American Art. (4) (Same as Art History CM212E.) Lecture, three hours. Continuation of course CM212D, involving detailed inquiry into work of 20th-century African American artists. Concurrently scheduled with course CM112E. Letter grading.

M212F. Imaging Black Popular Culture. (4) (Same as Art History CM212F.) Lecture, three hours. Critical examination of media ranging from African American painting and sculpture to MTV and advertising, with emphasis on relationship between black visual production and racism, Afrocentrism, political resistance. Arranged by consent of instructor. Concurrently scheduled with course CM112F. S/U or letter grading.

M240. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with an African American child and family. 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. S/U or letter grading.

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

596. Directed Readings and Tutorials. (4 or 8) Tutorial, to be arranged. Provided with umbrella under which they can pursue specialized interests from which there is insufficient demand to warrant offering a formal course. S/U or letter grading.

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

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

American Indian Studies

Interdepartmental Program College of Letters and Science

UCLA

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Undergraduate Study

American Indian Studies B.A.

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

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

Preparation for the Major

Required: American Indian Studies 10 and two courses from Anthropology 9, Political Science 40, Sociology M18, Women's Studies 10. All courses must be completed with a grade of C or better.

Transfer Students

To be admitted as American Indian Studies majors, transfer students 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 American politics, introduction to statistical methods, and introduction to women's studies.

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. Three additional electives 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, the nation building course prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that provides service experience and/or supervised internship opportunities.

Students must complete 14 upper division courses (56 units) as follows:

1. Ten core courses (40 units), including (a) American Indian Studies M161, (b) two language courses from Anthropology M140, C144, Linguistics 114, (c) two history courses from History 157A, 157B, 165C, (d) one social sciences course from Anthropology CM168P, 172A, 172B, 172R, M172V, or 174P, (e) two expressive culture courses from Art History C117A through C117D, 118D, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, World Arts and Cultures C109B, (f) one methodology course from Anthropology 115P, 117, 138, 139, 143, 180, M186, Art History 100, Community Health Sciences 196A, Comparative Literature 100, Ethnomusicology 180, History 196, Linguistics 160, Political Science 102, 104A, Social Welfare 103, 106, Sociology 104, 106A, 113, or World Arts and Cultures 176, and (g) either one ethnic/race/gender relations course (Afro-American Studies M120, M164, Anthropology M134, 152, M154P, M154Q, Asian American Studies 130A through 130E, Chicana and Chicano Studies 182, Communication Studies M124, Film and Television 128, Sociology 154, 156, M162, M167, Women's Studies M104C, 130, 142, or 188) or one comparative indigenous studies course (Anthropology 153P, Comparative Literature 158, Geography 131, History 140A, 144, or Sociology 157)

2. Three elective courses (12 units) in one of the following options: (a) history and social sciences: two courses in those categories as listed above and one expressive culture course or (b) expressive culture: one social sciences course and two expressive culture courses

3. American Indian Studies 158 (experiential service learning or supervised internship)

The 14 courses must fit one of the following regional emphasis patterns: (1) Native North America — eight courses, including those mentioned above 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 and/or South America. All courses must be taken for a letter grade, and students must maintain an overall 2.0 grade-point average. No more than two inde-
American Indian Studies

Graduate Degrees

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

American Indian Studies

Lower Division Course

10. Introduction to American Indian Studies. (5) 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.

Upper Division Courses

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

M161. Comparative American Indian Societies. (4) (Same as Sociology M161.) Lecture, three hours. Required: course 10 or Sociology 1. Comparative and historical study of political, economic, and cultural change in indigenous North American societies. Several theories of social change, applied to selected case studies. Letter grading.

CM168P. Perspectives on Health of Native North Americans. (4) (Same as Anthropology CM168P.) Seminar, three hours. Recommended preparation: some knowledge of medical anthropology and/or history and contemporary situation of first peoples of North America. Examination of different perspectives related to health and health care of Native North Americans (within present boundaries of the U.S. and Canada) in relation to cultural, social, political, and economic aspects of changing historical context. Concurrently scheduled with course CM268P. P/NP or letter grading.

197. Special Topics in American Indian Studies. (4) Lecture, four hours. Variable topics selected from the following: Myth and Folklore of Indian Societies; Contemporary American Indian Literature; Social Science Perspectives of American Indian Life; Law and the 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.

M197R. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as Afro-American Studies M197R, Asian American Studies M197R, and Chicana and Chicano Studies M197R.) Lecture, three hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as a case. Letter grading.

199. Special Studies in American Indian Studies. (2 to 4) Tutorial, to be arranged. Special individual studies on topics in American Indian studies. P/NP or letter grading.

Graduate Courses

M200A. Advanced Historiography of American Indian Peoples. (4) (Same as History M200W.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indian concepts of history. Stereotypical approach to content and methodologies related to the Indian past that is interdisciplinary and multicultural in its scope. Letter grading.

M200B. Cultural World Views of Native America. (4) (Same as English M268.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms — dance, art, song, religious and medicinal ritual — in selected Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodologies applied 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 the American Indian. (4) (Same as Anthropology M269 and Sociology M275.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in the contemporary world, building on historical background presented in course M200A and cultural and experiential experience of American Indians presented in course M200B. Letter grading.

201. Topics in American Indian Studies. (4) Discussion, three hours. S/U or letter grading.

M228. Seminar: Indian Law — Tribal Legal Systems. (4) (Same as Law M528.) Seminar, two hours (15 weeks). Study of historic and contemporary legal systems of selected tribes, with emphasis on relationships among law, religion, and social order. Letter grading.

M238. Indian Law Clinic: Legislation. (5) (Same as Law M428.) Lecture, three hours. Students provide nonlitigation legal assistance to Native American tribal nations, mostly in California. Clinic services include development and modification of tribal legal codes and constitutional provisions, development of tribal courts and other dispute resolution processes, and drafting of intergovernmental agreements. Cross-cultural representation, legislative drafting, and intergovernmental negotiation skills stressed. Letter grading.

261. Comparative Indigenous Societies. (4) Lecture, two hours; discussion, two hours. Recommended for graduate students. Investigation of detailed historical and contemporary ethnographic analyses of social change and cultural continuity within indigenous nations, mostly in Canada, in relation to cultural, social, political, and economic aspects of changing historical context. Cross-cultural representation, legislative drafting, and intergovernmental negotiation skills stressed. Letter grading.

M267. Indian Law. (5) (Same as Law M267.) Lecture, three hours (15 weeks). Special legal status of American Indians and Indian tribes and tension between moral/legal claims and political forces. Sources and scope of federal, state, and tribal power on Indian reservations; property law concepts unique to Indian tribes and Indians; rights of American Indians in relation to federal, state, and tribal governments and federal trust relationship to Indians. Letter grading.

CM268P. Perspectives on Health of Native North Americans. (4) (Same as Anthropology CM268P.) Seminar, two hours (15 weeks). Study of historic and contemporary legal systems of selected tribes, with emphasis on relationships among law, religion, and social order. Letter grading.

Course details and requirements are available on the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
ANTHROPOLOGY
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Karen B. Brodkin, Ph.D.
Carole H. Browner, Ph.D., in Residence
Christophor B. Donnan, Ph.D.
Alessandro Duranti, Ph.D.
Robert B. Edgerton, Ph.D., in Residence
Alan Page Fiske, Ph.D.
Linda C. Garro, Ph.D.
Marjorie Harness Goodwin, Ph.D.
Sondra Hale, Ph.D.
Douglas W. Hollan, Ph.D.
Allen W. Johnson, Ph.D.
Paul V. Kroskity, Ph.D.
Nancy E. Levine, Ph.D.
Claudia Mitchell-Kernan, Ph.D.
Elinor Ochs, Ph.D.
Dwight W. Read, Ph.D.
Joan B. Silk, Ph.D.
Charles S. Stanish, Ph.D.
Russell Thornton, Ph.D.
Thomas S. Weisner, Ph.D., in Residence
Yunxiang Yan, Ph.D.

Professors Emeriti
C. Rainer Berger, Ph.D.
Nicholas Blurton Jones, Ph.D.
William O. Bright, Ph.D.
Walter R. Goldschmidt, Ph.D.
Peter B. Hammond, Ph.D.
John G. Kennedy, Ph.D.
Lewis L. Langness, Ph.D.
Jacques Maquet, Ph.D.
Michael Moerman, Ph.D.
Philip L. Newman, Ph.D.
Henry B. Nicholson, Ph.D.
Wendell H. Osawalt, Ph.D.
Merrick Posnansky, Ph.D.
Douglass R. Price-Williams, Ph.D.
Douglas R. Price-Williams, Ph.D.
James R. Sackett, Ph.D.
Johannes Wilbert, Ph.D.
Bobby Joe Williams, Ph.D.

Associate Professors
Gail E. Kennedy, Ph.D.
Richard G. Leslie, Ph.D.
Richard M. Leventhal, Ph.D.
Joseph H. Manson, Ph.D.
Marcylena H. Morgan, Ph.D.
Kyeyoung Park, Ph.D.
Mariko Tamanori, Ph.D.

Assistant Professors
H. Clark Barrett, Ph.D.
P. Jeffrey Brantingham, Ph.D.
Daniel Fessler, Ph.D.
Maureen E. Mahon, Ph.D.
Susan E. Perry, Ph.D.
Monica L. Smith, Ph.D.

Scope and Objectives
Anthropology is the study of the broadest of the social sciences, 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 appropri-
ate 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 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 gradu-
ate and undergraduate programs focus on methods of discovery (field and laboratory
courses), strategies of analysis and the hows and whys of long-term cultural evolution (the-
ory, analytic, and topical courses), and the un-
folding 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 the political
organization of complex hunters/gatherers, the origins of early village life, and the emergence
and fluorescence of ancient states. Faculty members maintain programs of field research,
involving many students, in the American Pa-
cific Coast, Mesoamerica, and South America.

Biological anthropology is the study of humans and other primates from a Darwinian point of
view. The program focuses on the evolutionary ecology of early hominids, extant primates,
and contemporary humans and includes train-
ing in evolutionary theory, behavioral ecology,
evolutionary psychology, paleoanthropology,
paleoecology, primate behavior, and mathe-
matical modeling. Faculty members associated
with the program have engaged in fieldwork in
Africa, Central America, and Southeast Asia
where ongoing projects include work on pri-
mate behavior, hominid evolution, and evolu-
tionary psychology.

Linguistic anthropology is an interdisciplinary
field that addresses the manifold ways in which
language, interaction, and culture mutually or-
ganize each other in different communities
worldwide. Linguistic anthropologists at UCLA
have a variety of backgrounds and research in-
terests that include face-to-face communica-
tion, language contact and change, language
and politics, language socialization across the
life span, verbal art and performance, and the
relation of language to ideology, mind, emo-
tion, and identity. Courses are offered in ethno-
graphic approaches to discourse analysis, field
methods, language ideology, conversation
analysis, language socialization, and commu-
nication in urban communities, as well as on
cross-cultural language practices.

Sociocultural anthropology concerns the ex-
amination and understanding of social and cul-

Scope and Objectives
The medical student program in anesthesiol-
ogy focuses on the delivery of peri-operative
care to surgical patients. During their training in
the department, students develop clinical skills
of medical management of surgical patients,
techniques of invasive line and monitor place-
ment, and airway management skills. They are
assigned to work with a specific attending an-
esthiologist and/or anesthesia resident on a
daily basis in one of the operating room loca-
tions and participate in the preoperative evalu-
atation and preparation of their patients and de-
velopment of an anesthetic plan. Students then
observe how to prepare for and execute their anesthetic plan. They have opportunity to per-
form procedures as their abilities and the situa-
tion permit. In addition, the department has es-

tablished the Human Patient Simulator which
provides students with a simulated operating
room setting where a variety of clinical situa-
tions are initiated so they can practice their
clinical skills. Students are also expected to at-
tend clinically oriented lectures on a wide
range of anesthesia topics, including physiolog-
ogy, pharmacology, and critical care.

For further details on the Department of Anes-
thesiology and a listing of the courses offered,
see http://www.anes.ucla.edu.
tural systems and processes, and the human capacities which 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.

Cutting across the four fields are three other categories of course offerings: applied anthropology, regional cultures, and history, theory, and method.

The department offers Bachelor of Arts and Bachelor of Science degrees and a minor in Anthropology for undergraduates; the graduate program leads to the Master of Arts and Ph.D. 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 B.A.**

**Preparation for the Major**

**Required:** Anthropology 7 or 12, 8, 9, 33. All courses must be taken for a letter grade, and students must maintain an overall 2.0 grade-point average.

**Transfer Students**

To be admitted as Anthropology B.A. majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, and one culture and communication course.

**The Major**

The major is designed for students interested in an anthropological understanding of human behavior. One of the strengths of anthropology is its cross-cultural “holistic” and integrative approach with many fields, such as biology, history, linguistics, the social sciences, and many of the humanities.

To provide a comprehensive understanding of the discipline as a whole, students must take two courses in the sociocultural anthropology field and one course in each of the other three fields (see “Scope and Objectives”). Students may take any upper division course in the given area to fulfill this requirement. All courses must be taken for a letter grade, and students must maintain an overall 2.0 GPA.

Students must complete 13 courses (52 to 60 units) as follows:

1. **Two upper division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology)**
2. **One upper division region and society course**
3. **One upper division history/theory course**
4. **One upper division methodology course**
5. **Three additional upper division anthropological courses**
6. **Two related fields courses that demonstrate cohesion, to be selected in consultation with the undergraduate adviser and approved by the department**

**Concentrations for the Major**

Concentrations, although not required, may help define and structure an Anthropology major when students want emphasis in one of the four major fields. Whether or not they opt for a concentration, the requirements for the major must still be satisfied. It is possible to use courses within their specified concentration to fulfill overlapping requirements for the major. Exceptions to the requirements below are by petition only. More detailed information on the concentrations is available from the undergraduate adviser.

1. **Archaeology:** Anthropology 115P (fieldwork); two laboratory methods courses from 117, 117P, 117Q; one course from 111, 183; one methods course from C115R, 129Q, 138; one quantitative methods course from M80, 180, M186; two area courses from 112, 113P, 113Q, 113R, 114P, 114Q, 114R, C114S, M115A, M115B, M119; one theory course from 120, 124, 126, 130, 152, 153, 153P, 156, 158, 166P, CM189A, CM189B.

2. **Biological Anthropology:** Anthropology 120; one quantitative methods course from M80, 180, M186; one methods course from 115P, 117, 117P, 117Q, 143; one human biology and behavioral ecology course from 124, 186P, CM189A, CM189B; one paleoanthropology course from 121A, 121B, 121C, or both 121 and 129Q (credit is not granted for both courses 7 and 12); one human genetics course from Molecular Cell, and Developmental Biology CM156, Organismic Biology, Ecology, and Evolution C135; one primatology research course from Anthropology 128A, 128B, Organismic Biology, Ecology, and Evolution 129.

3. **Linguistic Anthropology:** Anthropology 33, M140, Linguistics 20, Sociology CM124A; two methods courses from Anthropology 141, 142A, 143, Linguistics 103; one ethnography course from Anthropology C144, M145, 146, Linguistics 114; one course from Anthropology 133Q, 133R, 135A, 135B, 135C, Communication Studies 100, Linguistics 110, 127, Psychology M137J; one term of a non-European language.

4. **Sociocultural Anthropology:** Anthropology 130, 150; one primary course from three of the four subconcentrations listed below; two history, theory, and methods courses from M80, 139, 180, 182, M186, Sociology 101; one region and society course from M154Q, 158, 171, 172A, 172B, 172R, M172V, 173Q, 174P, 175Q, 175R, 175S, 175T, 175U, 175V, 176, 177; two additional courses from one of the subconcentrations listed below:
   a. **Applied and Development Subconcentration:** Primary course: Anthropology 161; additional courses: M155Q, 167, M168, M186, International Development Studies 100B.
   b. **Ecological and Evolutionary Subconcentration:** Primary course: Anthropology 153; additional courses: 128A, 128B, 132, 158, 165, M186, 186P, Geography 140.
   c. **Social Processes and Practice Subconcentration:** Primary courses: Anthropology M151, 152, M154P, M154Q; additional courses: 88, 128A, 128B, 153, M155, 156, 158.
   d. **Psychocultural and Medical Subconcentration:** Primary courses: Anthropology 135A, 135B, 135C, 135T; additional courses: 135S, M168.

**Anthropology B.S.**

**Preparation for the Major**

**Required:** Anthropology 7 or 12, 8, 9, 33; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14CL, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 1, 2, 3, 4; Mathematics 3A, 3B, and 3C, or 31A and 31B; Physics 6A, 6B, and 6C. All courses must be taken for a letter grade, and students must maintain an overall 2.0 grade-point average.

**Transfer Students**

To be admitted as Anthropology B.S. majors, transfer students 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.

**The Major**

The major provides 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. All courses must be taken for a letter grade, and students must maintain an overall 2.0 GPA.

Students must complete 10 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 region and society course.
3. One statistics course.
4. One upper division history/theory course.
5. Two additional upper division anthropology courses.

**Anthropology Minor**

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 7 or 12, 8, 9, 33.
**Required Upper Division Courses (20 units minimum):**
- Core course (Anthropology 111, 120, 130, M140, or 150) from one of the four anthropology fields listed above; four additional courses. Students are encouraged to concentrate their upper division coursework within one field and are required to consult with the undergraduate adviser in planning their program of study.
- All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**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 197TA through 197HD. Course 197TA is taken in Winter Quarter and 197HB in Spring Quarter. Research should be done in summer, and courses 197HC and 197HD 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.

**Computing Specialization**

Majors in either anthropology bachelor's degree program may select a specialization in Computing by (1) completing Program in Computing 10A, 10B, and 10C or 15, (2) completing one course from Anthropology 180 or M186, (3) completing either a 199 course that focuses on the integration of computer methods with anthropological studies or one course from Program in Computing 60 or Mathematics 61, or an equivalent course (subject to approval of the departmental computer committee), and (4) satisfying all the other requirements for a bachelor's degree in the specified major. Students graduate with a bachelor's degree in their major and a specialization in Computing. Interested students should contact the undergraduate adviser.

**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.

33. **Culture and Communication.** (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Introduction to study of communication from anthropological perspective. Formal linguistic methods compared with ethnographically oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, miscommunication, political discourse, and art-making as cultural activity. P/NP or letter grading.

34. **Introduction to Urban Speech Communities.** (4) Lecture, three hours; discussion, one hour. Introduction to study of speech communities in metropolitan areas, with special focus on communities in Los Angeles. Emphasis on ways in which communities share and incorporate speech norms of urban society while maintaining rules for conduct and interpretation of speech within specific speech communities. Topics include language and identity, socialization, social dialects, and communication. P/NP or letter grading.

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**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Anthropology.

**Anthropology**

**Lower Division Courses**

7. **Human Evolution.** (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Evolutionary processes and evolutionary past of the human species. P/NP or letter grading.

8. **Archaeology: An Introduction.** (5) Lecture, three hours; discussion, one hour; one field trip. Required as preparation for both bachelor's degrees. General survey of field and laboratory methods, theory, and major findings of anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

9. **Culture and Society.** (5) Lecture, three hours; discussion, one hour; fieldwork. Required as preparation for both bachelor's degrees. Introduction to study of culture and society in comparative perspective. Examples from societies around the world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is the contribution and knowledge that cultural diversity makes toward understanding the problems of the modern world. P/NP or letter grading.


111. **Theory of Anthropological Archaeology.** (4) Lecture, three hours. Required as preparation for both bachelor's degrees. Introduction to study of prehistory and human evolution of the Americas. Emphasis on evolutionary processes. Formal linguistic methods compared with ethnographically oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, miscommunication, political discourse, and art-making as cultural activity. P/NP or letter grading.

33. **Culture and Communication.** (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Introduction to study of communication from anthropological perspective. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, miscommunication, political discourse, and art-making as cultural activity. P/NP or letter grading.

**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 197TA through 197HD. Course 197TA is taken in Winter Quarter and 197HB in Spring Quarter. Research should be done in summer, and courses 197HC and 197HD 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.

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**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.
114P. Ancient Civilizations of Western Middle America (Nahuati Sphere). (4) Lecture, three hours. Pre-Hispanic and Conquest period native cultures of Western Middle America, as revealed by archaeology and early colonial writings in Spanish and Indian languages. Toltec/Aztec and Mixteca civilizations and their predecessors, with emphasis on sociopolitical systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

114Q. Ancient Civilizations of Eastern Middle America (Maya Sphere). (4) Lecture, three hours. Pre-Hispanic and Conquest period native cultures of Eastern Middle America, as revealed by archaeology and early colonial writings in Spanish and Indian languages. Lowland and Highland Maya civilizations and their predecessors, with emphasis on sociopolitical systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

114R. Ancient Civilizations of Andean South America. (4) Lecture, three hours. Required: course 8 or 9. Pre-Hispanic and Conquest period native cultures of Andean South America, as revealed by archaeology and early Spanish writing. The Inca and their predecessors in Peru, with emphasis on socio-political systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

C114S. Comparative Study of Ancient States. (4) Lecture, three hours. Comparative anthropological study of ancient civilizations in the Near East, Mesopotamia, the Andes, the Inca Empire, and the Americas, including the prehistoric past and the early colonial period. P/NP or letter grading.

115P. Archaeological Field Training. (6 or 13) Lecture, two to three hours; fieldwork, to be arranged (nine hours minimum for 6 units, 50 hours minimum for 13 units). Required: course 8. Off-campus field archeological course offered in either regular session or summer. Procedures of archaeological excavation, recording, mapping, surveying, and initial analysis of archaeological data. P/NP or letter grading.

C115R. Strategy of Archaeology. (4) Seminar, three hours. Required: seniors/seniors. Introduction to problem formulation, theory, and method in archaeology, with emphasis on development of research design. Focus on how archaeological research is conceived and planned, with consideration of differing viewpoints and their usefulness. Concurrently scheduled with course C215R. Letter grading.

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

117. Archaeological Laboratory Methods. (6) Lecture, three hours; laboratory, two to three hours. Required: course 8. Introduction to archaeological analysis of range of prehistoric cultural materials. Procedures of classification, data entry, and hypothesis testing. Extensive laboratory work with lithic artifacts, vertebrate fauna, shellfish, plants, remains, bone and shell tools, ceramics, P/NP or letter grading.

117F. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours. Required: 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.

117G. Intensive Laboratory Training in Archaeology. (6) Formerly numbered 117P. Lecture, three hours; laboratory, three hours. Required: course 8. Archaeologists with specialization in archaeological analytical techniques and topics oversee intensive laboratory training on one of following topics: zooarchaeology, ethnobotany, lithic analysis, ceramic analysis, etc. May be repeated for credit with topic change. P/NP or letter grading.


Biological Anthropology

120. Survey of Biological Anthropology. (4) Lecture, three hours. Required: course 7. Limited to majors and graduate anthropology students. Survey of biological anthropology including all major subareas. (Core course for biological field.) P/NP or letter grading.

120G. Biological Anthropology in Review. (5) Lecture, three hours; seminar, three hours. Limited to graduate anthropology students. Required for anthropology graduate students who have a deficiency in biological anthropology. May be taken independently for credit. P/NP or letter grading.

121A. Primate Fossil Record. (4) Lecture, three hours. Required: course 7 or 12. Introduction to method and theory in paleoanthropology. Primate evolution, Cretaceous through the Miocene. May be taken independently for credit. P/NP or letter grading.

121B. Australopithecines. (4) Lecture, three hours. Required: course 7 or 12. Morphology, ecology, and behavior of the genus Australopithecus. History of their discoveries and their place in human evolution. May be taken independently for credit. P/NP or letter grading.

121C. Evolution of Genus Homo. (4) Lecture, three hours. Required: course 7 or 12. Origin and evolution of the genus Homo, including archaic sapiens and Neanderthals. Morphology, ecology, and behavior of these groups. Course ends with appearance of modern man. May be taken independently for credit. P/NP or letter grading.

121P. Reconstructing Hominid Behavior and Paleoecology. (4) Seminar, three hours. Use of paleontological evidence to infer late Pliocene and early Pleistocene hominid behavior and environmental context of human evolution. P/NP or letter grading.

121Q. Paleoanthropology in Review. (6) Lecture, three hours; seminar, three hours. Corequisite: course 12. Limited to juniors/seniors. Designed for advanced students with interest in human evolution, fossil evidence, and theoretical constructs. Students attend course 12 lectures, plus three-hour seminar per week. P/NP or letter grading.


129Q. Paleopathology. (4) Lecture, one hour; laboratory, three hours. Required: seniors/seniors. In-clinical perspective on causes of human disease. Emphasis on historical archaeology in North America, particularly to some of the practical applications. P/NP or letter grading.


124P. Evolution of Human Sexual Behavior. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 7 or 10 or 117. Examination of sexual strategies and social behavior from an evolutionary perspective. Emphasis on theories and evidence for differences between men and women in their patterns of growth, maturity, and mating. May be repeated for credit with members of the opposite sex. Letter grading.


128A. Primate Behavior Nonhuman to Human. (4) Lecture, three hours; discussion, one hour (when scheduled). Required for Anthropology, Applied Linguistics, and Communication Studies majors. Evolutionary, functional, design, and diversity of animal communication systems such as bird song, dolphin calls, whale song, primate social signals, and human language. Letter grading.


128Q. Paleoanthropology. (4) Lecture, one hour; laboratory, three hours. Required: seniors/seniors. Introduction to disease, trauma, health status, subsistence activities, and ethnic mutation (i.e., cranial deformation, trepanation) through analysis of human skeletal materials. Course has worldwide scope, with some emphasis on the New World. Letter grading.

Cultural Anthropology

130. Study of Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Required: course 9. For juniors/seniors. The 20th-century elaboration and development of the concept of culture. Examination of five major paradigms: culture as a human capacity, as patterns and products of behavior, as systems of meaning and cognition, as generative structure and semiotic system, as a component in social action and reality construction. (Core course for cultural field.) P/NP or letter grading.

132. Technology and Environment. (4) Lecture, three hours. Significance of material culture in archaeological and ethnological problems of invention and the development of innovations; ecological and sociological concomitants of technological systems; selected problems in material culture. P/NP or letter grading.

133R. Aesthetic Systems. (4) Lecture, three hours. Designed for juniors/seniors. Provides framework for a cross-cultural understanding of aesthetic phenome-
nas that meets the requirements of anthropological re-
search. Human capacities for aesthetic experience; sociocultural formation of aesthetic production; ethno-
aesthetics; experiential dimension of aesthetic pro-
duction. Lectures and discussion. P/NP or letter grading.

134. Cultural Construction of Gender and Sexu-
ality: Homosexualities. (4) Same as Honors Col-
legium M129 and Gay, Bisexual, and Trans-
gender Studies M134.) Seminar, three hours. Com-
parative analysis of role of environment, history, and 
culture in structuring of patterns of same-sex erotic 
behavior in Asia, Africa, Middle East, Pacific, Carib-
bean, and aboriginal America. P/NP or letter grading.

135A-135B. Introduction to Psychological Anthro-
pology. (4-5) P/NP or letter grading:
135A. Historical Development. (4) Lecture, three 
hours. Requires: course 9. Survey of the field of psy-
chological anthropology, with emphasis on early foun-
dations and historical development of the field. Topics 
include study of personality, pathology and deviance, 
altered states of consciousness, cognition, motiva-
tion, and emotion in different cultural settings. P/NP 
or letter grading.

135B. Current Topics and Research. (5) Lecture, 
three hours; discussion, one hour. Designed for jur-
iors/seniors. Survey of the field of psychological an-
thropology with current topics and re-
search. Topics include study of personality, pathology 
and deviance, altered states of consciousness, cogni-
tion, motivation, and emotion in different cultural set-
tings, P/NP or letter grading.

135C. Seminar: Psychocultural Studies. (4) Semi-
nar, three hours. Requires: course 9. Firsthand expo-
sure to current research in psychocultural studies. 
Various university scholars are brought in to discuss 
their on-going research. Using these presentations as 
models, students develop proposals for future re-
search, P/NP or letter grading.

135S. Anthropology of Deviance and Abnormality. 
Lecture, four hours. Requires: course 9. Rela-
tionship between culture and recognition of, respons-
estoward, and forms of deviant and abnormal behav-
ior. Letter grading.

135T. Psychoanalysis and Anthropology. (4) 
Lecture, three hours. Exploration of mutual relations 
between anthropology and psychoanalysis, considering 
both theory and method. History of and current devel-
opments in psychoanalysis; anthropological critiques 
of psychoanalytic theory, toward a cross-
cultural psychoanalytic approach. Letter grading.

136O. Laboratory for Naturalistic Observations: 
Developing Skills and Techniques. (4) (Formerly 
named M136Q.) Laboratory, three hours. Skill of 
observing and recording behavior in natural settings, 
with emphasis on field training and practice in observ-
ing behavior. Group and individual projects. Discus-
sion of some of the uses of observations and their im-
plications for research in social sciences. P/NP or 
letter grading.

137. Selected Topics in Cultural Anthropology. (4) 
Lecture, three hours. Study of selected topics in cultur-
al anthropology. Consult Schedule of Classes for top-
ics and instructors. May be repeated for credit. P/NP 
or letter grading.

138. Methods and Techniques of Ethnography. (4) 
Lecture, three hours. Introduction to problems and 
procedures of extracting cultural data from documen-
tary sources and their interpretation and analysis. 
Relevant documentary sources of various New World 
regions are selected as case histories to illustrate 
more concrete problems and challenges in this ma-
jor area of anthropological concern. P/NP or letter 
grading.

139. Field Methods in Cultural Anthropology. (5) 
Lecture, three hours; discussion, one hour. Designed 
for juniors/seniors. Introduction to skills and tools of 
data ascertainment through fieldwork in cultural an-
thropology. Emphasis on techniques, methods, and 
concepts of ethnographical research and how basic 
observation is systematized for presen-
tative analysis, and cross-cultural comparison. Letter 
grading.

Linguistic Anthropology 

M140. Language in Culture. (5) Same as Linguis-
tics M146.) Lecture, three hours; discussion, one 
hour; fieldwork, two hours. Requisite: course 33 or 
Linguistics 20. Study of language as an aspect of cul-
ture, relation of habitual thought and behavior to lan-
guage and language and the classification of experi-
ence. Holistic approach to study of language, with 
emphasis on relationship of linguistic anthropology to 
fields of biological, cultural, and social anthropology, 
as well as archaeology. (Core course for linguistics 
field.) P/NP or letter grading.

141. Ethnography of Everyday Speech. (5) Lec-
ture, three hours; fieldwork. Requisite: course 33. De-
signed for juniors/seniors. Course has two interrelat-
ed objectives: (1) to introduce students to ethnogra-
phy of communication — description and analysis of 
situated communicative behavior — and the sociocul-
 tural knowledge we need to train stu-
dents to recognize, describe, and analyze relevant lin-
guistic, proxemic, and kinesic aspects of face-to-face 
interaction. Letter grading.

142A-142B. Microethnography of Communication. 
(4) Lecture, three hours. Requires: course M140. 
Course 142A or Sociology CM124A is requisite to 
142B. Students may produce records (sound tape, 
video/tape, or film) of naturally occurring social inter-
actions which are analyzed in class for interactive tasks, 
resources, and accomplishments displayed. 
Laboratory and fieldwork outside of class and minimal 
taxes to offset costs of equipment maintenance and in-
surance required.

143. Field Methods in Linguistic Anthropology. 
Lecture, three hours. Requisite: course M140. 
Practice in eliciting linguistic data from informants. Ini-
tial focus on phonetic transcription and phonological 
structures; introduction to skills and strategies perti-
nent to morphological, syntactic, and textual analysis. 
Practice with native speakers of non-Indo-European 
languages is normally an important aspect of student 
participation. P/NP or letter grading.

C144. Native American Languages and Cultures. 
(4) (Formerly named 144.) Lecture, three hours. 
Requisite: course 33 or American Indian Studies 10. 
Introduction and comparative analysis of sociocultural 
aspects of language use in Native North American 
Indian speech communities. Specific foci include both 
macro- and micro-sociolinguistic topics. Micro-sociol-
inguistic topics are comprised of such issues as multi-
lingualism, cultural differences regarding appropriate 
communicative behavior and variation within speech 
communities (e.g., male and female speech, baby talk, cereal speech, etc.). Macro-sociolinguistic 
considerations include language contact and its rela-
tionship to language change and language in Ameri-

can Indian education. Concurrently scheduled with 
course C144P P/NP or letter grading.

M145. Afro-American Sociolinguistics: Black En-
glish. (4) (Same as Afro-American Studies M166.) 
Lecture, three hours. Basic information on Black 
American English, an important minority dialect in the 
U.S. Sociolinguistic reflexes and dialects examined from 
perspectives of their genesis, maintenance, and 
social functions. General problems and issues in fields 
of sociolinguistics examined through a case-
study approach. Letter grading.

146. Language and Culture of Polynesia: Past, 
Present, and Future. (4) Lecture, three hours. Requ-
site: course 33. Introduction to Polynesian cultures 
and languages, with particular focus on past and 
present sociocultural systems, patterns of language 
structure and language use, verbal art, language so-
cialization strategies, and forms of cultural assimila-
tion and resistance to European contact. Fieldwork 
on contemporary Polynesian cultures in U.S. urban 
areas. Letter grading.

147. Selected Topics in Linguistic Anthropology. 
(4) Lecture, three hours. Study of selected topics in 
linguistic anthropology. Consult Schedule of Classes 
for topics and instructors. May be repeated for credit. 
P/NP or letter grading.

M148. Talk and the Body. (4) (Same as Applied Lin-
guistics and TESL M161 and Communication Studies 
M123.) Seminar, four hours. Relationship between 
language and human body raises a host of interesting 
Topics. New approaches to phenomena such as em-
bodiment become possible when the body is ana-
lyzed, not as an isolated entity, but as a visible agent 
whose talk and action are lodged within both process-
es of human interaction and rich settings where peo-
ple pursue courses of action that count in their lives. 
Letter grading.

149A. Language and Identity. (4) Lecture, three 
hours. Requisite: course 33. Language as social phe-

omenon. Introduction to several angles from which 
language use can be critically examined as integral to 
interactions between individuals and between social 
groups. Letter grading.

149B. Gender and Language in Society. (4) Lec-
ture, three hours. Requisite: course 33. Examination 
of role language plays in social construction of gender 
identities and ways in which gender impacts language 
use and ideologies. Letter grading.

149C. Multilingualism: Communities and Histo-
ries in Contact. (4) Lecture, three hours. Requisite: 
course 33. Examination of communicative, political, 
and poetic aspects of use of two or more languages 
(multilingualism) by individuals and by groups. Broad-
er themes in social theory, anthropological inquiry, 
sociolinguistics, and literary studies in lectures to con-
textualize class readings. Letter grading.

149D. Language, Culture, and Education. (4) 
Lecture, three hours. Requisite: course 33. Examination 
of various ways in which culture, and language in par-
ticular, influence not only educational processes and 
outcomes, but also the very conceptions of what nor-
mal development processes desirable education-

al outcomes are. Letter grading.

M149E. Language Socialization. (4) (Same as Ap-
p lied Linguistics and TESL M125.) Seminar, four 
hours. Exploration of process of socialization through 
language, and socialization to use language across 
life span, across communities of practice within a sin-
gle society, and across different ethnic and socioeco-

gonomic groups. Examination of ways in which verbal 
interaction between novices and experts is structured 
linguistically and culturally. Letter grading.

Social Anthropology 

150. Study of Social Systems. (4) Lecture, three 
hours. Requisite: course 10 or 14. Course has spe-
cialized social anthropology courses. Evaluation of 
variation in sociocultural systems and how societies 
are organized and social relations maintained. Basic 
frameworks of anthropological analysis; historical 
context and development of social anthropology discli-
pline. Letter grading.

M151. Marriage, Family, and Kinship. (4) (Former-
ly numbered 151.) (Same as Women's Studies M151.) 
Lecture, three hours. Requisite: course 9. Exa-
mination of understandings of kinship in cross-cul-

tural perspective and impact of kinship on interper-
sonal relationships, gender roles, and sociocultural 
systems. Readings from primary materials and formal 
ethnographic accounts. P/NP or letter grading.
135. Economic Anthropology. (4) Lecture, three hours. Cross-cultural examination of economic behavior and economic organization in order of corporate groups; ideology. Relations of political institutions to other institutions of society and to issues of identity and representation. Letter grading.


158P. Pastoral Nomads. (4) Lecture, three hours. Requisite: course 9 or 150. Survey of pastoral nomad societies and their relationship to environmental and social demands of livestock domestication and production. Focus on ecological features, cultural practices, and social organization, with special attention to historical interactions between pastoral nomads and settled peoples. Letter grading.

159. Warfare and Conflict. (4) Lecture, three hours. Examination of conflict and violent confrontation as these have been treated in anthropological literature. Cross-cultural comparison of institutions such as raids, feuds, ritual warfare. Consideration of application of anthropological theory to studies of modern warfare, and large-scale ethnic conflict. Letter grading.

M159P. Constructing Race. (4) Same as Afro-American Studies M159P). Lecture, three hours. Examination of race, a socially-constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in the U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

Applied Anthropology


163. Selected Topics in Applied Anthropology. (4) Lecture, three hours. Study of selected topics in applied anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.


165. Demographic Problems in Nonindustrial Societies. (4) Lecture, three hours. Requisite: course 9 or 150. Dynamic interaction between environment, cultural belief, social structure, and population in hunting and gathering, pastoral, horticultural, and agricultural societies. Principal theories of population change and current issues in population policy considered in light of the anthropological evidence. P/NP or letter grading.

166. Cross-Cultural Research on Urban Gangs. (4) Lecture, three hours. Preparation: one anthropological course. Examination of demographic and social characteristics of gangs in three ethnic minority groups: African American, Asian American, and Mexican American. Similarities and differences to be noted in dimensions of gang formation and persistence, subcultural styles, territorial arenas, drug use and abuse, personal motivations, dress habits, etc. Cross-cultural look at major social control institutions (e.g., family, schools, peers, law enforcement, religion) which affect their lives. P/NP or letter grading.

167. Urban Anthropology. (5) Lecture, three hours; discussion, two hours. Designed for junior/senior social sciences majors. Survey of urbanization through-out the world, with emphasis on urban adaptation of rural migrants. Special topics on problems of urban migration of ethnic minority groups and subse- quent adaptation of them within the U.S. explored in terms of methods and perspectives of anthropology. P/NP or letter grading.

M168. Culture, Illness, and Healing. (4) Same as Nursing M158.) Lecture, four hours. Medical anthropology is organized around holistic exploration of ways in which health, illness, and healing practices are socially and culturally mediated. Topics include comparing illness experiences, understandings about health and illness, patterns of care seeking, therapeutic practices, and medical systems in context of different social and cultural settings, including our own. P/ NP or letter grading.


Regional Cultures

Africa

171. Sub-Saharan Africa. (4) Lecture, three hours. Issues in political and economic organization, continuing impacts of colonialism, nationalism, and current challenges for development; changes in social relations. Examination of Africa’s significance to development of anthropology. Cultural background for understanding events in contemporary Africa provided. Letter grading.

North America

172A. Native North Americans. (4) Lecture, three hours. Issues in political and economic organization, continuing impacts of colonialism, nationalism, and current challenges for development; changes in social relations. Examination of Africa’s significance to development of anthropology. Cultural background for understanding events in contemporary Africa provided. Letter grading.

172R. Cultures of the Pueblo Southwest. (4) Lecture, three hours. Survey of ethnological and social organization, including events in contemporary Africa provided. Lecture grading.

172B. Change and Continuity among Native North Americans. (4) Lecture, three hours. Requisite: course 172A. Consideration of tremendous change Native American societies and cultures have undergone in the last century. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonization and its implications. Letter grading.

172R. Cultures of the Pueblo Southwest. (4) Lecture, three hours. Survey of ethnological and social organization, including events in contemporary Africa provided. Lecture grading.

M172V. Culture Change and the Mexican People. (4) Same as Chicano and Chicana Studies M172V) Lecture, three hours. Requisite: courses 1 or Chicana and Chicano Studies 10A or 10B. Culture change theory encompasses such issues as innovation, syn-cretism, colonization, modernization, urbanization, migration, and acculturation. Anthropologists/ethnographers in using study and analyzing culture change within ethnohistorical back- ground of the Mexican and Mexican American people to clarify social and cultural origins of modern habits and customs and, more importantly, unravel various culture change threads of that experience. Topics include technology and evolution, Indian nations-states, miscegenation, peasant agrarian, industrialization, immigration, ethnicity, and adaptation. Field project on some aspect of culture change required. P/NP or letter grading.
Middle America

173Q. Latin American Communities. (4) Lecture, three hours. Overview of social and cultural anthropology of small communities in Latin America. Similarities and contrasts of cultural organization and interpersonal relations described in context of economic, political, and cultural environments. P/NP or letter grading.

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

South America

173V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea. (4) Lecture, three hours. Preparation: at least one upper division anthropology course. Credit cannot be received for both 173V and 173W. Examination of cultural and institutional factors underlying post-Mao era. Letter grading.

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

175R. Societies of Central Asia. (4) Lecture, three hours. Overview of culture and society among the diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and within the framework of recent national integration, kinship, forms of marriage and status of women, religion and the social order in Hindu/Buddhist culture contact zone, and current problems of modernization. P/NP or letter grading.

175S. Japan. (4) Lecture, three hours. Overview of contemporary Japanese culture, with general introduction to kinship, marriage and family life, social mobility and education, norms and values, religions, patterns of interpersonal relations, social deviance. P/NP or letter grading.

175T. Civilizations of East Asia. (4) Lecture, three hours. General anthropological introduction to the closely linked civilizations of China, Korea, and Japan, providing a comparative analysis of fundamental institutions such as family, state, and religion and assessing effects of urbanization and industrialization. Letter grading.

175U. Cultures of the Indonesian Archipelago. (4) Lecture, three hours. Introduction to past and contemporary civilizations and cultures of Indonesia, including Javanese, Balinese, Toraja, Dayak, and Minangkabau. Geographical, ecological, and historical overview with examination of such topics as religious and political ideas and institutions, art, symbolism and ritual, illness and healing, and psychological issues and themes. P/NP or letter grading.

175V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea. (4) Lecture, three hours. Examination of South Korea's contemporary structural positioning, with focus on its dynamic development out of a history of colonialism and war to capitalism, multiple and conflicting linkages of Korean people involving class, gender, family/kinship, and nation. Letter grading.

175Y. Chinese Family and Kinship. (4) Lecture, three hours. Examination of family and kinship organization in traditional Chinese society, socialist transformation of these institutions on mainland China during Maoist era, and role of familial culture in economic development of Taiwan, Korea, Hong Kong, Singapore, and mainland China in post-Mao era. Letter grading.

Middle East

176. Culture Area of the Middle East. (4) Lecture, three hours. Study of the Middle East has suggested many theories as to developmental history of human kind, evolution of human society, birth of monothelism, and origin of agriculture, trade, and the city. Presenta- tion of anthropological material relevant to under- standing the Middle East as a culture area, and Islam as basis of its shared tradition. Letter grading.

Pacific

177. Cultures of the Pacific. (4) Lecture, three hours. Four major culture areas of Australia, Melanesia, Polynesia, and Micronesia. General geographical features, prehistory, and language distribution of the whole region. Distinctive late-tenth-century “root paradigm” of Western science and its influence on such notables as Darwin, Freud, Hall, Lob- broso, Marx, Piaget, Terman, and others. Consideration of how these influences ethnocentrism and Euro- centrism, sexism, racism, perception of deviance, and our view of culture in general. P/NP or letter grading.

182. History of Anthropology. (4) Lecture, three hours. Brief survey of development of Western social science, particularly anthropology, from Greek and Roman thought to emergence of evolutionary theory and Darwinian “root paradigm” of Western science and its influence on such notables as Darwin, Freud, Hall, Lombroso, Marx, Piaget, Terman, and others. Consideration of how these influences ethnocentrism and Euro- centrism, sexism, racism, perception of deviance, and our view of culture in general. P/NP or letter grading.

183. History of Archaeology. (4) Lecture, three hours. Preparation: at least one upper division archaeology course. Development of world archaeology from the Renaissance to the present, stressing how each of the major branches of archaeology has evolved a special character determined by peculiarities of its own data, methods, and intellectual affilia- tion. P/NP or letter grading.

M186. Models and Modeling in Anthropology. (4) (Formerly numbered 186.) (Same as Honors College M150.) Lecture, three hours. Modeling from both individual and social structure viewpoints. Introduction to four groups of models, along with ethnographic examples — decision tree models, indifference curves and marginal cost models, adaptation and learning models, and information diffusion models. Letter grading.

186P. Models of Cultural Evolution. (4) Lecture, two hours; discussion, one hour. Prerequisite: course 7 or 10. Introduction to Darwinian models of cultural evolution. How organic evolution has shaped the ca- pacity for culture. How processes of cultural transmis- sion and modification explain cultural variation in space and time. P/NP or letter grading.

CM189A-CM189B. Theoretical Behavioral Ecology. (4-4) (Same as Organismic Biology CM189A-CM189B.) Lecture, three hours. Preparation: one upper division introduction to behavioral ecology course, one university-level mathematics course (preferably calculus or probability and statistics). Course CM189A is requisite to CM189B. Students expected to do simple algebra, elementary calculus, and proba- bility. A rich body of mathematical theory describing the evolution of animal behavior exists. Introduction to this body of theory at a pace and mathematical level that allows students to grasp this information. Within each area of theory (e.g., kin selection, optimal foraging theory, etc.), presentation of basic corpus of mod- els so that students understand assumptions that underlie the models, and how main results are derived. Presentations supplemented by a survey of results printed in the literature, especially those derived using more advanced methods. Concurrently scheduled with courses CM289A-CM289B. Letter grading.

Special Studies

M194. Senior Seminar: Language, Interaction, and Culture. (4) (Same as Applied Linguistics and TESL M194 and Sociology M194.) Seminar, four hours. Limited to seniors in Language, Interaction, and Cul- ture minor. Capstone course. Students carry out and present empirical research project that integrates methodologies and perspectives of at least two of the disciplinary areas (anthropology, applied linguistics, sociology) covered in course. Letter grading.

M196A-M196B. Contemporary Issues in Urban Poverty Research. (4-4) (Same as Sociology M196A-M196B.) Lecture, three hours. Prerequisites: Honors Collegium 7A, 7B. Two-term research semi- nar designed to engage students in ongoing faculty research projects focusing on models of urban pover- ty and underclass behaviors. P/NP or letter grading.

197A. Beginning Seminar. (4) Seminar, three hours. Limited to anthropology honors program stu- dents. Survey of major research strategies in anthropo- logy to aid honors students in developing research proposals. Letter grading.

197B. 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. Let- ter grading.

197C. Data Analysis. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major forms of data analysis in anthropolo- gy to aid honors students in analysis of their own re- search data. Letter grading.

197D. Writing for Anthropology. (4) Seminar, three hours. Limited to anthropology honors program students. Teaching of writing for research, with focus on how to write honors theses. Letter grading.

197K-197Z. Selected Topics in Anthropology. (2 to 4 each) Lecture or seminar, three hours. Study of se- lected topics of anthropological interest taught by res- ident and visiting faculty members. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

199. Special Studies in Anthropology. (2 to 8) Tu- torial, to be arranged. Eight units may be applied to- ward upper division anthropology courses required for the major. P/NP or letter grading.

Graduate Courses

200. Proseminar: Practice of Anthropology. (4) (Formerly numbered 200A.) Seminar, three hours. Required of new graduate students. Discussion of what an- thropology as a four-field discipline and interconnec- tions among the four major fields. Practice of anthro- pology as exemplified through faculty presentations of how research is conceived, formulated, and executed. Students develop individual research proposals. Let- ter grading.
200P. Cultural Anthropology Field Preparation. (4) Seminar, three hours. Required: course 200. Follows core preparation for summer research for cultural anthropologists. Students develop specific research methods and present them in seminars. Practical issues (visas, community entry, health concerns) also addressed. S/U grading.

M201A-M201B. Graduate Core Seminars: Archaeology. (6-6) (Same as Archaeology M201A-M201B.) Seminar, three hours. Course M201A is required of anthropology students in archaeology field. Seminar discussions based on carefully selected list of 30 to 40 major archaeology works. These core seminars provide students with foundation in breadth of knowledge required of a professional archaeologist. Archaeological historiography, survey of world archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and relevant interpretative strategies. May be repeated for credit with consent of adviser. 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.


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

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

Archaeology


M211. Regional Analysis in Archaeology. (4) (Same as Archaeology M210C.) Lecture, three hours. Course 210 is not requisite to M211. Survey of analytical methods used in archaeology to study prehistoric settlement systems. Specific issues include settlement distribution with respect to natural resources, settlement hierarchy, and patterns of exchange. Letter grading.

212P. Selected Topics in Hunter/Gatherer Archaeology. (4) Seminar, three hours. Prehistory and ethnography of hunter/gatherer peoples. Consideration of range of issues, including (but not limited to) technological innovations, exchange systems, settlement and mobility, and social change. May be repeated for credit. S/U or letter grading.

M212S. Selected Laboratory Topics in Archaeology. (4) (Same as Archaeology M205A.) Lecture, three hours. Designed for graduate students in archaeology or other departments. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zooarchaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections may be repeated for credit with topic change. S/U or letter grading.

M212T. Intensive Laboratory Training in Archaeology. (6) (Same as Archaeology M205B.) Lecture, three hours. Preparatory laboratory, two hours minimum. Advanced laboratory training for graduate students with extended laboratory hours. Special laboratory-based topics, including but not limited to lithic analysis, ceramic analysis, paleoethnobotany. May be repeated for credit with topic change. S/U or letter grading.

213. Selected Topics in Old World Archaeology. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

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

CM214S. Comparative Study of Ancient States. (4) (Same as Archaeology M214.) Lecture, three hours. Comparative anthropological study of first complex societies of the Near East, Mesopotamia, and the Andes, including early Egyptian, Urk, Teotihuacan, classic Maya, Wari, and Tiwanaku, with focus on political and economic structures of these societies and on causes of state development and collapse. Concurrently scheduled with course C114S. S/U or letter grading.

215. Field Training in Archaeology. (6 or 12) Lecture, two to three hours; fieldwork, eight or more hours outside work periods. Three to six weeks. Off-campus field archaeology course offered in regular session or summer. Intensive training in archaeological excavation, mapping, surveying, recording, preliminary analysis of field data, and project organization/supervision. May be repeated for credit. S/U or letter grading.

C215R. Strategy of Archaeology. (4) Seminar, three hours. Introduction to problem formulation, theory, and method in archaeology, with emphasis on development of research designs. Focus on how archaeological research is conceived and planned, with consideration of differing viewpoints and their usefulness. Concurrently scheduled with course C115R. Complete research proposal required of graduate students. Letter grading.

M216. Topics in Asian Archaeology. (4) (Same as Art History M216.) Lecture, three hours. Required for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religion, archaeological reflections of commerce and trade and their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural “influence.” Letter grading.

217. Explanation of Societal Change. (4) Lecture, three hours. Examination of processes of societal evolution and difference; approaches to a 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.

217A. Archaeology of Urbanism. (4) Seminar, three hours. Evaluation of cities as most complex form of human population center, using both archaeological and modern examples. Observations about modern urban structure and social assessments of social dynamics as cities are constructed and lived in by variety of different ethnic, economic, ritual, and political groups. Letter grading.

218. Style and Ethnicity. (4) Seminar, three hours. How stylistic variation in material culture informs on and mediates the shape, boundaries, and interrelations of ethnic groups. Aimed primarily toward archeologists and ethnographers, seminar also welcomes students specifically interested in either material culture or style as such. Letter grading.

219. Complex Hunters/Gatherers in Theoretical Perspective. (4) Seminar, three hours. Examination of economic, political, and social foundations of complex hunter/gatherer societies, with focus on theory of emergence of complex cultural organization and recognition of complex middle-range societies in the archaeological record. S/U or letter grading.

Biological Anthropology

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

221A-221B. Fossil Evidence for Human Evolution. (4-4) Seminar, four hours. Examination and analysis of fossil evidence for man’s evolution. S/U or letter grading.

Cultural Anthropology

230Q. Theories of Culture. (4) Lecture, three hours. Exploration of aspects within culture theory: emergence of culture with modes of production, discovery of culture and “cultural” change. Investigation of production of culture and transformations of meaning within cultural domains of politics, economy, and religion. S/U or letter grading.


232V. Current Issues in Ethnography. (4) Seminar, three hours. Designed for graduate students. S/U or letter grading.

233P. Symbolic Anthropology. (4) Seminar, three hours. Required: course 133R. Nature of symbolic relations (as distinguished from other referential ones), significance of symbolic systems (in terms of action, cognition, affectivity, contemplation), symbolic and isomorphic logic (as opposed to the causal one) among questions to be selected for analysis and discussion. May be repeated for credit. S/U or letter grading.

233Q. Aesthetic Anthropology. (4) Lecture, three hours. Required: course 133R. Selected questions concerning visual aesthetic phenomena in their relationship with the sociocultural context examined in depth. May be repeated for credit. S/U or letter grading.

M234. Seminar: Psychocultural Studies and Medical Anthropology. (4) (Same as Psychiatry M210.) Seminar, three hours. Devoted to present state of research in psychocultural studies. Survey of work in child development and socialization, personality, psychobiology, transcultural psychiatry, deviance, learning, perception, cognition, and psychocultural perspectives on change. S/U or letter grading.

M234P. Transcultural Psychiatry. (4) (Same as Psychiatry M222.) Lecture, three hours. Consideration of psychiatric topics in cross-cultural perspective, such as studies of drug use, deviance, suicide, homicide, behavioral disorders, “culture specific” syndromes, non-Western psychiatry, and questions of “sick” societies. May be repeated for credit. S/U or letter grading.

M234Q. Psychological Anthropology. (4) (Same as Psychiatry M272.) Lecture, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconscious process as they relate to culture. Topics vary from term to term. May be repeated for credit. S/U or letter grading.
234R. Culture, Cognition, and Being in the World. (4) Seminar, three hours. Whether and how culture and thought shape each other is a historically enduring and controversial topic. Focus on work challenging prevailing implicit acceptance of theoretical separation between study of mind and study of culture. S/U or letter grading.

M234T. Anthropology of Human Body. (2 to 4) (Same as Psychiatry M282.) Seminar, three hours. Exploration of how sociocultural and political dynamics shape perceptions of and understandings about the human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.

M235. The Individual in Culture. (4) (Same as Psychiatry M213.) Lecture, three hours. Designed for graduate students. Letter grading.


M238. Native American Revitalization Movements. (4) (Same as History M650C.) 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.

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

Linguistic Anthropology


M241. Topics in Linguistic Anthropology. (4) (Same as Linguistics M246C.) Lecture, three hours. Problems in relations of language, culture, and society. May be repeated for credit. S/U or letter grading.

M242. Ethnography of Communication. (4) (Formerly numbered 242G.) (Same as Applied Linguistics and TESL M207.) Lecture, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationships of ethnocentric and ethnographic data, cultural and cognitive implications of language structure and use. S/U or letter grading.

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

243P. Native American Languages and Cultures. (4) (Formerly numbered 243P) Lecture, three hours; seminar, two hours. Preparation: prior coursework in either the field of Anthropology or American Indian studies. Introduction and comparative analysis of sociocultural aspects of language use in Native North American Indian speech communities. Specific focus includes both micro-variations and general patterns in which sociolinguistic topics. Micro-sociolinguistic topics are comprised of such issues as multilingualism, cultural differences regarding appropriate communicative contexts and variation within speech communities (e.g., male and female speech, baby talk, ceremonial speech, etc.). Macro-sociolinguistic considerations include language contact and its relationship to language change and language in American Indian speech communities. Concurrently scheduled with course C144. S/U or letter grading.

M243Q. Afro-American Sociolinguistics: Black English. (4) (Same as Afro-American Studies M200Q.) Lecture, three hours. Basic information on Black American English, an important minority dialect in the U.S. Social implications of minority dialects examined from perspectives of their genesis, maintenance, and social function. Basic problems and issues in fields of sociolinguistics examined through a case study approach. Students required to conduct research in consultation with instructor and participate in group discussions.

244. Field Methods in Linguistic Anthropology. (4) Seminar, three hours; work with informant, one hour. Requisite: Linguistics 20 or prior experience in linguistic analysis. Practice in eliciting and transcribing linguistic data from native informants. Initial focus on phonetic transcription and phonological structures; introduction to skills and strategies pertinent to morphological, syntactic, and pragmatic analysis. Practice with native speakers of non-Indo-European languages is an important aspect of student participation. S/U or letter grading.

245. Linguistic and Intracultural Variation. (4) Lecture, one hour; discussion, two hours. Requisite: course 244G. Significant topics on disciplines of anthropology and linguistics. Among objectives of course are the following: to acknowledge importance of speech variation in anthropological linguistic research, to critically assess a broad and representative sample of modern scholarship devoted to study of intra-individual and interindividual variation, and to evaluate utility and potential applicability of new linguistic models to anthropological linguistics and anthropological theory. Letter grading.

M246A. Grammar and Discourse. (4) (Same as Applied Linguistics and TESL M272A.) Seminar, four hours. Requisite: course M246A. Survey of advanced topics in grammar and discourse, including predicates, arguments and grammatical relations, noun phrase categories, case marking, verbal categories, topic marking devices, registers and speech varieties, reported speech, genre and text structure in discourse. Presentation and analysis of data from range of languages. S/U or letter grading.

M246B. Grammar and Discourse Practicum. (4) (Same as Applied Linguistics and TESL M273.) Seminar, four hours. Requisite: course M246A. Survey of advanced topics in grammar and discourse, including predicates, arguments and grammatical relations, noun phrase categories, case marking, verbal categories, topic marking devices, registers and speech varieties, reported speech, genre and text structure in discourse. Preparation and analysis of data from range of languages. S/U or letter grading.

M247. Topics in Semantics and Pragmatics. (4) (Same as Applied Linguistics and TESL M266.) Seminar, four hours. Requisite: Applied Linguistics and TESL 201. Detailed examination of specialized topics in semantics and pragmatics, and 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. Letter grading.


M249A-M249B. Ethnographic Methods in Discourse Analysis. (4) (Same as Applied Linguistics and TESL M270A-M270B.) Seminar, four hours. Two-term sequence on ethnographic approaches to recording and analyzing communicative events as they occur in the sociocultural context, involving student-initiated fieldwork in a community setting. Emphasis on hands-on activities within theoretical frameworks that consider language as a social and cultural practice. M249A. Requisite: course M242 or Applied Linguistics and TESL 260 or Sociology C244A. Devoted to skills related to collecting socially and culturally meaningful data. Letter grading. M249B. Requisite: course M249A. Devoted to production of ethnographic analysis, including how to present an analysis in form of a conference talk and how to develop an analysis into a grant or dissertation proposal. S/U or letter grading.

M249P. Ethnographic Technologies Laboratory I. (4) (Same as Applied Linguistics and TESL M270P) Laboratory, four hours. Corequisite: course M249A or Applied Linguistics and TESL M270A. Hands-on mentorship in entering a community, obtaining informed consent, interviewing, note taking, and video-recording verbal interaction. S/U grading.

M249Q. Ethnographic Technologies Laboratory II. (4) (Same as Applied Linguistics and TESL M270Q.) Laboratory, four hours. Corequisite: course M249B or Applied Linguistics and TESL M270B. Hands-on mentorship in editing ethnographic video footage, incorporating video frame grabs into transcript and analysis of verbal interaction, writing a grant proposal, and assembling a conference presentation. S/U grading.

Social Anthropology


251P. Cultural Ecology. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

252P. Comparative Systems of Social Inequality. (4) Seminar, three hours. Examination in historical and contemporary perspective of particular systems of structured social inequality based on rank, class, caste, ethnicity, gender, age, sexual preference, disability, etc., to develop a unified theory of social inequality. Examples from Asian, Pacific, European, African, and American cultures. S/U or letter grading.

252Q. Anthropology of Resistance. (4) Lecture, one hour; discussion, two hours. Preparation: at least one upper division sociocultural anthropology course. Exploration of recent works in anthropology and other disciplines which address resistance, as part of an effort to understand processes that have shaped modern and postcolonial society and culture. Letter grading.

253. Economic Anthropology. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

254. Kinship. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

255. Comparative Political Institutions. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

255P. Political Economy. (4) Seminar, three hours. Designed for graduate anthropology students. Introduction to range of approaches to political economy of capitalism in relation to issues of nation and state building, race, colonialism, and transnationalism. S/U or letter grading.
256. Anthropology of Conflict. (4) Seminar, three hours. Open to undergraduates with consent of instructor. Examination of events and institutions associated with large-scale or ongoing conflict in a variety of settings. Particular consideration to roots of violence, violent manifestations and cross-cultural misunderstandings, and nature and content of armed confrontation. S/U or letter grading.

257. Space, Place, and Identity. (4) Seminar, three hours. Recent rise of "space/place" in humanities and social sciences seems to relate to crisis of modernity and to provide useful methodologies to students of anthropology and history who are trying to ground their research in specific places. S/U or letter grading.

Applied Anthropology


263P. Gender Systems. (4) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideational systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

M263Q. Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Community Health Sciences M244, Nursing M273, and Psychiatry M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Community Health Sciences M264 and Latin American Studies M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 130, 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 Western-defined diseases with a variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audio-tape. Letter grading.

M265. Anthropology of Genetic Knowledge. (2 to 4) (Same as Psychiatry M283.) Seminar, three hours. Exploration of how sociocultural and political dynamics shape our understandings of genetic discoveries and how genetic information is used to create conceptions of the self and society. Letter grading.

M266. Health and Culture in the Americas. (4) (Same as Community Health Sciences M260 and Latin American Studies M260.) Lecture, three hours; discussion, one hour. Preparation: bilingual skills (English/Spanish) for Spanish discussion section. Recommended requisite: Community Health Sciences 132. Health issues throughout the Americas, especially indigenous/Mestizo Latin American populations. Holistic approach covering politics, economics, history, geography, human rights, maternal/child health, culture. Letter grading.

CM268P. Perspectives on Health of Native North Americans. (4) (Same as American Indian Studies CM268P) Seminar, three hours. Recommended preparation: some knowledge of medical anthropology and/or history and contemporary situation of first peoples of North America. Examination of different perspectives related to health and health care of Native North Americans (within present boundaries of the U.S. and Canada) in relation to cultural, social, political, and economic aspects of changing historical context. Concurrently scheduled with course CM168P. S/U or letter grading.


M269P. Politics of Reproduction. (2 to 4) (Same as Psychiatry M280.) Seminar, three hours. Examination of various cultural contexts of health and illness constructed and enacted in everyday activities, shapes human reproductive behavior. Case materials from diverse cultures illuminate how competing interests within households, communities, states, and institutions influence reproductive arrangements in society. Letter grading.

C269R. Repatriation of Native American Human Remains and Cultural Objects. (4) Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws regulating human remains and cultural objects to them. Examination of this phenomenon. Concurrently scheduled with course C169R. Letter grading.

Regional Cultures

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

M272. Indians of South America. (4) (Same as Latin American Studies M250A.) Lecture, three hours. Survey of literature and research topics related to indigenous cultures of South America. May be repeated for credit. S/U or letter grading.

273. Cultures of the Middle East. (4) Seminar, three hours. Survey of literature and problems of various cultures of the Middle East. S/U or letter grading.

M276. Japan in Age of Empire. (4) (Same as East Asian Languages M292 and History M286.) Seminar, three hours. Designed for graduate students. Since the 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.

277. Anthropology of China. (4) Seminar, three hours. Designed for graduate students. Survey of selected literature and current developments in field of Chinese social-cultural anthropology. Main topics include family and kinship, interpersonal relations, social changes, local control of state, rituals and beliefs, popular culture, consumerism, and cultural globalization. S/U or letter grading.

History, Theory, and Method

281. Selected Topics in History of Anthropology. (4) Lecture, three hours. Particular problems in history of anthropology as dictated by interests of students and faculty. May be repeated for credit. S/U or letter grading.

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

283. Formal Methods of Data Analysis in Anthropology. (4) Seminar, three hours. Current topics and issues related to formal analysis of data and presentation of cultural constructs: formal models of kinship terminologies, structural models of cognitive systems, graph theoretic models of networks, models of decision making, hierarchical information systems, stability in complex adaptive systems. S/U or letter grading.

M284. Qualitative Research Methodology. (4) (Same as Community Health Sciences M216.) Discussion, three hours; laboratory, one hour. Intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to health care. Letter grading.

285. Schools, Domains, and Strategies in World Archaeology. (4) Seminar, three hours. Comparative examination of schools of world archaeology, contrasting their respective databases, research strategies, and relationships to allied intellectual disciplines. Archaeologists from all departments are welcome, as are students interested in history or philosophy of science. Letter grading.

286P. Selected Topics in Anthropological/Archaeological Theory. (4) Seminar, three hours. Designed for graduate students. Variables 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 intermediate societies, materialist/idealist debates, urbanism, and exchange systems. May be repeated for credit. S/U or letter grading.

286P. Selected Topics in Computer Simulation and Modeling. (4) Lecture, three hours. Requisite: course 180. Applications of computer simulations and/or models to specific problem areas of interest to anthropologists. Problem areas rotate with each offering and include cognitive ecological, demographic evolutionary, and other theoretical foci. S/U or letter grading.

287. Poststructural Theories. (4) Seminar, three hours. Designed for graduate students. Examination of development and application of poststructural theories in anthropology by exploring interdisciplinary connections as they concern the concept of culture, narrative, ethnographic writing, reflexivity, politics of representation, historicity, and study of the self, identity, and the body. S/U or letter grading.

287P. Anthropology and Colonialism. (4) Lecture, three hours. Designed for graduate students. Exploration of multifaceted nature of colonialism and its cultural manifestations in a variety of geographical areas. Reconsideration of history of anthropology for, as Talal Asad argues, “anthropology emerged as a distinctive discipline at the beginning of the colonial era.” S/U or letter grading.

M287Q. Native American Historical Demography. (4) (Same as History M260Q.) Lecture, two hours; discussion, one hour. Examination of population history of Native Americans north of Mexico prior to and following contacts with Europeans, Africans, and others, circa 1492. Emphasis on cross-cultural patterns of Native Americans and other Native Americans, their decline following European contact, and their recent resurgence. Letter grading.
CM289A-CM289B. Theoretical Behavioral Ecology. (4) (Same as Organismic Biology CM289A-CM289B.) Lecture, three hours. Preparation: one upper-division introduction to behavioral ecology course, one university-level mathematics course (preferably calculus or probability and statistics). Course CM289A is requisite to CM289B. Students expected to do simple algebra, elementary calculus, and probability. A rich body of mathematical theory describing the evolution of animal behavior exists. Introduction to this body of theory at a pace and mathematical level that allows students to grasp this information. Within each area of theory (e.g., kin selection, optimal foraging theory, etc.), presentation of basic corpus of models so that students understand assumptions that underlie the models, and how main results are derived. Presentations supplemented by a survey of results printed in the literature, especially those derived using more advanced methods. Concurrently scheduled with courses CM189A-CM189B. Letter grading.

292. Making Oral Presentations. (4) Lecture/student presentations, two hours; discussion, one hour. Designed for graduate students. How to organize and present seminar reports, papers at scholarly conferences, and lectures to professional audiences. Opportunity for students to develop their speaking skills through actual practice in workshop atmosphere of mutual support and constructive criticism. S/U grading.

297. Selected Topics in Anthropology. (2 to 4) 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 a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Teaching Anthropology. (2 to 4) Seminar/ workshop, three hours. Designed for graduate students. Required of all new teaching assistants. Workshop/seminar in teaching techniques, including evaluation of each student's own performance as a 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 M.A. S/U grading.

501. Cooperative Program. (2 to 6) 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.


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

APPLIED LINGUISTICS AND TEACHING ENGLISH AS A SECOND LANGUAGE

College of Letters and Science

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Marianne Celce-Murcia, Ph.D.
Evelyn R. Hatch, Ph.D.
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Lecturers
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Janet Goodwin, M.A.
Christine Holten, M.A.
Linda Jensen, M.A.

Scope and Objectives

UCLA is a dynamic place to study applied linguistics. The Department of Applied Linguistics and Teaching English as a Second Language offers a Ph.D. in Applied Linguistics and a Master of Arts in Applied Linguistics and Teaching English as a Second Language. Three areas have been identified as integral to applied linguistics: language acquisition, language assessment, and discourse and grammar analysis. Program participants are encouraged to study themes within these areas from a variety of perspectives.

Departmental faculty members, as well as professors in Anthropology, East Asian Languages and Cultures, Education, Linguistics, Neurobiology, Psychology, and Sociology, among others, represent a wide range of expertise and experience in language-related research. Their guidance and collaboration with students result in substantial research findings in the areas of specialization within the program, and their participation reinforces the interdisciplinary nature of applied linguistics research. Graduates pursue academic and professional careers at the highest level of service and inquiry.

The goal of the Ph.D. program in Applied Linguistics is to prepare students to apply relevant elements of linguistics, ethnography, psycholinguistics, and sociolinguistics to the investigation of language-related problems and issues in the everyday world. This is to be achieved by providing students with a broad background of information and the investigatory skills needed for teaching at the university level, program planning, and, effective quantitative and qualitative research. The program is designed to encourage the mentorship relationship between students and faculty, as students are assigned a faculty adviser with whom they work throughout the program.

The M.A. program in Applied Linguistics and Teaching English as a Second Language (TESL) is designed as a first step in a research career in applied linguistics. It provides both breadth of knowledge in several areas of applied linguistics and the specialized knowledge and skills needed to plan and conduct research in one of the three areas of specialization.

Teacher education is no longer the main focus of the department; however, the department offers opportunities to students interested in pursuing this area as part of their academic program. Elective courses build on existing knowledge acquired in the required coursework in applied linguistics, and thus provide students with guidance in applying theoretical constructs to real-world classroom settings where language is taught and used. Language education skills provide graduate students with a secure means of financial support during their graduate program, and these skills may open doors to professional opportunities in academic and private sectors once students have completed their degree program. As part of the M.A. and Ph.D. programs, students may complete additional coursework to obtain the graduate-level Certificate in Teaching English as a Second Language.

Language Acquisition

Language acquisition research seeks to (1) describe interlanguage systems, (2) examine underlying cognitive mechanisms that could account for these systems, (3) examine the social, affective, and neurobiological factors that influence second language development, and (4) explore the effect of instruction on the process. Additional areas of inquiry include comparisons between native and nonnative linguistic systems and how speakers use them in natural discourse, and explanations for variables success in second language acquisition in terms of the neural underpinnings of language as well as the neural basis for perception, attention, memory, and emotion.

Language Assessment

Language assessment is concerned with the empirical investigation of theoretical questions on the one hand, and with providing useful
tools for assessment in applied linguistics on the other. Language testing research has as its goals the formulation and empirical investigation of theories of language test performance and the demonstration of the ways in which performance on language tests is related to communicative language use in its widest sense.

Discourse and Grammar Analysis
Discourse and grammar analysis is concerned with how language users produce and interpret language in context. Discourse analysts research the linguistic structures of speech acts, conversational sequences, speech activities, oral and literate registers, and stance (among other constructs) and seek to relate these constructs to social and cultural norms, preferences, and expectations. The field articulates how lexicogrammar and discourse systematically vary across social situations and at the same time help to define those situations.

A limited number of teaching assistantships are available to qualified M.A. and Ph.D. students. For information and applications, write to the Academic Coordinator, ESL Service Courses, 3300 Rolfe Hall, UCLA, Box 951531, Los Angeles, CA 90095-1531.

Undergraduate Study

Language, Interaction, and Culture Minor

The Language, Interaction, and Culture minor is designed to train students in the naturalistic study of discourse in everyday interaction.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 80 quarter units, and file a petition with the minor adviser, 3300A Rolfe Hall, (310) 825-4631.

Required Lower Division Courses (8 units):
- Two courses from the following, with each course from a different group:
  - group 1 — Anthropology 33 or 34; group 2 — Sociology 3 or 24; group 3 — Linguistics 1 or 2 or 20.

Required Upper Division Courses (28 units):
- Applied Linguistics and Teaching English as a Second Language M194 and six courses from the following, with at least one course from each group:

No more than two upper division elective courses may be applied toward both the students’ majors and this minor. All minor courses must be taken for letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Teaching English as a Second or Foreign Language Minor

The Teaching English as a Second or Foreign Language minor provides students with an overview of current second language pedagogical theories and practices; the experience of observing the second language acquisition process both in and out of the classroom; a supervised practicum experience in a variety of second language classroom settings; and an opportunity to reflect on the interaction of theory and practice in the teaching of English as a second or foreign language.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 80 quarter units, and file a petition with the minor adviser, 3300A Rolfe Hall, (310) 825-4631.

Required Lower Division Course (4 units): Linguistics 20 with a grade of C or better.

Required Upper Division Courses (28 units):
- (1) Three pedagogical foundation courses from Applied Linguistics and Teaching English as a Second Language 101 or 101W or C110, C116, C118; (2) a minimum of two pedagogical skill courses from C111, C112, C113, C115, C117; (3) a maximum of two courses in language and/or educational issues from English 121, English Composition 120A, 120B, 120C, 132C, Linguistics M10, C130, C140, 175. Students may complete all requirements for the minor by taking courses in items 1 and 2 above.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements, 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 the minor adviser before enrolling in any courses for the minor.

All minor courses must be taken for a letter grade, with a minimum grade of C (2.0) in each and an overall C average. Successful completion of the minor is indicated on the transcript and diploma.

English as a Second Language

English as a second language (ESL) courses are only for students whose native language is not English. Placement in these courses is established on the basis of the UCLA English as a Second Language Placement Examination (ESLPE). The ESLPE is required of all entering UCLA students whose first language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement. 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 ESLPE.

The following nonnative-speaking students are exempt from the ESLPE: (1) first-year undergraduate students exempted based on their performance on the Subject A Examination (see Subject A in the Undergraduate Study section of this catalog), (2) undergraduate transfer students with grades of B or better in the English Composition 3 and English 4W equivalent courses at their transfer institutions (see the Undergraduate Study section of this catalog), and (3) graduate students who hold a bachelor’s or higher degree from a university in a country where the official language is English and in which English is the spoken tongue and the medium of instruction (see International Applicants in the Graduate Study section of this catalog).

All other students must sit for the ESLPE and may be required to complete one or more ESL courses to satisfy the ESL requirement. Failure to sit for the ESLPE results in a hold on student records.

Undergraduate students may take the ESLPE once only. Graduate students who believe that their initial ESLPE score is not reflective of their English language proficiency due to having recently arrived in the U.S. may sit for the examination a second time in the subsequent term only (retaking the examination in the same term is not counted as a valid result). In cases where students retake the examination in their second term of study, the most recent examination score is held to be valid. Unauthorized retakes result in an invalid examination score.

Results of the ESLPE are used to determine placement into the required sequence of ESL courses or exemption from the ESL requirement. If held for the ESL requirement, students must begin taking courses during their first term in residence at UCLA and must complete the courses in sequence. The required sequence for undergraduates is English as a Second Language 33A, 33B, 33C, and 35; each course must be passed with a grade of C or better (C– or a Passed grade is not acceptable). The required sequence for graduate students is English as a Second Language 33A, 33B, and 33C; each course 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. If students do not achieve a minimum score on the placement examination, they may be required to spend a term studying elementary English exclusively, through UCLA Extension, before retaking the ESLPE and continuing through the appropriate sequence of courses at UCLA.

College of Letters and Science undergraduates may satisfy the English Composition requirement by completing course 36 with a grade of C or better (C– or a Passed grade is not acceptable). Admission into course 36 is determined by completion of course 35 with a passing grade or proficiency demonstrated on the ELSPE.
Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gradnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

Applied Linguistics

Graduate Courses
501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA program 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. (4 to 8) Tutorial, to be arranged. Preparation: complete of at least six courses of the 32-unit requirement for Ph.D. May be repeated for credit. S/U or letter grading.

597. Preparation for Ph.D. Candidacy Examination. (4 to 8) Tutorial, to be arranged. Preparation: advancement to Ph.D. candidacy. Required of all Ph.D. candidates each term they are registered and engaged in dissertation preparation. May be repeated for credit but may not be applied toward Ph.D. course requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (4 to 16) Tutorial, to be arranged. Preparation: advancement to Ph.D. candidacy. Required of all Ph.D. candidates each term they are registered and engaged in dissertation preparation. May be repeated for credit.

Applied Linguistics and Teaching English as a Second Language
Upper Division Courses
100. Discourse and Society. (4) Lecture, four hours; discussion, two hours. Important contemporary perspectives for study of language in its social and cultural matrix. Topics include conversational organization, narrative, repair and grammatical organization, language in cultural settings, language socialization, and language impairment and institutional discourse. Focus on analysis of audio and video recordings of talk in a variety of natural settings. P/NP or letter grading.

101W. Introduction to Language Learning and Language Teaching. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or SH. Not open for credit to students with credit for course 101W. 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 Letters and Science Writing II requirement. Letter grading.


C111. Writing for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101 or C110. Survey of important theoretical and methodological issues related to second/foreign language written discourse and composition for second language writers, including critical examination of classroom research and overview of issues in evaluating and responding to written text. Concurrently scheduled with course C211. P/NP or letter grading.

C112. Reading for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101 or C110. Survey of important theoretical and methodological issues related to second/foreign language reading, including critical examination of reading research and evaluation of research paradigms and classroom materials. Concurrently scheduled with course C212. P/NP or letter grading.


C115. Media for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101 or C110. Rationale and pedagogical application for using media equipment in a variety of forms as a visible second/foreign language classroom. Training in standard classroom media equipment operation, basic materials preparation, and production techniques, and review of published materials and focus on their application to second/foreign language instruction. Concurrently scheduled with course C215. P/NP or letter grading.


C117. Literature in Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101 or C110. Survey of important theoretical and methodological issues related to teaching literature to students in ESL/ELF settings and examination of appropriate classroom materials. Strong emphasis on cultural basis for literature. Concurrently scheduled with course C217. P/NP or letter grading.

C118. Language Teaching Practicum. (4) Seminar, four hours. Requisites: courses 101 or 1110, 1116. Theoretical and practical concerns regarding second language teaching with emphasis on teaching experience and grounding of solutions to problems faced in current research in language education and language pedagogy. Concurrently scheduled with course C218. P/NP grading.


121. Language Learning and Immigrant Experience. (4) Seminar, four hours. Exploration of value and relevance of linguistic anthropological, ethnomethodological, sociocultural, and sociolinguistic approaches to study of immigration and second language acquisition. Readings from language learning memoir provide literary account of immigrant experience which illustrates intimate relationships between language and culture in second language learning. Letter grading.

M125. Language Socialization. (4) Formerly numbered 125.) (Same as Anthropology M148E.) Seminar, four hours. Exploration of process of socialization through language, and socialization to use language across life span, across communities of practice within a single society, and across different ethnic and sociocultural contexts. Examines socialization of ways in which verbal interaction between novices and experts is structured linguistically and culturally. Letter grading.


M161. Talk and the Body. (4) (Formerly numbered 161.) (Same as Anthropology M148 and Communication Studies M123.) Seminar, four hours. Relationship between language and human body raises a host of interesting topics. New approaches to phenomena such as embodiment become possible when the body is analyzed, not as an isolated part, but as a visible agent whose talk and action are lodged within both processes of human interaction and rich settings where people pursue courses of action that count in their social context. Letter grading.

170. Field Methods in Discourse and Society. (4) Seminar, four hours. Ethnographic approaches to recording and analyzing communicative events and practices in their sociocultural context, involving student-initiated fieldwork in community settings. Emphasis on hands-on activities within theoretical frameworks that consider language as a social and cultural practice. Letter grading.

M184. Senior Seminar: Language, Interaction, and Culture. (4) (Same as Anthropology M194 and Sociology M194.) Seminar, four hours. Limited to seniors in Language, Interaction, and Culture minor, Capstone course. Students carry out and present empirical research project that integrates methodologies and perspectives of at least two of the disciplinary areas (anthropology, applied linguistics, sociology) covered in course C292. Letter grading.

199. Individual Special Studies in Applied Linguistics. (4) Tutorial, 10 to 12 hours. Independent studies course for undergraduate students who desire more advanced or specialized treatment of issues in applied linguistics and teaching English as a second/foreign language beyond those covered in current course offerings. May be repeated for credit. See graduate student adviser for course contract. Letter grading.
Graduate Courses


202. Foundations of Language Acquisition. (4) Seminar, four hours. Requisite: Linguistics 20. Introduction to theoretical and empirical research in language acquisition and second language acquisition. Linguistic nature of learners’ interlanguage systems and underlying cognitive mechanisms posited to explain them, as well as various social, affective, and neurological factors which affect ultimate success of learners. Letter grading.


M207. Ethnography of Communication. (4) (Same as Anthropology M232.) Lecture, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationship of ethnography of communication to such disciplines as anthropology, linguistics, and sociology. Topical foci include style and strategy, speech variation, attitudes toward non-native speech genres, languages and ethnicity, and nonverbal communication behavior. S/U or letter grading.


C211. Writing for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course C210. Survey of important theoretical and methodological issues related to second and foreign language discourse and composition for second language writers, including critical examination of classroom research and overview of issues in evaluating and responding to written text. Concurrently scheduled with course C111. Additional assignments required of graduate students. S/U or letter grading.


C213. Phonetics for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: Linguistics 20. Examination of phonological structure of contemporary American English, with emphasis on appropriate teaching techniques in ESL/EFL settings, including critical examination of classroom materials and overview of methods of evaluating student production. Concurrently scheduled with course C113. Additional assignments required of graduate students, S/U or letter grading.

214. Materials Development for Language Educa tion. (4) Seminar, four hours. Preparation of an original set of language teaching materials geared to needs of a specified group of learners. Revisions of first drafts and evaluation of one’s own work and that of one’s peers. Introduction to process of publishing language teaching materials. S/U or letter grading.


222. Discourse-Centered Language Learning. (4) Requisite: course 202. Case-study and project-based research seminar on classroom language learning with authentic discourse input (usually in form of video and audio recordings of natural spoken discourse). Development of theoretical and technical tools for determining what can be learned from such recordings and how this learning might be facilitated, based on current second language acquisition research.

223. Topics in Psycholinguistics. (4) Requisite: course 202. Detailed examination of specialized topics in psycholinguistics. Topics vary from year to year and may include language and cognitive science, types and theories of bilingualism, learning theories and their influence on language teaching. May be repeated for credit with topic change.

M224. Language Socialization. (4) (Same as Anthropology M248.) Seminar, four hours. Requisite: course M206. Exploration of process of socialization through language and socialization to use language across the life span, across communities of practice within a single society, and across different ethnic and socioeconomic groups. Ways in which verbal interaction between novices and experts is structured linguistically and culturally. May be repeated for credit with topic change.

230. Advanced Seminar: Interlanguage Analysis. (4) Seminar, four hours. Requisite: course 220. Analysis of interlanguage from various points of view (e.g., topic-comment structure, tense, aspect, modality, thematic structure of utterances), with aim of understanding how interlanguage is organized. Original research projects. May be repeated for credit with topic change.

231. Crosslinguistic Topics in Language Acquisition. (4) Requisite: course 220. Advanced seminar on language acquisition in which a particular linguistics topic (e.g., development of tense/aspect, reference, subordination, agreement) is pursued from crosslinguistic and cross-disciplinary perspectives. Focus on language-specific vs. universal (i.e., crosslinguistically valid) mechanisms of language development. May be repeated for credit with topic change.

238. Neurobiology of Language and Learning Research Laboratory. (4) Laboratory, four hours; fieldwork/research, eight hours. Research in neurobiology of language and learning, with focus on critical reading of relevant publications. Students must work together in small groups and produce a final project, such as thesis, dissertation proposal, qualifying paper, dissertation research paper, or grant proposal. May be repeated for credit with topic change. S/U or letter grading.


241. Analysis and Use of Language Assessment Data. (4) Seminar, four hours. Requisite: course C204. Collection, analysis, and use of data from language assessment procedures. Topics include collecting and Redback, describing test data, qualitative and quantitative data reduction techniques, item analysis and approaches to estimation of reliability and validity of test data, and the relationship between cognitive, psychological, and educational theories and test design.
242. Experimental Design and Statistics for Applied Linguistics. (4) Seminar, four hours. Requisite: courses C204, M206. Specialized topics of interest to graduate students in applied linguistics, with focus on design and interpretation of research projects in the field. Exploration of issues in both qualitative and quantitative study design, interpretation of findings, and presentation of results. Emphasis varies according to current theoretical methodology in the field. Project required. S/U or letter grading.

249. Current Issues in Language Assessment. (4) Seminar, four hours. Requisite: course C204. Designed to explore current issues in language assessment from both theoretical and practical perspectives and to provide actual experience in addressing a current issue. Specific topics vary according to trends in the field. May be repeated for credit with topic change. S/U or letter grading.

250. Advanced Seminar: Language Assessment. (4) Seminar, four hours. Requisites: courses C204, M206. Designed to cover application of a technical issue such as reliability, validation, criterion-referenced assessment, generalizability theory, item-response theory, or program evaluation to language assessment in depth. Specific topics vary. Project required. May be repeated for credit with topic change. S/U or letter grading.

258. Assessment Laboratory. (4) Collaborative coursework, with focus on specific theoretical and applied issues in current and innovative language assessment procedures for use in real-world settings. Specific projects determined by research being conducted by the working group in language assessment. Activities include designing and developing measurement instruments, gathering and analyzing data, and interpreting and reporting results. May be repeated for credit. S/U or letter grading.

260. Discourse Analysis Laboratory. (4) Seminar, four hours. Requisite: course M206 or M207. In-depth analysis of discourse practices, including quotation, requests, and directives, interaction and grammar, repair, and narrative. Theoretical perspectives include conversational analysis, functional linguistics, and anthropological linguistics. Letter grading.

263. Crosslinguistic Topics in Functional Grammar I: Typology. (4) Seminar, four hours. Survey of a particular linguistic area from typological perspective within functional grammar framework. Topics include tense/mood/aspect, nominal reference, word order. May be repeated for credit with topic change. S/U or letter grading.


265. Topics in Functional Grammar. (4) Requisite: course 201. Specialized topics in functional grammar of interest to graduate students in applied linguistics. Emphasis varies according to current topics of theoretical importance in the field, such as voice, nominal reference, and word order. May be repeated for credit with topic change.

266. Topics in Semantics and Pragmatics. (4) (Same as Anthropology M247.) Requisite: course 201. 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.

268. Crosslinguistic Research Laboratory. (4) Advanced procedures in data analysis in crosslinguistic research, including critical reading of relevant publications. Students must work toward a specific program-relevant product, such as thesis, dissertation proposal, article, paper, dissertation, research paper, or grant proposal. May be repeated for credit. S/U or letter grading.

269. Current Issues in Discourse Analysis. (4) Requisite: course M206. Specialized topics in discourse analysis of interest to graduate students in applied linguistics. Topics include conversational analysis, functional linguistics, and anthropological linguistics. Letter grading. May be repeated for credit with topic change.

270A-M270B. Ethnographic Methods in Discourse Analysis I & II. (4-4) (Same as Anthropology M249A-M249B.) Two-term sequence on ethnographic approaches to recording and analyzing communicative events and practices in their sociocultural context, including student-elicited fieldwork in a community setting. Emphasis on hands-on activities within theoretical frameworks that consider language as a social and cultural practice. S/U or letter grading. M270A, Seminar, four hours. Requisite: course 260 or Anthropology M242 or Sociology C244A. Devoted to skills related to collecting socially and culturally meaningful data. Letter grading. M270B, Lecture, four hours. Requisite: course M270A. Devoted to production of ethnographic analysis, including how to present an analysis in form of a conference talk and how to develop an analysis into a grant or dissertation proposal. S/U or letter grading.

M270P. Ethnographic Technologies Laboratory I. (4) (Same as Anthropology M249P.) Corequisite: course M270A or Anthropology M249A. Hands-on mentorship in entering a community, obtaining informed consent, interviewing, and video-recording verbal interaction. S/U grading.

M270Q. Ethnographic Technologies Laboratory II. (4) (Same as Anthropology M249Q.) Corequisite: course M270B or Anthropology M249B. Hands-on mentorship in entering a community, incorporating video frame grabs into transcript and analysis of verbal interaction, writing a grant proposal, and assembling a conference presentation. S/U grading.

271. Advanced Seminar: Cohesion Analysis of English Structure. (4) Requisite: course C216. Investigation in depth of selected linguistic features of oral and written texts that go beyond sentence level and thus signal cohesion. Study of structures to determine their function in a variety of English texts representing several discourse types.

272. Grammar and Discourse. (4) (Same as Anthropology M246.) Requisite: course 201. Survey of grammar- and discourse-based approaches to study of language as meaningful form. Topics include grammatical and indexical categories, referential and social identity, metalinguistic remarks, semantic and pragmatical, markedness, universals, cultural and cognitive implications of language structure and use. S/U or letter grading.

273. Grammar and Discourse Practicum. (4) (Same as Anthropology M246B.) Requisite: course M272. Survey of advanced topics in grammar and discourse, including predicates, arguments and grammatical relations, noun phrase categories, case marking, verbal categories, topic marking devices, register and speech varieties, reported speech, genre and text structure in discourse. Presentation and analysis of data from range of languages. S/U or letter grading.

274. Advanced Seminar: Contextual Analysis of English Structure. (4) Requisite: course C216. Examination of selected words and/or structures in oral and written texts to determine when and why they occur. Beginning with frequency and distribution of the form(s), exploration of meaning and function of the form(s).

278. Discourse Laboratory. (4) Requisites: courses M206, M260. Techniques of data analysis courses. Designed for applied linguistics Ph.D. students. Advanced procedures in data analysis in the field of discourse analysis, including development of a large-scale research project and analysis of current research. May be repeated for credit. S/U or letter grading.

291. Current Issues in Applied Linguistics. (4) Specialized topics in applied linguistics of current relevance in two or more of the following areas: language acquisition, applied linguistics, language assessment, and discourse analysis/functional grammar, and of interest to students in applied linguistics and TESL. Emphasis varies according to current topics of theoretical concern in the field. May be repeated for credit with topic change. S/U or letter grading.


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

400. Applied Linguistics and TESL: M.A. Colloquium. (4) Discussion, four hours. M.A. candidates present and defend results of their thesis research. Required of all candidates but may not be applied toward M.A. degree requirements. Candidates for Ph.D. in Applied Linguistics may also use this course to report on their dissertations. S/U grading.

495. Training and Supervision of Teaching Assistants. (2) Seminar, two or more hours. Preparation: appointment as a teaching assistant. Orientation, preparation, and supervision of graduate students who have responsibility for teaching ESL courses at UCLA. Syllabus revision and materials preparation. May not be applied toward degree requirements for M.A. or certificate in TESL or Ph.D. in Applied Linguistics. S/U grading.

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

596. Directed Individual Study. (4) Tutorial, 10 to 12 hours. Independent studies course for graduate students who desire more advanced or specialized treatment of issues in applied linguistics and/or teaching English as a second/foreign language beyond those covered in current course offerings. May be repeated for credit. See graduate student adviser for course contract. Letter grading.

598. M.A. Research and Thesis Preparation. (4 to 8) Limited to graduate students. Survey of research needs and thesis preparation. Includes optional section on experimental design and statistical methods in Fall Quarter. Credit (4 units) toward degree is allowed only once, but all M.A. candidates must enroll in course each term they are registered and engaged in thesis preparation. S/U grading.

Course List

Language Acquisition

Applied Linguistics and Teaching English as a Second Language

221. Experiential Seminar: Second Language Learning

222. Discourse-Centered Language Learning M224. Language Socialization

229. Current Issues in Language Acquisition

230. Advanced Seminar: Interlanguage Analysis

231. Crosslinguistic Topics in Language Acquisition

Education

217D. Language Development and Education

227B. Research on Cognitive and Language Characteristics of Exceptional Individuals
Discourse and Grammar Analysis

Anthropology
204. Core Seminar: Linguistic Anthropology
203. Survey of Current Syntactic Theories
202. Syntactic Theory
201. Morphological Theory
200. Phonological Theory
199. Lexical Theory

Applied Linguistics and Teaching English as a Second Language

260. Discourse Analysis
263. Crosscultural Linguistic Analysis
264. Crosscultural Linguistic Analysis
265. Linguistic and Intracultural Analysis
266. Linguistic and Intracultural Analysis
267. Linguistic and Intracultural Analysis

English
241. Studies in the Structure of the English Language
238. Linguistic Theory and Grammatical Description
222. Structure of Japanese
223. Structure of Japanese
224. Structure of Japanese
225. Structure of Japanese
226. Structure of Japanese
227. Structure of Japanese

Discourse Laboratory
204D. Discourse in Cross-Cultural Perspectives

Sociology
224A-C, 224B. Conversational Structures I, II
225. Talk and Social Institutions

Spanish (Spanish and Portuguese)
209. Dialectology
256A-256B. Studies in Spanish Linguistics
257. Studies in Dialectology

English as a Second Language

32. Conversation and Inference for Academic Purposes
31. Conversation and Inference for Academic Purposes
30. Conversation and Inference for Academic Purposes
29. Conversation and Inference for Academic Purposes
28. Conversation and Inference for Academic Purposes
27. Conversation and Inference for Academic Purposes
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3. Conversation and Inference for Academic Purposes
2. Conversation and Inference for Academic Purposes
1. Conversation and Inference for Academic Purposes

Lower Division Courses

Linguistics
213A. Grammatical Development
213B. Brain Bases for Language
223A. Language Development
223B. Neurolinguistics
254A. Topics in Linguistics
259A, 259B. Topics in Linguistics II: Proseminar
264A-264B-264C. Seminars: Special Topics in Linguistic Theory

Psychology
240A-240B. Developmental Psychology
241. Seminar: Developmental Psychology — Development of Language and Communication
260A-260B-260C. Proseminars: Cognitive Psychology
268B. Seminar: Human Information Processing — Human Learning and Memory
268D. Seminar: Human Information Processing — Language and Cognition

Language Assessment

Applied Linguistics and Teaching English as a Second Language
240. Design and Development of Language Assessment Procedures
241. Analysis and Use of Language Assessment Data
242. Experimental Design and Statistics for Applied Linguistics
249. Current Issues in Language Assessment
250. Advanced Seminar: Language Assessment
258. Assessment Laboratory

Education
200B. Survey Research Methods in Education
200C. Analysis of Survey Data in Education
202. Evaluation Theory
211A. Measurement in Education: Underlying Theory
211B. Item Response Theory
218. Measurement of Educational Achievement and Aptitude
219. Laboratory: Advanced Topics in Research Methodology
221. Computer Analyses of Empirical Data in Education
222C. Qualitative Data Reduction and Analysis
230A. Introduction to Research Design and Statistics
230B-230C. Linear Statistical Models in Social Science Research
230X. Applied Research Design and Statistics for Social Sciences
231A. Multivariate Analysis
231B. Factor Analysis
231C. Analysis of Categorical and Other Nonnormal Data
231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analysis
M231E. Statistical Analysis with Latent Variables

Psychology
250A, 250B. Advanced Psychological Statistics
252A. Multivariate Analysis
252B. Discrete Multivariate Analysis
253. Factor Analysis
254A. Psychological Scaling
254B. Cluster Analysis
255. Quantitative Aspects of Assessment
M257. Multivariate Analysis with Latent Variables
259. Quantitative Methods in Cognitive Psychology
251A, 251B. Topics in Phonetics and Phonology
252A, 252B. Topics in Syntax and Semantics
253A, 253B. Topics in Language Variation
254A, 254B. Topics in Linguistics
256A, 256B. Topics in Phonetics and Phonology II: Proseminar
257A, 257B. Topics in Syntax and Semantics II: Proseminar
258A, 258B. Topics in Language Variation II: Proseminar
259A, 259B. Topics in Linguistics II: Proseminar
263A-263B-263C. Seminars: Language Variation (only one of these may be applied toward the 32-unit requirement)

Sociology
C244A-C244B. Conversational Structures I, II
C258. Talk and Social Institutions
266. Selected Problems in Analysis of Conversation
267. Selected Problems in Communication

Spanish (Spanish and Portuguese)
209. Dialectology
256A-256B. Studies in Spanish Linguistics
257. Studies in Dialectology

33A. Low Intermediate English as a Second Language
33B. High Intermediate English as a Second Language
33C. Advanced English as a Second Language.
35. Developmental Composition for ESL Students. (5) Lecture, four hours. Requisite: course 33C (C or better) or proficiency demonstrated on English as a Second Language Placement Examination and/ or Subject A Examination. Developmental composition skills for ESL students, with focus on the writing process, grammatical structures key to clear and effective style. Preparation of assignments and practice with major forms of academic writing. Additional emphasis on academic reading skills. Completion of course with a grade of C or better satisfies Subject A requirement. Letter grading.

36. Intermediate Composition for ESL Students. (5) Lecture, four hours. Requisite: course 35 or proficiency demonstrated on English as a Second Language Placement Examination. Focus on academic argumentation and rhetorical techniques found in academic writing. Special attention to individual research, grammatical structures, and style. Satisfies Letters and Science Writing 1 requirement. Letter grading.

37. English Grammar and Style for Academic Purposes. (4) Lecture, four hours. Requisite: course 33B (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Review of form and use of common grammatical structures found in academic discourse. Analysis of stylistic function of certain structures and practice in self-editing strategies. P/NP (undergraduates), S/U (graduates), or letter grading.

38. Pronunciation: Stress and Intonation in English. (4) Lecture, four hours. Designed to help non-native speakers of English communicate effectively in social and academic settings. Focus on stresses and intonation and improve critical listening skills. Special focus on three important aspects of pronunciation: stress, rhythm, and intonation. P/NP (undergraduates), S/U (graduates), or letter grading.

39A. Intensive Language and Fluency Training for International Teaching Assistants. (4) Lecture, six hours. Recommended for individuals whose SPEAK score is 40 or below. Designed to aid international graduate students who wish to become teaching assistants, with a focus on development of general communicative competence and fluency in classroom discourse and improvement of accuracy of pronunciation and spoken grammar. Use of specialized pronunciation software in computer laboratory. P/NP (undergraduates), S/U (graduates), or letter grading.

39B. Communication Strategies for International Teaching Assistants. (4) Lecture, four hours. Recommended for individuals whose SPEAK score is 40 or 45. Designed to help non-native speakers of English communicate effectively as teaching assistants, with a focus on pronunciation strategies, classroom language fluency, and pronunciation accuracy. P/NP (undergraduates), S/U (graduates), or letter grading.

39C. Presentation and Discussion-Leading Skills for International Teaching Assistants. (4) Lecture, four hours. Recommended for individuals whose SPEAK score is 45 or above. Designed to help non-native speakers of English communicate effectively as teaching assistants. High-level problems of formal presentations, Activities include giving prepared speeches and leading and participating in discussions. Self and peer feedback provided. P/NP (undergraduates), S/U (graduates), or letter grading.

Upper Division Courses

106. Advanced Composition for ESL Students. (4) Requisite: course 36 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination, and an appropriate Composition Placement Test score. Focus on production of fully developed, stylistically sophisticated expository and argumentative essays based on complex academic structure and style.

107. Advanced Reading and Vocabulary for ESL Students. (4) Lecture, four hours. Requisite: course 33C or 35 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Instruction in and practice of academic reading skills using authentic university texts. Focus on improving reading rate and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP (undergraduates), S/U (graduates), or letter grading.

108. Pronunciation: Sound System of English. (4) Formerly numbered 103.) Lecture, four hours. Requisite: course 33B or 33C or 35 or proficiency demonstrated on English as a Second Language Placement Examination. Detailed and systematic study of the sounds of American English and way in which they are put together in connected speech, applied to improvement of student’s own accent. P/NP (undergraduates), S/U (graduates), or letter grading.

109. Introduction to Literature for ESL Students. (4) Lecture, four hours. Requisite: course 33C or 35 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Selections from English and American literature intended as so as to make full allowance for students’ linguistic and cultural problems and to contribute to increasing command of the English language. P/NP (undergraduates), S/U (graduates), or letter grading.

199. Special Studies in English as a Second Language. (4) Independent studies course for undergraduates and graduate students who desire more advanced or specialized treatment of issues in English as a second language beyond those covered in current courses. May be repeated for credit. See academic coordinator for course contract. P/NP (undergraduates), S/U (graduates), or letter grading.

ARCHAEOLOGY

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Scope and Objectives

The interdisciplinary program offers M.A. and Ph.D. degrees in Archaeology. It brings together interests and specialties represented by those departments offering courses in archaeology, as well as others offering courses relevant to archaeology.

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

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Archaeology but does not encourage applicants who seek only an M.A. degree.
Archaeology

Upper Division Course

C110. Archaeological Materials Identification and Characterization. (6) Lecture, three hours; laboratory, four hours. Laboratory-oriented introduction for archaeologists to identification and quantitative description of solid materials, especially metals, ceramics, and other inorganic and some organic substances. Concurrently scheduled with course C210. P/NP or letter grading.

Graduate Courses

M201A-M201B. Graduate Core Seminars: Archaeology. (6-6) (Same as Anthropology M201A-M201B.) Seminar, three hours. Required of all students. Seminar discussions based on carefully selected list of 30 to 40 major archaeology works. These compulsory core seminars provide students with foundation in breadth of knowledge required of a professional archaeologist. Archaeological historiography, survey of world archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and relevant interpretative strategies. May be repeated for credit with consent of adviser. S/U or letter grading.

M201C. Regional Analysis in Archaeology. (4) (Same as Anthropology M211.) Lecture, three hours. Survey of analytical methods used in archaeology to study prehistoric settlement systems. Specific issues include settlement distribution with respect to natural resources, settlement hierarchy, and patterns of exchange. Letter grading.

M205A. Selected Laboratory Topics in Archaeology. (4) (Formerly numbered M205L) (Same as Anthropology M212S.) Lecture, three hours. Designed for graduate students in archaeology or in other departments. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zooarchaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with topic change. S/U or letter grading.

M205B. Intensive Laboratory Training in Archaeology. (6) (Same as Anthropology M212T.) Lecture, three hours; laboratory, two hours minimum. Advanced laboratory training for graduate students with extended laboratory hours. Special laboratory-based topics, including but not limited to lithic analysis, ceramic analysis, zooarchaeology, and paleoethnobotany. May be repeated for credit with topic change. S/U or letter grading.


M214. Comparative Study of Ancient States. (4) (Same as Anthropology CM214S.) Lecture, three hours. Comparative anthropological study of first complex societies in the Near East, Mesoamerica, and the Andes, including early Egyptian, Urar, Teotihuacan, classic Maya, Wari, and Tiwanaku, with focus on political and economic structures of these societies and on causes of state development and collapse. May be repeated for credit with topic change. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U grading.

220. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Open to undergraduates with consent of instructor. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core faculty of program or special visiting scholars. May be repeated for credit with topic change. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U grading.

259. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Ancient Near East M265.) Lecture, two hours. Theoretical understanding of depositional processes ("lows") which lead to site formation and of stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in the literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with the help of specialists. 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.

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.


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


Related Courses

Related courses, not listed individually, include regional geography, ancient and regional history, ethnography, folklore, history of technology, and the Earth sciences. Also recommended are the appropriate modern and ancient languages for the area of study. Most archaeology courses are taught in the various departments. The following is a list of such courses, by topic and department. Students are encouraged to examine the course listings of all departments for a truly interdisciplinary course of study.

Methodology and History

Ancient Near East (Near Eastern Languages)

261. Practical Field Archaeology

Anthropology

M115A-M115B. Historical Archaeology

115P. Archaeological Field Training

C115R. Strategy of Archaeology

117. Archaeological Laboratory Methods

C117P. Selected Laboratory Topics in Archaeology

117Q. Intensive Laboratory Training in Archaeology

121A. Primate Fossil Record

121B. Australopithecines

121C. Evolution of Genus Homo

132. Technology and Environment

138. Methods and Techniques of Ethnography

158. Hunting and Gathering Societies

180. Quantitative Methods in Anthropology

183. History of Archaeology

M186. Models and Modeling in Anthropology

210. Analytical Methods in Archaeological Studies

M211. Regional Analysis in Archaeology

217. Explanation of Societal Change

221A-221B. Fossil Evidence for Human Evolution

283. Formal Methods of Data Analysis in Anthropology

Art History

C203A-C203B. Museum Studies

265. Fieldwork in Archaeology

New World

Anthropology

113P. Archaeology of North America

113Q. Prehistory and Ethnography of California

113R. Southwestern Archaeology

114P. Ancient Civilizations of Western Middle America (Nahuatl Sphere)

114Q. Ancient Civilizations of Eastern Middle America (Maya Sphere)

114R. Ancient Civilizations of Andean South America

212P. Selected Topics in Hunter/Gatherer Archaeology

214. Selected Topics in Prehistoric Civilizations of the New World

215. Field Training in Archaeology

219. Complex Hunters/Gatherers in Theoretical Perspective

Art History

C117A. Pre-Columbian Art of Mexico

C117B. Pre-Columbian Art of the Maya

C117C. Pre-Columbian Art of the Andes

118A. Arts of Oceania

118D. Arts of Native North America

220. Oceanic, Pre-Columbian, African, and Native North American Art

Old World: Africa

Art History

118C. Arts of Sub-Saharan Africa

220. Oceanic, Pre-Columbian, African, and Native North American Art

History

M175A. Topics in African History: Prehistoric Africa — Technological and Cultural Traditions

197A-197O. Undergraduate Seminars

201A-201T. Topics in History

Old World: Europe

Anthropology

112. Old Stone Age Archaeology

213. Selected Topics in Old World Archaeology

Art History

M102A. Minoan Art and Archaeology

M102B. Mycenaean Art and Archaeology

M102C. Archaic Greek Art and Archaeology

M102D. Classical Greek Art and Archaeology

M102E. Hellenistic Greek Art and Archaeology

M102F. Etruscan Art

M102G. Roman Art and Archaeology

M102H. Late Roman Art

M102I-M102J. Classical Archaeology

221. Topics in Classical Art

223. Classical Art

Classics

M153A. Minoan Art and Archaeology

M153B. Mycenaean Art and Archaeology

M153C. Archaic Greek Art and Archaeology

M153D. Classical Greek Art and Archaeology

M153E. Hellenistic Greek Art and Archaeology

M153F. Etruscan Art

M153G. Roman Art and Archaeology

M153H. Late Roman Art

M153I-M153J-M153K. Classical Archaeology
ARCHITECTURE AND URBAN DESIGN

School of the Arts and Architecture

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Adjunct Professor
Alan Locke, M.Sc.

Adjunct Assistant Professor
Mark Lee, M.Arch.

Scope and Objectives

The Department of Architecture and Urban Design at UCLA offers four degree programs tailored to the needs of different groups of students: M.Arch. I, M.Arch. II, M.A., and Ph.D.

M.Arch. I is a three-year first professional degree program which is 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. M.Arch. I graduates normally pursue professional careers in architectural practice.

M.Arch. II is an advanced professional degree program for students who already hold a first professional degree in architecture. It provides opportunities for intensive concentration in a variety of areas of professional specialization. The M.A. and Ph.D. degree programs provide 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 preprofessional undergraduate degree and a professional graduate degree which, when earned sequentially, comprise an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Architecture and Urban Design offers Master of Architecture I (M.Arch. I) and Master of Architecture II (M.Arch. II) degrees, and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Architecture. A concurrent degree program (Architecture M.Arch./Urban Planning M.A.) is also offered.

Architecture and Urban Design

Lower Division Courses

88. Lower Division Seminar: Special Topics in Architecture and Urban Design. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in architecture and urban design approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

98. Psychology of Architecture. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement. Architecture is a discipline in which concerns embodied in designs are daunting, ranging from ensuring appropriate technical performance to determining functional suitability and maintaining aesthetic rigor. A less-explored aspect of architectural work is the emotional aspect of the process of design. Exploration of cognitive and emotional meaning of designs by several significant contemporary architects using one or more of their works as a basis for study. Letter grading.
Upper Division Courses

M190. Human Environment: Introduction to Architecture and Urban Planning. (4) (Same as Urban Planning M190.) Lecture, three hours; outside study, nine hours. Kinds of problems that arise in creating and maintaining an environment for urban activities, and approaches of architecture and urban planning in helping to cope with such problems. Complexities involved in giving expression to human needs and desires in provision of shelters and movement systems, to possibilities and limitations of technology and building forms, and to issues involved in relating the human-made to the natural environment. Students encouraged to comprehend major urban issues both as citizens and as potential technical experts.

CM191. Introduction to Sustainable Architecture and Community Planning. (4) (Formerly numbered C191.) (Same as Environment M153.) Lecture, three hours; outside study, nine hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable and sustainable use of resources, including materials, water, and land. Concurrently scheduled with course CM247A. Letter grading.

194A-194B. History of Architecture and Urban Design. (4-4) Lecture, three hours. Consideration of architectural and urban projects in relation to their theoretical, philosophical, and sociopolitical contexts, including issues of gender and diversity. 194A. Introduction to history of architecture and urban design from prehistory to age of mannerism. Discussion of world at large, analyzing synchronic architectural and urban solutions. 194B. Introduction to history of architecture and urban environments from Baroque period to the present.

M195. Living Vernacular. (4) (Same as World Arts and Cultures M130.) Lecture, three hours. Survey of array of spaces and places from a cross-cultural or comparative perspective and with a performance emphasis, which means focus on mutual interaction of human beings and their created environments. Emphasis on “common,” “ordinary,” “anomalous,” or “vernacular” environments, which are built and used by members of small-scale, “traditional,” and “transitional” communities around the world.

199. Special Studies. (2 to 8) Independent research or investigation on a selected topic to be arranged with a faculty member. May be repeated for credit.

Graduate Courses

M201. Theories of Architecture. (4) (Formerly numbered 201.) (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 the nature of speculative inquiry in an 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 microcomputer skills. Applications selected are commonly found in professional offices. Two- and three-dimensional representation (i.e., painting, drafting, multimedia, hypermedia, and modeling). Letter grading.

M225A-M225B-M225C. Fundamentals of Architectonics. (4-4-4) (Same as Design | Media Arts CM221, CM222, CM223.) Lecture, three hours; outside study, nine hours. Inquiry concerning architecture of spatial configurations from both a historical position and current environment. May be repeated for credit with consent of adviser. S/U or letter grading.

M225A. Proportion; M225B. Symmetry; M225C. Composition and Order.

M226A. Introduction to Computer-Aided Architectural Design, Two-Dimensional. (4) (Formerly numbered 226A.) (Same as Urban Planning M226A.) Lecture, three hours; laboratory, nine hours. Concepts of computer-aided drafting, including hardware, software, and networks; paint, draft, multimedia, DTP, and presentation programs; CAD in an office environment. Letter grading.

M226B. Introduction to Computer-Aided Architectural Design, Three-Dimensional. (4) (Formerly numbered 226B.) Lecture, three hours; laboratory, one hour. Concepts of three-dimensional solids; method of modeling; structure; file formats; modeling, rendering, and animation programs; video conference. Letter grading.

226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and techniques of computer visualization, including realistic rendering and animation.

M227A. Programming Computer Applications in Architecture and Urban Design. (4) (Same as Design | Media Arts CM241.) Lecture, three hours; outside study, nine hours. Requisite: course M227A. Survey of geometric and three-dimensional modeling, with emphasis on implementation of three-dimensional solids constructions and editing operations. Basic representations and operations on shapes and solids. May be repeated for credit with consent of adviser. S/U or letter grading.

M227C. User Interaction Techniques in Design. (4) (Same as Design | Media Arts CM243.) Lecture, three hours; outside study, nine hours. Requisite: course M227A or knowledge of C++ programming language. Programming techniques for implementing modern computer-user interfaces, specifically looking at issues relevant to building software tools for computer-aided problem solving in architecture and design. May be repeated for credit with consent of adviser. S/U or letter grading.

227D. Design and Building Models. (4) Lecture, three hours. Focus on methods of rapid prototyping, where new ideas can be tested and evaluated. Letter grading.

M291. Theory of Architectural Programming. (4) Lecture, three hours. Examination of Euro-American, East Asian, and Latin American architectural and urban projects in relation to their theoretical, philosophical, and sociopolitical contexts, including issues of gender and diversity. Development of a programming model for urban and architectural design, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable and sustainable use of resources, including materials, water, and land. Concurrently scheduled with course CM191. Letter grading.


M296. Proseminar: Critical Studies in Architectural History. (4) Seminar, three hours. Preparation for M.Arch. II students. Students may choose (through a lottery) from a number of different advanced topics focusing on special topics in architectural and urban design to be offered by faculty members. 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 studio courses 412, 413, 414 or M.Arch. II student. Students may choose (through a lottery) from a number of different advanced topics focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. S/U grading.

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studio courses 412, 413, 414 or M.Arch. II student. Students may choose (through a lottery) from a number of different advanced topics focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. S/U grading.

Architecture and Urban Design / 153

286A-286B. Ancient Architecture. (4-4) Lecture, three hours. Study of architectural developments from archaic Greece to the late Roman Empire. Examination of ancient building construction techniques whose appearance was determined by aesthetic, religious, social, political, urban, and technological factors.

288A-288B. Renaissance and Baroque Architecture. (4-4) Lecture, three hours. Examination of European architecture from the 15th to 17th century, with primary focus on developments in the Italian peninsula. Exploration of Renaissance structures contextually, exploring changing cultural and theoretical values as well as aesthetic characteristics.

289. Special Topics in Architecture and Urban Design. (2 to 4) Selected academic topics initiated by students, student teams, or faculty and directed by a faculty member. May be repeated for credit.

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.

292. Politics, Ideology, and Design. (Formerly numbered 292.) (Same as Urban Planning M292.) Lecture, three hours. Study of complex urban and political context of architectural and planning environments. Examination of theories and methodologies related to urbanism, urban design, and maintaining an environment for urban activities, effects of crowding and stress, personal space and territoriality.

296. Proseminar: Critical Studies in Architectural History. (4) Seminar, three hours. Orientation for Ph.D. students to tradition of architectural theory, scholarship, and research and to current research directions and questions, through intensive reading and critical discussion.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: personal employment as a teaching assistant, associate, or fellow. Teaching apprenticehip under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. 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 studio courses 412, 413, 414 or M.Arch. II student. Students may choose (through a lottery) from a number of different projects focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. S/U grading.
403A-403B-403C. Research Studios. (2-2-6) For courses 403A, 403B: seminar, three hours; outside study, three hours; for course 403C: studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studios (courses 412, 413, 414, 415) or Arch. II student. In-depth research project on one or more of 403A-403B; and advanced studio project (course 403C), with focus on number of different special topics in architecture and urban design. In Progress and letter 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 planning/architecture project for a client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; working with resident leaders at Los Angeles City public housing developments.

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

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

413. Building Design with Landscape Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 412. Introduction to theoretical and technical issues such as site planning, urban design, landscape design, building typology, building design and site planning 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 413. Designed for second-year graduate students. Introduction to issues such as programming and program manipulation, site planning, urban design, and integration of technical systems and architectural expression. Emphasis either on treatment in breadth of large-scale projects or exploration in depth and detail of smaller-scale projects. Students learn to integrate structure and environmental control and to present their ideas in graphic or model form. Letter grading.

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


436. Introduction to Building Construction. (2) Laboratory, two hours; outside study, four hours. Introduction to construction techniques. Study of physical principles and materials for making architecture through series of exercises and field trips. Letter grading.

437. Building Construction. (4) Laboratory, four hours; outside study, eight hours. Principles of structure and enclosure, with focus on production and materials research. Exploration of building elements for formal and functional properties; in addition, design development of project in previous studio may be developed in detail with integration of a range of technical systems. Letter grading.

441. Environmental Control Systems. (4) Design of mechanical systems necessary for functioning of large buildings: air handling, fire and life safety, plumbing, vertical and horizontal circulation, communication and electrical power distribution, analysis of interaction of these systems and their integrated effect on architectural form of a building.

442. Building Climatology. (4) Preparation: basic physics. Design of buildings which specifically respond to local climate; utilization of natural energies, human thermal comfort; sun motion and sun control devices; use of plant materials and landform to modify microclimate.


496. Special Projects in Architecture. (2 to 8) Projects initiated either by individual students or student teams and directed by a faculty member. May be repeated for credit.

497. Special Projects in Urban Design. (2 to 8) Projects initiated either by individual students or student teams and directed by a faculty member. May be repeated for credit.

498. Comprehensive Examination Seminar. (4) Seminar, three hours; outside study, nine hours. Seminar intended to begin process of developing independent proposal with related research and documentation that moves toward production of final document or book for each project. S/U grading.

501. Cooperative Program. (2 to 8) 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.


597. Preparation for Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) May be repeated for credit. S/U grading.


Barbara Drucker, M.F.A., Chair

Professors
John Baldessari, M.A.
Christopher L. Burden, M.F.A.
Barbara Drucker, M.F.A.
Roger Herman, M.F.A.
Mary Kelly, M.A.
Paul McCarthy, M.F.A.
Lari Pittman, M.F.A.
Charles Ray, M.F.A.
Nancy Rubins, M.F.A.
Adrian A. Saxe, B.F.A.
James Welling, M.F.A.
Patricia A. Wickman, M.F.A.

Professors Emeriti
Samuel Amato, B.F.A.
William J. Brice
Raymond B. Brown, M.A.
Elliot J. Elgart, M.F.A.
Robert F. Heinzeck, M.A.
Henry T. Hopkins, M.A.

Associate Professor
Catherine Opie, M.F.A.

Lecturer
Don Suggs, M.F.A.

Adjunct Assistant Professor
Juli Carson, Ph.D.

Scope and Objectives
The Department of Art offers professional art training which emphasizes experimentation and encourages students to draw from many disciplines in their creative process. The department provides a strong background in theory and criticism to support contemporary studio practice. Bachelor of Arts and Master of Fine Arts degrees are offered in painting and drawing, new genres, photography, sculpture, and ceramics. An interdisciplinary studio option is offered within the M.F.A. program. In addition, a Master of Arts degree is offered in critical and curatorial studies. 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 of its galleries such examples as may be selected.
Undergraduate Study

Art B.A.

Preparation for the Major


The Major

Required: A minimum of nine upper division courses, including Art 100 or 132, 150, six courses from at least four of the following studio areas: 130, 133, 137, 140, 145, 147, 148, one course from Art History 101A through C119D and C140A through C180C, and 16 units of art electives.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Arts (M.A.) and Master of Fine Arts (M.F.A.) degrees 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 a variety of media.

1B. Sculpture. (4) Studio, eight hours; five hours arranged. Introduction to conceptions and forms of contemporary sculpture to become familiar with tools and material to enable students to visually manifest their individual ideas. Presentation of work of contemporary artists.

11A. Painting. (4) Studio, eight hours; five hours arranged. Basics of painting: introduction to technical procedures, tools, and materials. Discussion of fundamental conceptual and formal concerns. P/NP or letter grading.

11B. Photography. (4) Studio, eight hours; five hours arranged. Fundamentals in technique, with emphasis on individual projects. Varied approaches, processes, and applications of the photographic medium within the 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 techniques and conceptual concerns in a variety of printmaking media as preparation for more focused study in particular media at upper division level. P/NP or letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Introduction to projects in installation, performance, video, film, intermedia, and other nontraditional media and processes. P/NP or letter grading.

11E. Ceramics. (4) Studio, eight hours; five hours arranged. Introduction to ceramic materials and processes, with emphasis on personal and cultural expression in ceramic media. Discussion of ceramics in contemporary artistic practice and social history of ceramic art. Letter grading.

31A. Modernism. (5) Formerly numbered 31L. 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 the U.S. Letter grading.

31B. Modernism. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Requisite for Art majors: course 31A. Continuation of impact of modernist ideas through mid-20th century, with focus primarily on work made from the 1920s to 1960s. Letter grading.

31C. Modernism. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Requisites for Art majors: courses 31A, 31B. Continuation of impact of modernist ideas through latter part of 20th century, including shift from modernist to postmodernist practices and theories, with focus on work made from the 1960s to the present. Letter grading.

Upper Division Courses

100. Issues in Contemporary Art. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Preparation: at least one course from 100 through 150. Introduction to principles of program planning and community engagement in relation to visual arts and work of art museums. Concurrently scheduled with course C282. Letter grading.

102. Advanced Perception and Social History of Ceramic Art. (4) Lecture, three hours; discussion, one hour; field trips, three hours. Preparation: at least one course from 100 through 150. Examination of temporary exhibition and its associated field of publications as an intertextual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. Concurrently scheduled with course C282. Letter grading.

103. Exhibition and System. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Introduction to principles of program planning and community engagement in relation to visual arts and work of art museums. Concurrently scheduled with course C282. Letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Requisite: course 1A. Drawing as both an individual expressive medium and as a means of visualization. May be repeated for a maximum of 16 units. Letter grading.

130. Advanced Drawing. (4) Studio, eight hours; five hours arranged. Requisite: course 1A. Drawing as both an individual expressive medium and as a means of visualization. May be repeated for a maximum of 20 units. Letter grading.


139. Advanced Sculpture. (4) Studio, eight hours; five hours arranged. Requisite: course 11E. Selected projects in photography and related media, concentrating on development of individual students' artwork. Studio emphasis with special topics in theory and critical analysis. May be repeated for a maximum of 16 units. Letter grading.

140. Advanced Printmaking. (4) Studio, eight hours; five hours arranged. Requisite: course 11C. Selected studies in fine printmaking, historical and contemporary: woodcut, etching and engraving, lithography, silk screen, mixed media. May be repeated for a maximum of 16 units. Letter grading.

145. Advanced Sculpture. (4) Studio, eight hours; five hours arranged. Requisite: course 11B. Selected studies in sculpture, historical and contemporary: modeling, carving, casting, welding, and other media; forms in space, including installations and non-studio pieces. May be repeated for a maximum of 16 units. Letter grading.

147. Advanced Photography. (4) Studio, eight hours; five hours arranged. Requisite: course 11B. Selected projects in photography and related media, concentrating on development of individual students' artwork. Studio emphasis with special topics in theory and critical analysis. May be repeated for a maximum of 16 units. Letter grading.

148. Advanced Ceramics. (4) Studio, eight hours; five hours arranged. Requisite: course 11E. Selected studies in ceramics, with emphasis on individualized creative exploration with materials and techniques introduced in course. Methods and processes to be selected from a range of possibilities, including hand-building and modeling, preparation and use of molds, slipcasting, and use of potter's wheel. May be repeated for a maximum of 16 units. Letter grading.

150. Senior Studio. (4) Studio, eight hours; five hours arranged. Limited to seniors. Advanced studio projects with emphasis on analysis and criticism of individual creative work and ideas. May be repeated once for credit. Letter grading.

C181. Exhibition and System. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Examination of temporary exhibition and its associated field of publications as an intertextual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. Concurrently scheduled with course C282. Letter grading.

C182. Exhibitions and Public Programs. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Introduction to principles of program planning and community engagement in relation to visual arts and work of art museums. Concurrently scheduled with course C282. Letter grading.

C183. Special Topics in Art. (2 or 4) Seminar, six hours (4-unit course). Preparation: at least one course from 100 through 150. Selected topics in art explored through variety of approaches which may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C283. Letter grading.

M186A. Beyond the Mexican Mural. Beginning Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186A and World Arts and Cultures M125A) Studio, lecture, six hours. Corequisite: course M186A. Investigation of muralism as a method of community education, development, and empowerment. Exploration of issues through development of a large-scale collaborative digitally created image and/or painting for placement in a community setting. Students research, design, and work with community participants. P/NP or letter grading.

M186AL-M186BL-M186CL. Beyond the Mexican Mural: Muralism and Community Laboratory. (2-2-2) (Same as Chicana and Chicano Studies M186AL-M186BL-M186CL and World Arts and Cultures M125AL-M125BL-M125CL) Laboratory, two hours. Preparation: Course M186AL is requisite to M186BL, which is requisite to M186CL. Mural and Digital Laboratory is an art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in a 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 painted and digitally generated murals to be placed in a community setting. P/NP or letter grading. Beginning: M186AL. Intermediate: M186BL. Advanced: M186CL.

M186B. Beyond the Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186B and World Arts and Cultures M125B) Studio, lecture, six hours. Corequisites: courses M186A, M186AL. Corequisite: course M186BL. Continuation of investigation of muralism as a method of community education, development, and empowerment. Exploration of issues through development of a large-scale collaborative digitally created image and/or painting for placement in a community setting. 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 the Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186C and World Arts and Cultures M125C.) Lecture/studio, six hours. Requisites: courses M186B, M186BL. Corequisites: course M186CCL. Continuation of investigation of muralism as a method of community education, development, and empowerment. Exploration of issues through development of a large-scale collaborative digitally created image and/or painting for placement in a community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. Prerequisite or letter grading.

M188. Whose Monument? Where: Course on Public Art. (4) (Same as Chicana and Chicano Studies M188 and World Arts and Cultures M126.) Lecture, four hours. Recommended corequisites: course M186A, M186B, or M186C. Examination of public monuments in the U.S. as a basis for cultural insight and critique of American values from perspective of an artist. Use of urban Los Angeles as textbook in urban space issues such as who is the “public,” what is “public space” at the end of the 20th century, what defines a neighborhood, and do different ethnic populations use public space differently. Prerequisite or letter grading.

M190. Chicana Art and Artists. (4) (Same as Chicana and Chicano Studies M189 and World Arts and Cultures M128.) Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

197. Honors Course. (4) Tutorial, to be arranged. Preparation: 3.0 grade-point average overall, 3.5 grade-point average in major. Limited to juniors/seniors. Individual studies for majors. May be repeated once for credit. Prerequisite or letter grading.

199. Special Studies in Art. (2 to 8) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to seniors. Individual studies for majors. May be taken for a maximum of 8 units. Prerequisite or letter grading.

Graduate Courses

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

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

273. Graduate Sculpture. (2 to 8) Studio, eight hours. Studies concentrating on development of individual students’ artwork. Studio emphasis with adjacent studies in theoretical and critical analysis. Specific attention to original, expressive, social, and humanitarian values of art. May be repeated for credit with consent of adviser.

275. New Genre. (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.

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.

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

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

280. Graduate Seminar: Art. (4) Discussion, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminism and psychoanalytic theory, commodification, and censorship. May be repeated for credit.

C281. Exhibition and System. (4) (Formerly numbered 281.) Seminar, four hours. Examination of temporary exhibition and its associated field of publications as an intertextual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. May be repeated for credit. Concurrently scheduled with course C181. Letter grading.

C282. Exhibitions and Public Programs. (4) (Formerly numbered 282.) Seminar, four hours. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. May be repeated for credit. Concurrently scheduled with course C182, Letter grading.

C283. Special Topics in Art. (2 or 4) (Formerly numbered 283.) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Selected topics in art explored through variety of approaches which may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C183. Letter grading.

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

485. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exploration of teaching pedagogy and classroom mechanics. Problems and practices of teaching art at college level, as well as role of teaching assistants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) 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 UBC. 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 M.A. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. May not be applied toward M.A. course requirements. May be repeated. S/U grading.

ART HISTORY

College of Letters and Science

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Lothar von Falkenhagen, Ph.D.
Cécile M. Whiting, Ph.D.
Joanna C. Woods-Marsden, Ph.D.

Professors Emeriti
Katharina Otto-Dorn, Ph.D.
Carlo Pedratti, M.A. (Armand Hammer Professor Emeritus of Leonardo Studies)
Anthony Vidler, Dipl.Arch.

Associate Professors
Irene A. Bierman, Ph.D.
Burglind Jungmann, Ph.D.
Zoe S. Strother, Ph.D.

Assistant Professors
Mieon Kwon, Ph.D.
Hui-Shu Lee, Ph.D.
Saloni Mathur, Ph.D.
Steven D. Nelson, Ph.D.
Charlene Villaseñor Black, Ph.D.

Lecturer
Jean S. Weisz, Ph.D., Senior Emerita

Scope and Objectives

The department offers programs leading to the Bachelor of Arts, Master of Arts, and Ph.D. degrees. It endorses an interdisciplinary and intercultural approach to art history of all periods and places. By thinking across current categories and boundaries and even critically interrogating art history itself, students are encouraged to question the canon, rethink the relationship between margins and centers, and practice a socially and politically responsible art history.

The rich and varied art resources available at UCLA and throughout Southern California offer students extraordinary opportunities to supplement the formal curriculum.

Undergraduate Study

Art History B.A.

Preparation for the Major

Required: Two courses from Art History 50, 51, 54, 57 and two courses from 55A, 55B, 56A, 56B. It is strongly recommended that these
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 195A and 195B with a grade 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 195A and 195B with a grade 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 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, have completed 45 units, and file a petition in 100 Dodd Hall. Students are advised to declare the minor early and meet with the student affairs officer (310-825-3480) to plan a coherent program.

**Required Lower Division Courses (8 units):**

- Art History C103A, C103B, World Arts and Cultures 185A, and a wide selection of courses from Art History 100, 101A, 101B.
- Twenty-four units, and file a petition in 100 Dodd Hall. Students are advised to declare the minor early and meet with the student affairs officer (310-825-3480) to plan a coherent program.

**Required Upper Division Courses (28 units):**

- Any upper division courses in the department and an overall GPA of 3.0 or better, and (3) complete courses 195A and 195B with a grade of A.

One course may be taken on a Passed/Not Passed basis; all other minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Museum Studies Minor**

The Museum Studies minor introduces undergraduate students to the history, theory, and practice of museums and museology through a group of linked and related courses from various disciplines in the College of Letters and Science and School of the Arts and Architecture. The program exposes students to museum studies as historically and currently practiced in the visual arts, in anthropology and ethnography, and in history and cultural studies more broadly. The minor complements and in part may serve as an introduction to the recently approved M.A. concentration in museum studies.

To enter the minor students must be in good academic standing (minimum 3.0 cumulative grade-point average), have completed 45 units at UCLA, and file a petition with the program adviser, 100 Dodd Hall, (310) 206-6905.

**Required Lower Division Courses (8 units):**

- Art History C103A, C103B, World Arts and Cultures 185A, and a wide selection of courses from Art History 100, 101A, 101B.

**Required Upper Division Courses (28 units):**

- Art History C103A, C103B, World Arts and Cultures 185A, 185B, and three elective courses selected from Art History 100, C103C, College of Letters and Science and School of the Arts and Architecture.

- Any upper division courses in the department and an overall GPA of 3.0 or better, and (3) complete courses 195A and 195B with a grade of A.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Art History.

Art History

Lower Division Courses

50. Ancient Art. (5) Lecture, three hours; quiz, one hour; museum field trips. Prehistoric, Egyptian, Mesopotamian, Aegean, Etruscan, and Roman art and architecture. P/NP or letter grading.

51. Medieval Art. (5) Lecture, three hours; quiz, two hours. Early Christian, Byzantine, Islamic, Carolingian, Ottoman, Romanesque, and Gothic art and architecture. P/NP or letter grading.

54. Modern Art. (5) Lecture, three hours; quiz, one hour; museum field trips. Social history of modern art from period of French Revolution to circa 1968. Artists and their works treated from perspective of sociopolitical and broad cultural developments. P/NP or letter grading.

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

55B. Introduction to Pre-Columbian Art. (5) Lecture, three hours; discussion, one hour; museum field trips. Survey of sequences of cultures that developed in area between (and including) Mexico and Peru from circa 1000 B.C. to the Conquest. P/NP or letter grading.

56A. Art of India and Southeast Asia. (5) Lecture, three hours; discussion, one hour; museum field trips. Discussion of selection of monuments and objects from Indian subcontinent and Southeast Asia using key historical, cultural, and religious concepts. Analysis of each monument or object in detail, with their relationships compared and contrasted. P/NP or letter grading.

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

57. Renaissance and Baroque Art and Ideology. (5) Lecture, three hours; discussion, one hour. Survey of Renaissance and baroque art and ideology to introduce students to basic tools of stylistic and iconographical analysis. Coverage of historical development of European art and architecture over a period of almost 500 years and exploration of ways in which those in religious and secular power used images to foster active critical engagement with museum institutions and exhibitions. P/NP or letter grading.

58A-58Z. Lower Division Seminars. (4 each) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in a specific term. P/NP or letter grading.

88A. Buddha’s Life and Teachings in Art, Texts, and Worship. (4) Development of Buddhist art in India through Buddha’s life and teachings, expressions of his art and texts, and ritual. Re-creation of Buddha’s life by analyzing art and reading Buddha’s texts of his life.

Upper Division Courses

100. Art Historical Theories and Methodologies. (4) Discussion, three hours. Requisites: three courses from 50 through 7. Critical examination of history of discipline of art history; with studies of various theoretical, critical, and methodological approaches to visual arts.

101A. Egyptian Art and Archaeology. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during the Predynastic period and Old Kingdom.

101B. Egyptian Art and Archaeology of the Middle and New Kingdoms. (4) Lecture, three hours. Requisite: course 50. Study of architecture, sculpture, painting, and minor arts during the Middle and New Kingdoms.

102A. Minoan Art and Archaeology. (4) Same as Classics M153A.) Lecture, three hours. Requisite: course 50 or Classics 10. Study of development of art and architecture in Minoan Crete from ca. 3000 to 1000 B.C. P/NP or letter grading.

102B. Mycenaean Art and Archaeology. (4) Same as Classics M153B.) Lecture, three hours. Requisite: course 50 or Classics 10. Study of development of art and architecture of Greek world from approximately 800 through 490 B.C. P/NP or letter grading.

102C. Classical Greek Art and Archaeology. (4) Same as Classics M153C.) Lecture, three hours. Requisite: course 50 or Classics 10. Study of development of art and architecture of Greek world from approximately 490 through 350 B.C. P/NP or letter grading.

102D. Hellenistic Greek Art and Archaeology. (4) Same as Classics M153E.) Lecture, three hours. Requisite: course 50 or Classics 10. Study of development of art and architecture of Greek world from middle of the 4th century B.C., including transmittal of Greek art forms to the Romans. P/NP or letter grading.

102F. Etruscan Art. (4) (Same as Classics M153F.) Lecture, three hours. Requisite: course 50 or Classics 20. Arts of Italic peninsula from ca. 1000 B.C. to the end of the Roman Republic. P/NP or letter grading.

102G. Roman Art and Archaeology. (4) Same as Classics M153G.) Lecture, three hours. Requisite: course 50 or Classics 20. Art and architecture of Rome and its Empire from ca. 300 B.C. to A.D. 300. P/NP or letter grading.

102H. Late Roman Art. (4) Same as Classics M153H.) Lecture, three hours. Requisite: courses 50, M102G. Art of Roman Empire from the 2nd through 4th century (A.D.), P/NP or letter grading.

102I-M102K. Classical Archaeology. (4-4-4) (Same as Classics M153I-M153J-M153K.) Lecture, three or four hours. Requisite: course 50 or Classics 10 or 20 or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Aegean, Greek, and Roman architecture, sculpture, and painting. P/NP or letter grading.

102J. Greco-Roman Architecture. (4) Same as Classics M102G.) Lecture, three hours; demonstrations/field trips. Concurrently scheduled with course C203. Greco-Roman Painting.

103A-C103B. Museum Studies. (4-4) Lecture, three hours; demonstrations/field trips. Concurrently scheduled with courses C203A-C203B. P/NP or letter grading.

103A. Introduction to historical evolution of museums and museology, theories and methods of their operations, historical and critical relationships between museology, art history, and new technologies for archiving and exhibiting artifacts and historical materials. C103B. Lectures and discussions organized to foster agreement with museum policies, operations, and productions involving focused study and on-site research on particular museum institutions and exhibitions.

103C. Museum Studies Practicum. (2-4 hours) Lecture, three hours. Requisites: courses C103A, C103B. On-site examination and discussion of select exhibitions, associations, and published materials and distributions, and of museum and gallery institutions, practices, and policies. Concurrently scheduled with course C203C. Letter grading.

104A. Western Islamic Art. (4) Lecture, three hours. From the Tigris and Euphrates Rivers to Spain, 7th to 16th century.

104B. Eastern Islamic Art. (4) Lecture, three hours. From the Tigris and Euphrates Rivers through Afghanistan and parts of central Asia; Ottoman Empire.

105C. Problems in Islamic Art. (4) Seminar, three hours. Monuments or theoretical problems related to Islamic culture and artistic production. May be repeated for credit with consent of advisor. Concurrently scheduled with course C214. P/NP or letter grading.


105B. Early Medieval Art. (4) Lecture, three hours. Requisite: course 51. Art and architecture of Western Europe from the Migration period until A.D. 1000.


105E. Byzantine Art. (4) Lecture, three hours. Requisite: course 51. Theory and development of Byzantine art from the iconoclastic controversy to 1453 and diffusion of Byzantine art in Armenia, Georgia, the Caucasus, and Russia.


106D. Late Renaissance Art: Counter-Reformation. (4) Lecture, three hours. Requisite: course 51. Painting, sculpture, and architecture of the late 16th and early 17th centuries considered in context of the Counter-Reformation.

108A-108B. Northern Renaissance Art. (4-4) Lecture, three hours. Requisite: course 57. Course 108A is requisite to 108B. Painting and sculpture in the Northern Renaissance.

108C. From Bruegel to Rubens. (4) Lecture, three hours. Requisite: course 57. Art and history in the Spanish southern Netherlands (i.e., present-day Belgium), circa 1550 to 1650, in context of Spanish rule and revolt against it (1588 to 1585), truce with the northern independent (Dutch) Netherlands (1609 to 1621), and renewal of war (1621 to 1648). P/NP or letter grading.

C109A. Baroque Art. (4) (Formerly numbered 109A.) Lecture, three hours. Requisite: course 57. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C209A. P/NP or letter grading.

109B. Baroque Art. (4) Lecture, three hours. Requisite: course C109A. Art and architecture of Northern Europe, 16th to late 17th century.

109C. European Art of the 18th Century. (4) Lecture, three hours. Requisite: course 57. Painting, architecture, and sculpture of the 18th century examined in light of political and intellectual developments. Special emphasis on effect of repression of democratic institutions, especially the French Revolution.


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110B. European Art of the 19th Century: Realism
and Impressionism. (4) Lecture, three hours. Requisite: course 54. Inquiry into problem of realism, with
emphasis on French art, but including developments
in England and Germany.
110C. European Art of the 19th and 20th Centuries: Postimpressionism to Surrealism. (4) Lecture, three hours. Requisite: course 54. Study of major developments in modern art, 1880s to 1930, including Seurat, Cezanne, Gauguin, Van Gogh, Art
Nouveau, Fauvism, German expressionism.
M110D. Cultural and Intellectual History of Modern Europe: 19th Century. (Same
as
History
M126E.) Lecture. Designed for juniors/seniors. Climates of taste and climates of opinion. Educational,
moral, and religious attitudes; art, thought, and manners of the time in historical context. P/NP or letter
grading.
110E. Art and Politics in the Contemporary Americas: Post-World War II U.S. Art and Politics. (4)
Requisite: course 54. Selective survey of media and
art supporting, condoning, and resisting U.S. capitalism and imperialism, with special emphasis on Vietnam era and arts of protest.
110F. Selected Topics in Modern Art. (4) Lecture,
three hours. Requisite: course 54. Changing topics in
modern art (post-1780) which reflect interests of individual regular and visiting faculty members. May be
repeated once for credit. P/NP or letter grading.
to U.S. imperialism. Discussion of the cases of Mexico, Cuba, Chile, and Nicaragua.
C110H. Latin American Art of the 20th Century.
(4) Lecture, three hours. Mainstream modern and
contemporary art and architecture of selected Latin
American countries, including both modernist and
postmodernist forms, considered in context of social
and political concerns, both national and international. Concurrently scheduled with course C254. P/NP
or letter grading.
C112A. American Art before the Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture
in the U.S. from Colonial period through the Civil War.
Concurrently scheduled with course C212A.
C112B. American Art in the Gilded Age, 1860 to
1900. (4) Lecture, three hours. Painting, sculpture,
and architecture in the U.S. from the Civil War to turn
of the century. Concurrently scheduled with course
C212B.
C112C. American Art, 1900 to 1945. (4) Lecture,
three hours. Painting, sculpture, and photography in
the U.S. from 1900 to 1945. Concurrently scheduled
with course C212C. P/NP or letter grading.
CM112D. African American Art. (4) (Same as AfroAmerican Studies CM112D.) Lecture, three hours.
Detailed inquiry into work of 20th-century African
American artists whose works provide insightful and
critical commentary about major features of American
life and society, including visits to various key African
American art institutions in Los Angeles. Concurrently
scheduled with course CM212D. P/NP or letter grading.
CM112E. African American Art. (4) (Same as AfroAmerican Studies CM112E.) Lecture, three hours.
Continuation of course CM112D, involving detailed
inquiry into work of 20th-century African American
artists. Concurrently scheduled with course CM212E.
P/NP or letter grading.
CM112F. Imaging Black Popular Culture. (4)
(Same as Afro-American Studies CM112F.) Lecture,
three hours. Critical examination of media ranging
from African American painting and sculpture to MTV
and advertising, with emphasis on relationship between black visual production and racism, Afrocentrism, political resistance, and notions of blackness.
Concurrently scheduled with course CM212F. P/NP
or letter grading.
114A. Early Art of India. (4) Lecture, three hours.
Not open to freshmen. Survey of Indian art from Indus
Valley cultures to the 10th century. Emphasis on Buddhist and Hindu backgrounds of the arts.

114C. Japanese Art. (4) Lecture, three hours. Not
open to freshmen. Japanese art from its beginning in
prehistory through the 19th century. Emphasis on development of Buddhist art and its relationship with the
culture.
114D. Later Art of India. (4) Lecture, three hours.
Not open to freshmen. Survey of Indian art from the
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.
114E. Arts of Korea. (4) Lecture, three hours. Art
and archaeology of Korea from the Neolithic Period
through the Yi dynasty. Particular emphasis on early
archaeology and state formation, Buddhist art, Koryo
ceramics, and Yi literati painting.
114F. Arts of Southeast Asia. (4) Lecture,
three
hours. Not open to freshmen. Southeast Asian art
from its beginning in prehistory through the 19th century. Study of art of selected cultures from Burma,
Malaysia, Thailand, Cambodia, Vietnam, and Indonesia.
C115A. Advanced Indian Art. (4) Lecture,
three
hours. Requisite: course 114A. Study in Indian sculpture and architecture. Concurrently scheduled with
course C257.
C115B. Advanced Chinese Art. (4) Lecture, three
hours. Study in Chinese painting and sculpture. Concurrently scheduled with course C258.
C115C. Advanced Japanese Art. (4) Lecture, three
hours. Requisite: course 114C. Study in Japanese
painting and sculpture. Concurrently scheduled with
course C259.
C115D. Art and Material Culture, Neolithic to 210
B.C. (4) 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 C261A.
P/NP or letter grading.
C115E. Art and Material Culture of Early Imperial
China, 210 B.C. to A.D. 906. (4) Lecture,
three
hours. Palaces and tombs of early imperial dynasties,
impact of Buddhist art (cave temples), rise of new
media and technologies. Concurrently scheduled with
course C261B. P/NP or letter grading.
C115F. Art and Material Culture of Late Imperial
China, 906 to 1911. (4) Lecture, three hours. Secular
and religious (Buddhist and Taoist) architecture,
painting, sculpture, and various luxury industries (lacquer, porcelain, textiles, jade, bronze, furniture, wood
and bamboo carving, etc.). Concurrently scheduled
with course C261C. P/NP or letter grading.
C117A. Pre-Columbian Art of Mexico. (4) Lecture,
three hours. Requisite: course 55B. Study of art of selected cultures of northern Mesoamerica from ca.
1200 B.C. to the Conquest, with emphasis on historical and iconographic problems. Concurrently scheduled with course C218A.
C117B. Pre-Columbian Art of the Maya. (4) Lecture, three hours. Requisite: course 55B. Study of art
of selected Maya-speaking cultures of southern Mesoamerica from ca. 2000 B.C. to the Conquest, with
particular emphasis on history and iconography. Concurrently scheduled with course C218B.
C117C. Pre-Columbian Art of the Andes. (4) Lecture, three hours. Requisite: course 55B. Study of art
of selected cultures of Colombia, Ecuador, Peru, and
Bolivia from ca. 4000 B.C. to the Conquest, with particular emphasis on history and iconography of art of
Peru. Concurrently scheduled with course C218C.
C117D. Aztec Art. (4) Lecture, three hours. Requisite: course 55B or C117A. Painting, sculpture, architecture, and other arts of Nahuatl-speaking peoples
of central Mexico in the centuries before the Spanish
conquest, with emphasis on their social and historical
context and major scholarly debates. Concurrently
scheduled with course C218D. P/NP or letter grading.
118A. Arts of Oceania. (4) Lecture, three hours.
Requisite: course 55A. Survey of arts of the major island groupings of the Pacific, emphasizing style-regions and broad historical relationships.

118C. Arts of Sub-Saharan Africa. (4) Lecture,
three hours. Critical examination of key themes in art
and architecture of Africa, with emphasis on ways visual arts and built environment function with respect
to larger social and cultural issues. P/NP or letter
grading.
118D. Arts of Native North America. (4) Lecture,
three hours. Requisite: course 55A. Survey of painting, sculpture, and other arts from the Eskimo to peoples of the Caribbean and Southwestern U.S.
118E. Advanced Studies in Non-Western Art. (4)
Lecture, three hours. Requisite: course 118A or 118C
or 118D. Selected topics in arts of non-Western peoples which reflect interests of individual regular and
visiting faculty members. P/NP or letter grading.
C119C. Contemporary Arts of Africa. (4) Lecture,
three hours. Survey of African visual practices since
the mid-20th century, with special emphasis on
changing meaning of art object, status of “African”
artist, global reception of contemporary African art,
and very definitions of “contemporary African art.”
Concurrently scheduled with course C216C. P/NP or
letter grading.
C119D. Architecture and Urbanism in Africa. (4)
Lecture, three hours. Survey of African built environment at various moments and in different places from
about 200 C.E. to the present, with emphasis on cultural, social, and historical contexts of architecture,
gender, and space, and contemporary African cities.
Concurrently scheduled with course C216D. P/NP or
letter grading.
127. Undergraduate Seminar. (4) Seminar,
three
hours. Designed for juniors/seniors. Selected aspects
of art history explored through readings, discussion,
research papers, and oral presentations. May be repeated twice.
C140A. History of Korean Painting. (4) Lecture,
three hours. Requisite: course 114E. Korean painting
history from Three Kingdom period to the 19th century, with special emphasis on Choson dynasty (1392
to 1910). Concurrently scheduled with course C242A.
P/NP or letter grading.
C140B. History of Korean Ceramics. (4) Lecture,
three hours. Requisite: course 114E. History of Korean ceramics from Neolithic period to the 19th century,
with special emphasis on technological and stylistic
developments. Concurrently scheduled with course
C242B. P/NP or letter grading.
C140C. History of Korean Buddhist Art. (4) Lecture, three hours. Requisite: course 114E. History of
Korean Buddhist art from Three Kingdom period to
Choson dynasty, with special emphasis on Buddhist
sculpture, painting, and architecture. Concurrently
scheduled with course C242C. P/NP or letter grading.
C140D. Selected Topics in Korean Art. (4) Lecture,
three hours. Requisite: course 114E. Variable topics
in Korean art which reflect interests of individual regular and/or visiting faculty members. Concurrently
scheduled with course C242D. P/NP or letter grading.
C150A. Contemporary Art, 1940s to 1950s. (4)
Lecture, three hours. Requisite: course 54. Study of
major artistic and cultural trends following World War
II in the U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with
course C250A. P/NP or letter grading.
C150B. Contemporary Art, 1960s to 1970s. (4)
Lecture, three hours. Requisite: course 54. Study of
ambitions and contexts of pop art, minimalism, conceptual art, feminist art, performance, land art, and more.
Concurrently scheduled with course C250B. P/NP or
letter grading.
C150C. Contemporary Art, 1980s to the Present.
(4) Lecture, three hours. Requisite: course 54. Study
of politics of representation at end of the century, covering dominant strategies and trends in postmodernist
art. Concurrently scheduled with course C250C. P/NP
or letter grading.
150D. Selected Topics in Contemporary Art. (4)
Lecture, three hours. Requisite: course 54. Changing
topics in contemporary art (post-1945) which reflect
interests of individual regular and/or visiting faculty
members. May be repeated once for credit. P/NP or
letter grading.


200. Art Historical Theories and Methodologies. (4) Lecture, three hours. Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C280A. Letter grading.

C208B. Modernism and Mankind. (4) Lecture, three hours. Study of links between modern art and anthropology in early 20th-century artistic movements, drawing on ethnography, art criticism, aesthetic theory, and specific museum and exhibition debates. Concurrently scheduled with course C280B. Letter grading.

C208C. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to the present. Concurrently scheduled with course C280C. Letter grading.

195A-195B. Departmental Honors Courses. (4-4) Preparation: completion of minimum of four upper division art history courses with 3.5 departmental grade-point average and overall 3.0 grade-point average. Limited to junior/senior Art History and History. Art History majors. Two-term independent research project under supervision of an appropriate faculty member, culminating in departmental honors thesis of project under supervision of an appropriate faculty member. Letter grading.

197. Honors Convocation. To be arranged. Preparation: 3.0 grade-point average overall, 3.5 departmental grade-point average in major. Limited to juniors/seniors. Individual studies for majors. May be repeated once for credit with consent of adviser.

199. Special Studies in Art. (2 to 8) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to seniors. Individual studies for majors. Eight units may be applied toward the major. P/NP or letter grading.

Graduate Courses

200. Art Historical Theories and Methodologies. (4) Discussion, three hours. Critical examination of history of the discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts from antiquity to the present. May be repeated for credit with consent of adviser.

201. Topics in Historiography of Art History. (4) Discussion, three hours. Critical examination of historiographic traditions of specific areas and fields within the discipline of art history, concentrating on particular time periods, geographical areas, artistic traditions, or the work of one or more authors. May be repeated for credit with consent of adviser.

202. Topics in Theory and Criticism in Art History. (4) Discussion, three hours. Emphasized study of various theoretical and critical traditions within art history, concentrating on particular issues, authors, or methodologies either within or across historical and cultural areas. May be repeated for credit with consent of adviser. C203A-C203B. Museum Studies. (4-4) Lecture, three hours; demonstrations/field trips. May be repeated for credit with consent of adviser. Concurrently scheduled with courses C102A-C102B. S/U or letter grading. C203A. Introduction to historical evolution of museums and museumology, theories and methods of their operations, historical and critical relationships between museology, art history, and new technologies for archiving and exhibiting artifacts and historic materials. C203B. Lectures and discussions organized to foster active critical engagement with museum policies, operations, and productions involving focused study and on-site research on particular museum institutions and exhibitions.

C203C. Museum Studies Practicum. (2 to 4) Lecture, three hours; courses C201A, C203A, C203B. On-site examination and discussion of selected artworks, exhibitions, and associated published and distributed materials, and of museum and gallery institutions and policies. Concurrently scheduled with course C103C. Letter grading.

203D. Selected Topics in Museum Studies. (4) Discussion, three hours. Topics in museology, curatorial, and exhibition practices which reflect interests of regular and visiting faculty members. S/U or letter grading.

204. Restoration, Preservation, and Conservation. (4) Seminar, two hours. May not be repeated.

205. Studies in Prints. (4) Seminar, two hours. Critical studies in history and connoisseurship of graphic arts in the Western world. Group or individual studies often culminate in professionally directed exhibitions produced by Grunwald Center for the Graphic Arts. May be repeated for credit with consent of adviser.

206. Studies in Drawings. (4) Seminar, two hours. Critical studies in history and connoisseurship of draftsmanship in the Western world. Individual studies emphasizing professional presentation. Group or individual studies often culminate in exhibitions sponsored by Grunwald Center for the Graphic Arts. May be repeated for credit with consent of adviser.


209A. Baroque Art. (4) Lecture, three hours. Requisite: course 57. Survey of artistic trends in Italy from 1595 to 1715. Emphasis on relevance to contemporary issues, critiques, and theory. May be repeated for credit with consent of adviser. S/U or letter grading.

210. Egyptian Art. (4) Seminar, two hours. Requisites: courses 101A, 101B, M102A. Art in Egypt during the Late pharaonic period. Students should be ready to prepare for every meeting a briefing of a topic from archaeological memoirs, not to exceed 10 minutes. Some lectures may be repeated for credit with consent of adviser.

211. Topics in Aegean Art. (4) Seminar, two hours. Requisites: courses M102A, M102B. Art and architecture of Aegean Bronze Age (3000 to 1000 B.C.). Emphasis on change and continuity in artistic and cultural traditions of specific areas and fields within the discipline of art history, concentrating on particular time periods, geographical areas, artistic traditions, or the work of one or more authors. May be repeated for credit with consent of adviser. C212A. American Art before the Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in the U.S. from Colonial period through the Civil War. May be repeated for credit with consent of adviser. Concurrently scheduled with course C112A.

C212B. American Art in the Gilded Age, 1860 to 1900. (4) Lecture, three hours. Painting, sculpture, and architecture in the U.S. from the Civil War to the turn of the century. May be repeated for credit with consent of adviser. Concurrently scheduled with course C112B.

C212C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and photography in the U.S. from 1900 to 1945. May be repeated for credit with consent of adviser. Concurrently scheduled with course C112C. S/U or letter grading.

C212D. African American Art. (4) Seminar, three hours. Requisites: courses M102A, M102B. Art and architecture of African American artists whose works provide insightful and critical commentary about major features of American life and society, including visits to various key African American art institutions in Los Angeles. May be repeated for credit with consent of adviser. Concurrently scheduled with course CM112D. S/U or letter grading.

C212E. African American Art. (4) Seminar, three hours. Continuation of course C212D, involving detailed inquiry into works of African American artists on a changing basis. Concurrently scheduled with course CM112D. S/U or letter grading.

C212F. African Art. (4) Seminar, three hours. Emphasis on relevance to contemporary issues, critiques, and theory. May be repeated for credit with consent of adviser. Concurrently scheduled with course CM112F. S/U or letter grading.

213. Advanced Studies in Islamic Art. (4) Seminar, two hours. Art and architecture of Islamic world (Spain to Iran) from the 7th to 17th century. Monumental and theoretical problems related to Islamic culture and artistic production. May be repeated for credit with consent of adviser.

C214. Problems in Islamic Art. (4) Seminar, three hours. Group or individual studies often culminate in professionally directed exhibitions produced by Grunwald Center for the Graphic Arts. May be repeated for credit with consent of adviser. Concurrently scheduled with course C104C. S/U or letter grading.


C216D. Architecture and Urbanism in Africa. (4) Lecture, three hours. Survey of African built environment at various moments and in different places from about 200 C.E. to the present, with emphasis on cultural, social, and historical contexts of architecture, gender, and space, and contemporary African cities. Concurrently scheduled with course C119D. P/NP or letter grading.

C218A. Pre-Columbian Art of Mexico. (4) Lecture, three hours. Requisite: course 55B. Study of art of selected cultures of northern Mesoamerica from ca. 1200 B.C. to the Conquest, with emphasis on historical and iconographic problems. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117A.

C218B. Pre-Columbian Art of the Maya. (4) Lecture, three hours. Requisite: course 55B. Study of art of selected cultures of southern Mesoamerica from ca. 2000 B.C. to the Conquest, with particular emphasis on history and iconography. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117B.

C218C. Pre-Columbian Art of the Andes. (4) Lecture, three hours. Requisite: course 55B. Study of art of selected cultures of Ecuador, Colombia, Peru, and Bolivia from ca. 4000 B.C. to the Conquest, with particular emphasis on history and iconography. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117C.

C218D. Aztec Art. (4) Lecture, three hours. Requisite: course 55B or C117A. Painting, sculpture, architecture, and other arts of Nahua-speaking peoples of central Mexico in the centuries before the Spanish conquest, with emphasis on their social and historical context and major scholarly debates. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117D. S/U or letter grading.

219A. Oceanic Art. (4) Discussion, two hours. Studies in selected topics in the art of Pacific islands. May be repeated for credit with consent of adviser.

C219B. Pre-Columbian Art. (4) Discussion, two hours. Requisites: courses C218A-C218B. Study of art of selected cultures of Africa and Oceania in the centuries before the Spanish conquest, with emphasis on their social and historical context and major scholarly debates. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117E. S/U or letter grading.

C219C. African Art. (4) Discussion, two hours. Requisites: courses C218A-C218B. Study of art of selected cultures of Africa and Oceania in the centuries before the Spanish conquest, with emphasis on their social and historical context and major scholarly debates. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117F. S/U or letter grading.

C219D. Native American Art. (4) Discussion, two hours. Studies in selected topics in art of the American Indian. May be repeated for credit with consent of adviser.

C220. Oceanic, Pre-Columbian, African, and Native American Art. (4) Discussion, two hours. Studies in selected topics comparing arts of Oceania, Africa, and pre-Columbian and Native North America. May be repeated for credit with consent of adviser.
221. Topics in Classical Art. (4) Lecture, two to three hours. Studies in Parthian art. Site-by-site survey of the Near East (Afghanistan, Iran, Iraq, Syria) during period of Greek and Parthian control. May be repeated for credit with consent of adviser.

223. Classical Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser.

243. Selected Topics in Korean Art. (4) Lecture, three hours. Study of selected topics in 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.

244. Topics in European Art from 1700 to 1900. (4) Lecture, two to three hours. May be repeated for credit with consent of adviser.

245. European Art from 1700 to 1900. (4) Seminar, two hours. May be repeated for credit with consent of adviser.

246. Art and Architecture of Georgian England. (4) Seminar, two hours. May be repeated for credit with consent of adviser.

250A. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Requisite: course 54. Study of major artistic and cultural trends following World War II in the U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course 150A. S/U or letter grading.


251. Contemporary Art. (4) Discussion, three hours. Selected topics in contemporary art, criticism, and theory. S/U or letter grading.

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

254. Latin American Art of the 20th Century. (4) Lecture, three hours. Mainstream modern and contemporary art and architecture of Latin American countries, including both modernist and postmodernist forms, considered in context of political and social concerns, both national and international. May be repeated for credit with consent of adviser. Concurrently scheduled with course 110H. S/U or letter grading.

255. American Art. (4) Seminar, two hours. Requisite: courses 112A or 112B or 112C, depending on topic. Topical approach to American art from Colonial period to the present. Discussion of weekly readings, studio visits, oral presentations. May be repeated for credit with consent of adviser.

257. Advanced Indian Art. (4) Lecture, three hours. Requisite: course 114A. Study in Indian sculpture and architecture. May be repeated for credit with consent of adviser. Concurrently scheduled with course 115A. S/U or letter grading.

258. Advanced Chinese Art. (4) Lecture, three hours. Study in Chinese painting and sculpture. May be repeated for credit with consent of adviser. Concurrently scheduled with course 115B. S/U or letter grading.

260. Indian Art. (4) Lecture, two hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of adviser. Concurrently scheduled with course 115C.

260A. Indian Art. (4) Lecture, two hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of adviser. Concurrently scheduled with course 115C.

260B. Chinese Art. (4) Lecture, two hours. Advanced studies in secular and religious artistic traditions of China. May be repeated for credit with consent of adviser. Concurrently scheduled with course 115B.


261A. Art and Material Culture, Neolithic to 210 B.C. (4) Lecture, three hours. Genesis of Chinese civilization in light of new archaeological finds, including sites and works of art (e.g., ceramics, bronzes, jades). May be repeated for credit with consent of adviser. Concurrently scheduled with course 115D. Extensive research paper required of graduate students. S/U or letter grading.

261B. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906. (4) Lecture, three hours. Palaces and tombs of early imperial dynasties, impact of Buddhist art and architecture, rise of new media and technologies. May be repeated for credit with consent of adviser. Concurrently scheduled with course 115E. S/U or letter grading.

261C. Art and Material Culture of Late Imperial China, 906 to 1911. (4) Lecture, three hours. Secular and religious (Buddhist and Taoist) architecture, painting, sculpture, and various luxury industries (lacquer, porcelain, textiles, jade, bronze, furniture, wood and bamboo carving, etc.). May be repeated for credit with consent of adviser. Concurrently scheduled with course 115F. S/U or letter grading.

M262A. Topics in Asian Archaeology. (4) (Same as Anthropology M262B.) Lecture, three hours. Designed for graduate students. Studies of cross-cultural and inter-cultural phenomena. May be repeated for credit with consent of adviser.

M270. Art Law. (4) (Same as Law M301.) Knowledge of fine arts, arts management, or international law desirable. Limited enrollment; mandatory. Art and history students may cross-register with consent of instructors. Legal issues related to the fine arts. Consideration of U.S. domestic law as well as international treaties and foreign law in addressing such counterfeiting issues as the international trade in art, art in public places, and moral rights. Distinguished guest speakers and one field trip.

C280A. Art and Empire. (4) Lecture, three hours. Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C180A. Letter grading.

C280B. Modernism and Mankind. (4) Lecture, three hours. In-depth examination of modernist architecture and early 20th-century artistic movements, dwelling on ethnography, art criticism, aesthetic theory, and specific museum and exhibition debates. Concurrently scheduled with course C180B. S/U or letter grading.

C280C. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to the present. Concurrently scheduled with course C180C. Letter grading.


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

495. Teaching Art History. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching associate, fellow, and/or instructor. May be repeated for credit. S/U grading.
501. Cooperative Program. (2 to 6) 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 M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) S/U grading.


Related Courses

Classics
251A. Seminar: Classical Archaeology — Aegean Bronze Age
251B. Seminar: Classical Archaeology — Greco-Roman Architecture
251C. Seminar: Classical Archaeology — Greco-Roman Sculpture
251D. Seminar: Classical Archaeology — Greco-Roman Painting

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 Course

10. Arts Encounters: Exploring Arts Literacy in the 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 a global range of practices, course equips students with kinds of critical skills that enhance their understanding of, and sharpen their appetite for, a wide range of artistic practices. Attendance at performance/art events outside normal class schedule is mandatory. P/NP or letter grading.

Upper Division Courses

100. Selected Topics in the Arts. (4) Lecture, four hours; discussion and/or laboratory, three hours; outside study, five hours. Selected topics in the arts explored through a variety of approaches which may include projects, readings, discussion, research papers, and oral presentations. Topics to be announced in advance. May be repeated for a maximum of 8 units. P/NP or letter grading.

ASIAN AMERICAN STUDIES

Interdepartmental Program
College of Letters and Science

UCLA
3230 Campbell Hall
Box 951546
Los Angeles, CA 90095-1546
(310) 825-2974
fax: (310) 206-9844
http://www.sscnet.ucla.edu/aasc/

Min Zhou, Ph.D., Chair
Valerie J. Matsumoto, Ph.D., Vice Chair

Faculty Advisory Committee
King-Kok Cheung, Ph.D.
Chi-Fun Cindy Fan, Ph.D.
Shirley Hune, Ph.D.
Marjorie Kagawa-Singer, Ph.D.
Snehendu B. Kar, Dr.P.H., M.Sc.
Rachel C. Lee, Ph.D.
Jingi Ling, Ph.D.
David Wong Louie, M.F.A.
Valerie J. Matsumoto, Ph.D., Vice Chair
Robert A. Nakamura, M.F.A.
Don T. Nakaniishi, Ph.D.
Thu-Huong Nguyen-Vo, Ph.D.
Paul Ong, Ph.D.
Kyeyoung Park, Ph.D.
Michael Salman, Ph.D.
Shu-mei Shih, Ph.D.
Cindy Yee-Bradbury, Ph.D.
Henry S.N. Yu, Ph.D.
Min Zhou, Ph.D., Chair

Affiliated Faculty

Professors
Roshan Bastani, Ph.D. (Health Services)
Emil Berkovitch, Ph.D. (Community Health Sciences)
Edna Bonacich, Ph.D. (Sociology, UC Riverside)
King-Kok Cheung, Ph.D. (English)
Chi-Fun Cindy Fan, Ph.D. (Geography)
Shirley Hune, Ph.D. (Urban Planning)
Jerry Kang, J.D. (Law)
Snehendu B. Kar, Dr.P.H., M.Sc. (Community Health Sciences)
James E. Lubben, D.S.W. (Social Welfare)
Takashi Makinodan, Ph.D., in Residence (Medicine)
Robert A. Nakamura, M.F.A. (Film, Television, and Digital Media)
Don T. Nakaniishi, Ph.D. (Education)
Paul Ong, Ph.D. (Urban Planning)
William G. Ouchi, D.Litt., Ph.D. (Management)
Hiromi Lorraine Sakata, Ph.D. (Ethnomusicology)
Lois Takahashi, Ph.D. (Urban Planning)
Min Zhou, Ph.D. (Sociology)

Professors Emeriti
Lucie C. Cheng, Ph.D. (Sociology)
Kazuo Nihira, Ph.D. (Psychiatry and Biobehavioral Sciences)

Associate Professors
Clara Chu, Ph.D. (Information Studies)
Marjorie Kagawa-Singer, Ph.D. (Community Health Sciences)
Vinay Lai, Ph.D. (History)
Rachel C. Lee, Ph.D. (English)
Jingi Ling, Ph.D. (English)

Assistant Professors
Mitchell J. Chang, Ph.D. (Education)
Thu-Huong Nguyen-Vo, Ph.D. (East Asian Languages and Cultures)
Ninez Ponce, Ph.D., in Residence (Health Services)

Lecturers
Sefa Aina, B.A.
Esha N. De, Ph.D.
John Esaki, M.F.A.
Stewart Kwoh, J.D.
Glenn Omatsu, M.A.
Duong C. Pham, Ph.D.
Kent Wong, Ph.D.

Adjunct Professor
Russell Leong, M.F.A. (English)

Adjunct Associate Professor
Nancy Harada, Ph.D. (Medicine)

Scope and Objectives

The Asian American Studies Program, an interdepartmental program supported by the Asian American Studies Center, promotes the study of Asian American and Pacific Island peoples in the U.S. from several disciplines. An undergraduate major leading to a B.A. degree is available for those students who wish to pursue their studies about Asian Pacific Americans in more depth, while the graduate program leads to the M.A. degree. Students enrolled in an organized undergraduate major other than Asian American Studies may pursue a minor in the field.

A major goal of the program is to communicate the experiences of Asian Pacific Americans as an ethnic group. Courses examine the important issues and concerns of Asian Pacific Americans, including their history, social organization, and culture.

Undergraduate Study

Asian American Studies B.A.

The B.A. 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 Pacific Americans. An overall grade-point average of 2.0 is required for admission to the major.

Transfer Students

There are no specific preparation courses for the Asian American Studies major readily available at other institutions. Students should concentrate on the Intersegmental General Education Transfer Curriculum (IGETC) or UCLA general education requirements.
The Major
Required: A total of 14 courses (one lower division, 13 upper division), including Asian American Studies 99 and 100, one research methods course, two Asian American theme courses, two courses with focus on an Asian Pacific American ethnic-specific group, two ethnic/race/gender relations courses, two courses on history/culture/social or political institutions of Asia, and three elective courses selected from Asian American studies or the approved list of interdepartmental courses. At least seven of the courses taken for the major must be from the approved list of interdepartmental courses (available in the program office each term) and seven must be Asian American studies courses.

Students must also demonstrate proficiency equivalent to the completion of an elementary/basic one-year course of study in an Asian language prior to graduation.

No more than 8 units of course 199 may be applied toward the major.

All courses applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must maintain an overall grade-point average of 2.0 in all courses.

Honors Program
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 a cumulative GPA of 3.0 or better, and (3) completed Asian American Studies 99, 100, and one research methods course selected from a list maintained in the program office. Applications must be submitted no later than the end of the fifth academic year. For application forms and further information, contact the undergraduate counselors.

Honors students must take Asian American Studies 199HA during Spring Quarter of the junior year. During Fall and Winter Quarters of the senior year, they take courses 199HB and 199HC, 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.

Required: A total of 14 courses (one lower division, 13 upper division), including Asian American Studies 99 and 100, one research methods course, two Asian American theme courses, two courses with focus on an Asian Pacific American ethnic-specific group, two ethnic/race/gender relations courses, two courses on history/culture/social or political institutions of Asia, and three elective courses selected from Asian American studies or the approved list of interdepartmental courses. At least seven of the courses taken for the major must be from the approved list of interdepartmental courses (available in the program office each term) and seven must be Asian American studies courses.

Students must also demonstrate proficiency equivalent to the completion of an elementary/basic one-year course of study in an Asian language prior to graduation.

No more than 8 units of course 199 may be applied toward the major.

All courses applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must maintain an overall grade-point average of 2.0 in all courses.

Honors Program
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 a cumulative GPA of 3.0 or better, and (3) completed Asian American Studies 99, 100, and one research methods course selected from a list maintained in the program office. Applications must be submitted no later than the end of the fifth academic year. For application forms and further information, contact the undergraduate counselors.

Honors students must take Asian American Studies 199HA during Spring Quarter of the junior year. During Fall and Winter Quarters of the senior year, they take courses 199HB and 199HC, 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 and file a petition with the program counselor, Asian American Studies Center, 3230 Campbell Hall.

Required Lower Division Course (4 units): Asian American Studies 99.

Required Upper Division Courses (24 units):
Asian American Studies 100, one Asian American theme course, one course with focus on an Asian Pacific American ethnic-specific group, and three Asian American studies elective courses. No more than 4 units of course 199 may be applied toward the minor, and only courses in Asian American studies or those multiple-listed with the program may be taken to fulfill requirements for the minor.

All minor courses must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdb.net.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Asian American Studies Program offers the Master of Arts (M.A.) degree in Asian American Studies. Two concurrent degree programs (Asian American Studies M.A./Public Health M.P.H. and Asian American Studies M.A./Social Welfare M.S.W.) are also offered.

Asian American Studies

Lower Division Courses
10W. History of Asian Americans. (5) (Formerly numbered 10.) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for former course 10. Multidisciplinary examination of history of Asians and Pacific Islanders in the U.S. Satisfies Letters and Science Writing II requirement. Letter grading.

20. Contemporary Asian American Communities. (5) (Formerly numbered 100.) Lecture, three hours; discussion, one hour; fieldwork. Multidisciplinary introduction to post-World War II Asian American communities in the U.S. Topics include demographics, immigration, race-ethnicity, and range of cultural, social, economic, and political issues. P/NP or letter grading.

Upper Division Courses
101A. Field Studies Methods in Asian Pacific Communities. (4) Lecture, three hours. Preparation: one course from 100 through 197Z. Development of research techniques of data collection. P/NP or letter grading.

101B. Internships in Asian Pacific Communities. (4) Discussion, 90 minutes; fieldwork, eight hours minimum. Requisite: course 101A or another Asian American studies course (except 199). Integrates academic and empirical work by providing students the challenge of performing public service and community work in Asian Pacific or other multicultural communities, and of bringing their ongoing internship experiences back to classroom. P/NP grading.

103. Social Science Research Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to fundamentals of conducting social research on Asian Americans, providing experience in using some research methods and exercises in evaluating nature and quality of scientific research on Asian American issues. P/NP or letter grading.

105. Asian American Historiography. (4) Seminar on exploration of how works of history are written about Asian Americans. Focus on problems of historiography and method when considering source materials related to history and experience of Asian Americans. P/NP or letter grading.

107A. Introductory Video Ethnography and Documentary Workshop. (4) Laboratory, three hours. Introduction to concepts and methods of video documentation and video ethnography of the Asian Pacific American community. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition/lighting, sound recording, interviewing techniques, and editing. Students required to do off-campus fieldwork and complete video documentary. P/NP or letter grading.

107B. Advanced Video Ethnography and Documentary Workshop. (4) Laboratory, three hours. Requisite: course 107A. Advanced concepts and methods of video documentation and video ethnography of the Asian Pacific American community. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition/lighting, sound recording, interviewing techniques, and editing. Students required to do off-campus fieldwork and complete video documentary. P/NP or letter grading.

M108. Policy, Planning, and Community. (4) (Formerly numbered M108B.) (Same as Urban Planning M195.) Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographic information systems to be used to define problems and needs. P/NP or letter grading.

M110. Ethnic, Cultural, and Gender Issues in America’s Health Care Systems. (4) (Same as Health Services M110.) Lecture, three hours. Designed for juniors/seniors. Introduction to study of gender, ethnicity, and cultural diversity related to health status and health care delivery in the U.S. Letter grading.

M112A. Asian American Literature to 1880. (5) (Formerly numbered M120A.) Lecture, four hours. Requisite: English Composition 3 or 3H. Survey of Asian American literature from early period of formation to cultural nationalist movement of late 1860s and 1870s. Works of such authors as Edith Eaton, Carlos Bulosan, Hisaye Yamamoto, Louis Chu, and Maxine Hong Kingston included. P/NP or letter grading.

M112B. Asian American Literature since 1880. (5) (Same as English M120B.) Lecture, four hours. Requisite: English Composition 3 or 3H. Survey of contemporary Asian American literature with emphasis on its growing ethnic diversity following influx of new immigrants. Works of such authors as Theresa Cha, Bharati Mukherjee, David Wong Louie, Garrett Hongo, and Jessica Hagedorn included. P/NP or letter grading.

113. Asian Americans and the Law. (4) Survey of major federal and California case and legislative law directed specifically toward Asian Americans from 1850 to World War II and relocation. Major subject areas include anti-Asian labor legislation, legal prohibition against Asians’ right to testify, Japanese relocation orders, and equal educational opportunity for Asians. P/NP or letter grading.

115. Asian American Women. (4) Lecture, three hours. Condition of Asian women in America. Topics include women in Asian American history, racial and cultural stereotypes, and contemporary issues. Methodological approaches to study of gender issues presented and evaluated. P/NP or letter grading.

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Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdb.net.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Asian American Studies Program offers the Master of Arts (M.A.) degree in Asian American Studies. Two concurrent degree programs (Asian American Studies M.A./Public Health M.P.H. and Asian American Studies M.A./Social Welfare M.S.W.) are also offered.
116. Asian American Social Movements. (4) Lecture, three hours. Designed for juniors/seniors. Examination of historical roots 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 personal transformation and growth. P/NP or letter grading.


121. Exploring Asian American Theater. (4) (Formerly numbered 121B.) Discussion, four hours. Study of an Asian American play; students required to compose one act based on their own experience using lessons learned in class. Exploration of scene study and acting exercises. P/NP or letter grading.

M129A. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Same as Community Health M140.) Lecture, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status related to socioeconomic barriers to both care delivery and research for these populations. Letter grading.


M132A. Korean American Literature. (4) (Same as Comparative Literature M168.) Seminar, three hours. Comprehensive introduction to Korean American literature, with emphasis on Korean American experience, problems of gender, race, and class, nationalism, generational relationships, and impact of traditional Korean culture. Comparison to Korean American literature. P/NP or letter grading.

M132B. Chinese Immigrant Literature and Film. (4) (Same as Chinese M153 and Comparative Literature M171.) Lecture, two hours; discussion, one hour. Knowledge of Chinese not required. In-depth look at Chinese immigrant experience by reading literature and watching films. Theories of diaspora, gender, and race to inform thinking about discussion of relevant issues. P/NP or letter grading.

M133. Indian Identity in the U.S. and the Diaspora. (4) (Same as History M189B.) Lecture, three hours. Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic art forms such as bhangra rap and chanting music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.


135B. Asian Pacific Communities in Hawaii: Field Studies. (4) Lecture, one hour; discussion, three hours; internship, 10 hours minimum. Requisite or concurrent: course 135A. Participation in academic internships (minimum 50 hours) in social service, cultural, political, educational, and community organizations to gain experiential learning experience in Hawaii’s multicultural society. Given in Hawaii. P/NP or letter grading.


M154. Chinese Immigration. (4) (Same as Sociology M153.) Lecture, two hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organization, and institutions of Chinese America and its interactions with the social environment. P/NP or letter grading.

M163. Investigative Journalism and Communities of Color. (4) (Same as Afro-American Studies M102 and Chicano Studies M197R.) Lecture, three hours. Role of investigative journalism in understanding interethnic conflict and cooperation. Exploration of different perspectives on issues by comparing mainstream, ethnic, and alternative media sources. P/NP or letter grading.

164. Women, Violence, and Resistance. (4) (Formerly numbered 197M.) Lecture, four hours; discussion, one hour. 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, and South Asian cultures. Letter grading.


M197C. Topics in Asian American Literature. (5) (Same as English M197C.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics include specific genres (autobiography, poetry, or drama); specific nationalities within the Asian American community; and themes related to such problems as generational differences, gender politics, or interethnic encounters. May be repeated for credit. P/NP or letter grading.

M197R. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as Afro-American Studies M197R, American Indian Studies M197R, and Chicano Studies M197R.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as a case. Letter grading.

199. Special Topics in Asian American Studies. (2 to 4) Requisite: course 100A or 100B or comparable knowledge in Asian American studies. Limited to juniors/seniors. Special individual studies on topics such as ethnic literacy, public policies, economic development, immigrant education, and/or social policies related to Asian American studies. May be repeated for a maximum of 8 units.

199HA. Honors Seminar. (4) Seminar, three to four hours. Requisites: courses 99, 100. Introduction to research techniques and applications of critical methodology in study of Asians and Pacific Islanders in the U.S., in which students develop plan for independent research. Coursework may also include writing of proposal for research grant. Letter grading.

199HB-199HC. Honors Seminars. (4-4) Tutorial, to be elected. Requisite: course 199HA. Course 199HB is requisite to 199HC. Tutorials in which students write theses under direction of a faculty member. In Progress and letter grading.

Graduate Courses

200A. Critical Issues in Asian American Studies. (4) Designed for graduate students. Examines and seeks to develop a critical appreciation of research literature on Asians in America and to develop alternative interpretations of the Asian American experience. Topics include Asian American history and economics/political and social/psychological issues.

200B. Critical Issues in Asian American Communities. (4) Lecture, three hours. Designed for graduate students. Evaluation of traditional and contemporary theories and models of community for their appropriateness to understanding Asian Pacific American communities. Consideration of specific topics which explicate development, structure, and dynamics of Asian Pacific American communities in studying community issues and concerns.


200D. Asian American Literature and Culture. (4) Seminar, three hours. Examination of questions arising from Asian American literary and cultural criticism from the mid-1960s to the present, with focus on assumptions, possibilities, and limitations of certain theoretical perspectives and positions that have become important in Asian American critical practice. S/U or letter grading.

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


239. Race and Ethnicity as a Concept in Practice and Research. (4) (Same as Community Health Sciences M239.) Discussion, research techniques and applications of critical methodology in study of Asians and Pacific Islanders in the U.S., in which students develop plan for independent research. Coursework may also include writing of proposal for research grant. Letter grading.

239. Race and Ethnicity as a Concept in Practice and Research. (4) (Same as Community Health Sciences M239.) Discussion, research techniques and applications of critical methodology in study of Asians and Pacific Islanders in the U.S., in which students develop plan for independent research. Coursework may also include writing of proposal for research grant. Letter grading.
M260. Topics in Asian American Literature. (4) (Formerly numbered M297A.) (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 the Third World. (4) (Same as Comparative Literature M274.) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships between the so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.


297B. Asian Migration to the 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 the Asian experience, sending and receiving country perspectives, research and policy issues. S/U or letter grading.

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

596. Directed Individual Study or Research. (2 to 8) Hours to be arranged.


Related Courses

Afro-American Studies
M158B-M158C. Introduction to Afro-American History M164. Afro-American Experience in the U.S.

American Indian Studies
M161. Comparative American Indian Societies

Anthropology
M134. Cultural Construction of Gender and Sexuality: Homosexualities
139. Field Methods in Cultural Anthropology
146. Language and Culture of Polynesia: Past, Present, and Future
M154P. Gender Systems: North American
M154Q. Gender Systems: Global
M155. Women's Voices: Their Critique of Anthropology of Japan
M155Q. Women and Social Movements
166. Cross-Cultural Research on Urban Gangs
167. Urban Anthropology
175Q. Ideology and Social Change in Contemporary China
175R. Societies of Central Asia
175S. Japan
175T. Civilizations of East Asia
175U. Cultures of the Indonesian Archipelago
175V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea
175O. Ideology and Social Change in Contemporary China
177. Cultures of the Pacific

Chicana and Chicano Studies
101. Theoretical Concepts in Chicana and Chicano Studies
M159A, M159B. History of the Chicano Peoples

Communication Studies
M124. Psychology of Language and Gender
130. Cultural Factors in Interpersonal Communication
M153. The Media and Aggression against Women

Community Health Sciences
M140. Health Issues for Asian Americans and Pacific Islanders: Myth or Model?

Comparative Literature
M168. Korean American Literature
M171. Chinese Immigrant Literature and Film

Economics
152. Trade Unions and Professional Associations

English
M102A. Asian American Literature to 1980
M102B. Asian American Literature since 1980
119. Literature of California and the American West
140A. Criticism: History and Theory
178. Perspectives in Study of American Culture
196. Intercultural Encounters in Contemporary American Literature
M197C. Topics in Asian American Literature

Ethnomusicology
146. Folk Music of South Asia

Film and Television (Film, Television, and Digital Media)
106C. History of African, Asian, and Latin American Film
128. Media and Ethnicity

Geography
142. Population Geography
144. Ethnicity in the American City
146. Gender, Race, and Geography of Employment in American Cities
148. Economic Geography
150. Urban Geography
156. Metropolitan Los Angeles
196. Contemporary China

Health Services
M110. Ethnic, Cultural, and Gender Issues in America’s Health Care Systems

History
99. Introduction to Historical Practice
M153. The U.S. and the Philippines
154A-154B. U.S. Urban History
155A-155B. American Working Class Movements
157A-157B. North American Indian History
160A-160B. U.S. and Comparative Immigration History
161. Asians in American History
162. American West
163. History of California
164. History of Los Angeles
182A-182B. Thought and Society in China
183A. Culture and Power in Late Imperial China
183B. Selected Topics in Chinese History from 1500
183C. History of Women in China, A.D. 1000 to the Present
184. 20th-Century China
185A. Japanese Popular Culture
185B. Women in 20th-Century Japan

186. Shinto, Buddhism, and Japanese Folk Religion
188A. Early History of India
188B-188C. History of British India I, II
189A. Cultural and Political History of Contemporary South Asia
M189B. Indian Identity in the U.S. and the Diaspora
189C. Special Topics in Contemporary Indian History
190A-190B. History of Southeast Asia
190C. Philippine History
190D. Vietnam: Past and Present

Information Studies
111D. Ethnic Groups and their Bibliographies: Asian American History and Culture

Lesbian, Gay, Bisexual, and Transgender Studies
M134. Cultural Construction of Gender and Sexuality: Homosexualities

Political Science
102. Statistical Analysis of Political Data
104A-104B. Introduction to Survey Research
144A. Ethnic Politics: Chicano/Latino Politics
M144B. Ethnic Politics: African American Politics
159A-159B. Government and Politics of China
160. Government and Politics of Japan

Psychology
129C. Culture and Mental Health
136C. Survey Methods in Psychology
142H. Advanced Statistical Methods in Psychology (Honors)
151. Computer Applications in Psychology
175. Community Psychology

Social Welfare
101. Social Welfare in a Multicultural Society
104A. Filipino American Community and Family
104B. Japanese American Redress
104E. Japanese American Community and Family

Sociology
104. Introduction to Sociological Research Methods
106A. Field Research Methods I
113. Statistical and Computer Methods for Social Research
151. Comparative Immigration
152. Comparative Acculturation and Assimilation
M153. Chinese Immigration
156. Ethnic and Status Groups
157. Social Stratification
158. Urban Sociology
160. Intergroup Conflict and Prejudice
188. Comparative East Asian Societies before World War II
189. Japanese Society

Theater
102E. Theater of Non-European World

Urban Planning
187. Planning for Minority Communities

Women’s Studies
130. Women of Color in the U.S.
M155Q. Women and Social Movements

Asian American Studies / 165

Astronomy

See Physics and Astronomy
The atmospheric 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 offers a broad curriculum in dynamic and synoptic meteorology, atmospheric physics and chemistry, and upper atmosphere and space physics. The Bachelor of Science degree qualifies students for entry-level technical positions or represents valuable background for training in other professions. Master of Science and Ph.D. degree holders work in universities, research centers, laboratories, and government services and, increasingly, in the rapidly burgeoning private sector.

### Undergraduate Study

#### Atmospheric, Oceanic, and Environmental Sciences B.S.

**Preparation for the Major**

*Required:* Two courses from Atmospheric Sciences 2, 3, 6, 10; Chemistry and Biochemistry 20A; Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, 32B, 33A, and 33B; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL; Program in Computing 10A.

**Transfer Students**

To be admitted as Atmospheric, Oceanic, and Environmental Sciences majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of calculus, one year of calculus-based physics with laboratory, one general chemistry course with laboratory for majors, and one C++ programming course.

**The Major**

*Required:* Atmospheric Sciences 101, 102, 103, 104, three additional upper division atmospheric sciences courses selected in consultation with the undergraduate advisors, and two courses from a list of chemistry, mathematics, and physics courses selected in consultation with the undergraduate advisors. Students preparing for graduate studies in atmospheric chemistry should take Chemistry and Biochemistry 20B, 103, Mathematics 115A, 135A, 136, Physics 131, 132, students preparing for graduate studies in upper atmosphere and space physics should take Mathematics 115A, 135A, Physics 110A, 110B, M122; students preparing for graduate studies in atmospheric dynamics and physics should take Atmospheric Sciences 101, CM120, C125, Mathematics 115A, 135A, 136, Physics 131, 132.

#### 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 further information, contact the department at (310) 825-1217.

**Required Courses (28 units):** Seven 4-unit courses, including (1) three from Atmospheric Sciences 101, 102, 103, 104, C110, C115, CM120, C125, 130, M140, C145, C160, C165, C170, 180, CM185 and (2) four additional courses, two of which must be upper division, from any of the above atmospheric sciences courses beyond the minimum three required or from Atmospheric Sciences 2, 3, 6, 10, 190 (must be taken twice), Chemistry and Biochemistry 103, 110A, 110B, 113A, C113B, 114, Earth and Space Sciences 15, Mathematics 115A, 115B, 132, 135A, 135B, 136, 146, 170A, 170B, Organismic Biology, Ecology, and Evolution C109, C119, 122, 123, 147, 148, Physics 110A, 110B, 112, M122, 131, 132, Statistics 110A, 110B. Other relevant courses from related disciplines may be substituted with prior approval of the department.


One course may be taken on a Passed/Not Passed basis; all other minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

### Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Atmospheric Sciences.
Atmospheric Sciences

Upper Division Courses


M140. Environmental Chemistry Laboratory. (4) (Same as Chemistry M104.) Lecture, two hours; laboratory, three hours. Requisite: Chemistry M20B. Laboratory experience for students who wish to pursue a career in environmental science. Essential laboratory procedures to be performed in context of timely environmental issues involving water, soil, and air. Hands-on experience using scientific instruments and analytical techniques appropriate for environmental assessment. P/NP or letter grading.

C145. Microphysics of Clouds, Precipitation, and Aerosols. (4) Lecture, three hours; discussion, one hour. Requisite: Physics 1A, 1B, and 6A or 6B. Theoretical foundation combined with application and observation data. Topics include cloud formation and structure; condensation processes; thermodynamic equilibrium; nucleation; aerosol processes — formation, diffusion, sedimentation, condensation, precipitation; and thunderstorms. Concurrently scheduled with course C203B. Letter grading.

C160. Remote Sensing. (4) (Formerly numbered 160.) Lecture, three hours. Requisite: Physics 1C or 6B. Theory and techniques of remote sensing: atmospheric spectroscopy; methods based on scattering, absorption, and extinction; passive and active techniques; inversion methods; remote sensing of terrestrial meteorological and oceanographic parameters; remote sensing of land surfaces and biophysics; remote sensing of planetary atmospheres. Concurrently scheduled with course C240B. P/NP or letter grading.


C170. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 33A, Physics 1C. Introduction to basic plasma physical processes occurring in the sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamics) approach. Solar-planetary coupling processes; geophysical phenomena, aurora. Concurrently scheduled with course C405A. Letter grading.

CM185. Statistical Methods for Physical Sciences. (4) (Formerly numbered C185.) (Same as Statistics CM213.) Lecture, three hours. Limited to junior/senior departmental majors. Statistical framework for data analysis in fields of atmospheric sciences, astronomy, geology, and chemistry, depending on class composition. Presentation of popular techniques in these fields, with an emphasis on applications to atmospheric and oceanographic problems. Finite-difference methods and truncation error. Linear and nonlinear computational 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.

190. Operational Meteorology. (2 or 4) Special individual studies.

Graduate Courses


200B. Introduction to Dynamic Earth System. (4) Lecture, three hours. Overview of general circulation of atmosphere and ocean; global energy balances; coupled cycles (such as El Niño); mesoscale, synoptic, and tropical convection; boundary layers, clouds, and convection; biogeochemical cycles; climate variability and change. Letter grading.


201C. Introduction to Atmospheric Turbulence and Convection. (4) Lecture, three hours. Requisite: course C200A. Small-scale nonhydrostatic motions in the atmosphere. Introduction to turbulence and thermal convection. Planetary boundary layer, effects of moisture on atmospheric circulations, theory of moist convection, cumulus convection.

M203A. Introduction to Atmospheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours. Requisite: M203B. Basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

C203B. Microphysics of Clouds, Precipitation, and Aerosols. (4) Lecture, three hours; discussion, one hour. Theoretical foundation combined with applied study of observational data. Gas and particle processes; condensation, nucleation; growth and sedimentation; condensation; precipitation, and thunderstorms. Concurrently scheduled with course C145. Letter grading.


C205A. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Introducion to basic plasma physical processes occurring in the sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamics) approaches. Solar-planetary coupling processes. Theories of auroras. Concurrently scheduled with course C170. 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.

205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours; discussion, one hour. Solar, interplanetary, magnetospheric, ionospheric, auroral, geomagnetic phenomenological and theoretical back- ground for studies in space physics. Contextual un- derstanding and literacy in space physics terminology provided. S/U (for majors with consent of instructor after successful completion of written and oral compre- hensive examination and for nonmajors at discretion of major department) or letter grading.

205C. Planetary Upper Atmospheres. (4) Lecture, three hours; discussion, one hour. Aonomy of upper atmospheres of Earth and other planets and some of their satellites — thermospheric structure and mor- phology, circulations, and disturbances; ionospheres as collisional and magnetized (unmagnetized) plasmas: currents, drifts, and instabilities. Examples of upper atmospheric interaction with lower atmosphere and magnetosphere. S/U grading 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.

205D. Planetary Lower Atmospheres. (4) Lecture, three hours; discussion, one hour. Analysis of winds and circulation patterns in the lower atmospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamics) approach. Solar-planetary coupling processes. Magneto-hydrodynamic wave propagation. S/U grading for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

Dynamic and Synoptic Meteorology


212. Tropical Motions with Moist Processes. (4) Lecture, three hours. Requisite: course 210C. Cumu- lus convection and the boundary layer in the tropics. Cloud clusters and mesoscale convection systems. Interation of cumulus convection with large-scale envi- ronment. Tropical cyclones. Monsoon meteorology. S/U (for majors with consent of instructor after suc- cessful 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 C201A. Basic numerical methods for initial and boundary value problems in dynamics, with emphasis on applications to atmospheric and oceanographic problems. Finite-difference methods and truncation error. Linear and nonlinear computational models, mathematical tools 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.


CM213. Statistical Methods for Physical Sciences. (4) (Formerly numbered C213.) (Same as Statistics CM252.) Lecture, three hours. Designed for graduate astronomy, atmospheric sciences, chemistry, and ge- ology students. Statistical framework for data analysis in fields of atmospheric sciences, astronomy, geology, and chemistry, depending on class composition. Presen- tation of popular techniques in all fields, with empha- sis on applications and data, not theory, although some understanding of theory is needed. Concurrently scheduled with course CM185. 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 the atmosphere and oceans. Climatic history of our planet. Continuum me- chanics of ice sheets and mantle. Oscillatory models of Quaternary glaciation cycles. Transitions from equi- librium to periodic and aperiodic climate behavior. Cli- matic predictability. S/U (for majors with consent of in- structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

215. Ocean Circulation. (4) Lecture, three hours. Requisites: courses C200A, C201A. Phenomena, theory, and modeling of ocean circulations with global to regional scope. Circulation types include thermo- haline and wind-driven currents. Examination of rela- tionships between ocean circulations and smaller- scale motions, atmospheric climate, and bio- geochemical 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. Cumu- lus convection and the boundary layer in the tropical Cloud clusters and mesoscale convection systems. Interation of cumulus convection with large-scale envi- ronment. Tropical cyclones. Monsoon meteorology. S/U (for majors with consent of instructor after suc- cessful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.
216B. Wave Motions in the Tropical Atmosphere. (4) Lecture, three hours. Requisite: course 201B. Basic theory of equatorially trapped waves. Observa-
tions of tropical wave disturbances. Generation mech-
isms of tropical waves. Tropical 30-50 day oscilla-
tion. Quasi-biennial and semiannual oscillations. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive exami-
nation and for nonmajors at discretion of major de-
partment) or letter grading.

218. Dynamics of the Atmosphere/Ocean System. (4) Lecture, three hours. Requisite: course C201A. Structure and composition of the middle atmosphere. Waves in the middle atmosphere, including tides, planetary currents; coastal upwelling. Air/sea interactions. Ef-
ects of oceans on climate. S/U (for majors with con-
sent of instructor) or letter grading. Concurrently scheduled with course 210A. 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.

220. Dynamics of the Middle Atmosphere. (4) Lecture, three hours. Requisite: course C201A. Structure and composition of the middle atmosphere. Waves in the middle atmosphere, including tides, planetary waves, and gravity waves. Quasi-biennial oscillations. Stratospheric sudden warmings. Semianual oscilla-
tions. Wave-mean flow interactions. Interactions be-
tween middle and lower atmosphere. 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.

221. Geophysical Turbulence. (4) Lecture, three hours. Requisite: courses C200A, C201A. Phenom-
eria, theory, and practice of turbulence in Earth’s oceans and atmosphere — from fine structure to planetary scale motions. Regimes of turbulence in-
clude homogeneous and stratified, two and three dimen-
sions, shear flows, convection, stably stratified flows, and geostrophic motions. Examination of relation-
ships between turbulence and its transport effects on general circulation. 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.

224A. Atmospheric Turbulence. (4) Lecture, three hours. Kinematics of homogeneous and shear flow turbulence. Surface and planetary boundary layers, including heat transfer and turbulent convection. Sur-
vey of field and laboratory observations and their in-
terpretation. Role of major turbulent regimes, 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.

M224B. Atmospheric Diffusion and Air Pollution. (4) (Same as Civil Engineering M226B.) Lecture, three hours. Nature and sources of atmospheric pol-
ution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorologi-
cal factors and air pollution potential; meteorological aspects of air pollution. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

C227. Advanced Dynamic and Synoptic Meteorol-
ogy. (6) Laboratory, six hours. Requisite: course 101. Weather map analysis, thermodynamic diagrams, satellite imagery; extended, severe weather forecasting, isolentropic analysis, frontogenesis, quasi-geostrophic omega equation. Concurrently scheduled with course C110. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

C228. Mesosmeteology. (4) Lecture, three hours. Requisite: course 101. Observations of phenomena with length scales ranging from 20 to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and the dry line. Discus-
sions on design of field project. Concurrently sched-
uled with course C115. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

229. Mesoscale Modeling. (4) Lecture, three hours. Requisites: courses 201C, C228. Numerical and ana-
litical modeling of convective and mesoscale mo-
tions, from shallow heat sources to large complex systems. Model frameworks, assumptions, parame-
terizations, and solution techniques. Role of modeling efforts in understanding dynamic structure and be-
havior of systems. S/U (for majors with consent of in-
structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

Atmospheric Physics and Chemistry

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of troposphere; physical chemistry of surfaces and solu-
tions; precipitation and acid rain; atmospheric chem-
istry; regional and global bio-
geochmical cycles; current issues in global change. S/U (for majors with consent of instructor after suc-
cessful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230B. Atmospheric Chemistry II. (4) Lecture, three hours. Requisite: course M230A. Photochemistry of stratosphere and mesosphere; basic ionospheric pro-
cesses; stratospheric pollution and the ozone layer; physical chemistry of upper atmosphere clouds and aerosols; composition of extraterrestrial atmospheres; observational techniques and results. S/U (for majors with consent of instructor after suc-
cessful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

232. Chemical Transport Modeling. (4) Lecture, three hours. Requisites: courses M203A, 230A, 230B. Equations of tracer transport and chemical kinetics modeling; theoretical techniques; coupled simulations of gas-phase and aerosol micro-
physics and chemistry; computational versus obser-
vational results; current problems in tracer modeling. S/U (for majors with consent of instructor after suc-
cessful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

234A. Cloud and Precipitation Physics I. (4) Lec-
ture, three hours. Requisite: course C203B. Micro-
structure of atmospheric clouds; structure of the three phases of water substance, including surface effects; thermodynamic theory for equilibrium between the three phases of water substance, including surface effects; theory of homogeneous and heterogeneous nucleation of water drops and ice crystals. 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.

234B. Cloud and Precipitation Physics II. (4) Lec-
ture, three hours. Requisite: course 234A. Theory of growth and evaporative processes of water drops and ice crys-
tals by diffusion of water vapor; hydrodynamics of rig-
id bodies in a viscous medium; hydromodynamics of cloud drops, rain drops, and atmospheric ice parti-
cles; growth of cloud drops and atmospheric ice parti-
cles by collision. S/U (for majors with consent of in-
structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

M235. Ocean Biogeochemical Dynamics and Cli-
mate. (4) Same as Organismic Biology M238.) Lec-
ture, three hours. Interaction of ocean biogeochemi-
cal cycle with global climate. Introduction to nu-
erical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time-scales from a few million years to a few years. Anthropogenic per-
turbation of global heat and climate. Re-
sponse of ocean ecosystems to past and future glo-
bal changes. Use of isotopes to study ocean bi-
geochmical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

240A. Radar Meteorology. (4) Lecture, three hours. Radar detection of spherical and nonspherical parti-
cles; use of radar in studying size distributions of clouds and precipitation; radar and microwave radars; intensi-
ty and amount, updraft velocities, horizontal wind speed, and turbulence; radar observations of convective clouds, thunderstorms, tornadoes, hurricanes, snowstorms, clouds, and atmospheric fronts. S/U (for majors with consent of instructor after successful com-
pletion of written and oral comprehensive examina-
tion and for nonmajors at discretion of major depart-
ment) or letter grading.

C240B. Remote Sensing. (4) (Formerly numbered 240B,) Lecture, three hours. Requisites: Physics 1C or 6B. Theory and techniques of remote sensing; at-
mospheric spectroscopy; methods based on scatter-
ing, absorption, and extinction; passive and active techniques; inversion methods; remote sensing of ter-
restrial meteorological parameters and trace constitu-
ts; remote sensing of surfaces and atmosphere. S/U or letter grading.

244A. Radiation and Climate. (4) Lecture, three hours; laboratory, one hour. Requisite: course C203C. Radiation budget of earth/atmosphere system ob-
erved from satellites. Introduction to one-dimension-
ally radiative-convective and energy balance climate models. Climatic impact of increases in greenhouse gases and anthropogenic aerosols. Climatic impact of changes in solar constant, solar insolation, and volca-
nic eruptions. Radiative fluxes and heating rates in various atmospher-
ic conditions for climate applications. S/U or letter grading.

244B. Radiation and Climate. (4) Lecture, three hours; laboratory. Requisite: course C203C. Radiation budget of earth/atmosphere system ob-
erved from satellites. Introduction to one-dimension-
ally radiative-convective and energy balance climate models. Climatic impact of increases in greenhouse gases and anthropogenic aerosols. Climatic impact of changes in solar constant, solar insolation, and volca-
nic eruptions. Radiative fluxes and heating rates in various atmospher-
ic conditions for climate applications. S/U or letter grading.

Upper Atmosphere and Space Physics

250A. Solar System Magnetohydrodynamics. (4) Lecture, three hours. Requisite: course C205A. Deri-
vation of MHD equations with two fluid aspects, gen-
eralized Ohm’s law, small amplitude waves, disconti-
tinuities, shock waves, and instabilities. Applications to statics and dynamics of solar wind and planetary
generates and to solar wind/magnetosphere/ ionosphere coupling. S/U (for majors with consent of in-
structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

250B. Solar System Microscopic Plasma Process-
es. (4) Lecture, three hours. Requisite: course C205A. Adiabatic charged particle dynamics; inco-
herent radiation processes; collective effects in a plasma; propagation characteristics of electrostatic and electromagnetic waves; introduction to resonant interaction between charged particles and plasma waves. S/U (for majors with consent of instructor after successful completion of written and oral comprehen-
sive 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 control of magnetospheric phenomena. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

257. Radiation Belt Plasma Physics. (4) Lecture, three hours. Requisite: course 250B. Turbulent plasma instabilities and their relation to satellite observations and magnetospheric structure. Processes responsible for source, loss, and transport of energetic radiation belt particles. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


Special Studies

270. Seminar: Atmospheric Sciences. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.

271. Seminar: Atmospheric Dynamics. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.

M272A-M272B-M272C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Earth and Space Sciences M270A-M270B-M270C and Geography M270A-M270B-M270C.) Seminar, two hours. Archaeological, geochemical, micropaleontological, and stratigraphic evidence for climate change throughout the geological past. Rheology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction of modern climate on monthly, seasonal, and interannual time scale. May be repeated for credit. S/U or letter grading.

273. Seminar: Atmospheric Physics. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.

274. Seminar: Atmospheric Chemistry. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.


276. Seminar: Mesoscale Processes. (2) Seminar, one hour. Selected topics of current research interest in convection, extratropical cyclones, and fronts. May be repeated for credit. S/U or letter grading.

281. Special Topics in Dynamic Meteorology. (2 to 4) Individual meetings with instructor to be arranged. Content varies from year to year. S/U grading.

283. Special Topics in Atmospheric Physics. (2 to 4) 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) 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) Individual meetings with instructor to be arranged. Selected topics of current research interest in solar wind, magnetospheric, or ionospheric physics.

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 the Atmosphere.

296B. Synoptic and Mesoscale Meteorology.

296C. Numerical Mesoscale Modeling.

296D. Climate Dynamics.

296E. Numerical Modeling of the Atmosphere and Ocean.

296F. Hierarchical Modeling of Ocean/Atmosphere System.

296G. Upper Atmosphere and Space Physics.

296H. Recent Advances in Atmospheric Chemistry.

296I. Upper Atmospheric Dynamics.

296J. Experimental Mesoscale Meteorology.

296K. Tropical Meteorology.

296L. Geophysical Fluid Dynamics, Oceanography, and Climate.

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


Related Courses

Astronomy (Physics and Astronomy)

81. Astrophysics I: Stars and Nebulae

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology

180. Astrophysics Laboratory

Biomathematics

202. Fourier Analysis in Biology

Chemical Engineering

102. Chemical Engineering Thermodynamics

108A. Process Economics and Analysis

240. Fundamentals of Aerosol Technology

Chemistry and Biochemistry

103. Environmental Chemistry

110A. Physical Chemistry: Chemical Thermodynamics

110B. Physical Chemistry: Introduction to Statistical Mechanics and Kinetics

C123A-C123B. Classical and Statistical Thermodynamics

215D. Molecular Spectra, Diffraction, and Structure

M223C. Nonequilibrium Statistical Mechanics and Molecular Biophysics

225. Chemical Kinetics

Civil and Environmental Engineering

163. Introduction to Atmospheric Chemistry and Air Pollution

Earth and Space Sciences

M140. Introduction to Fluid Dynamics

154. Solar Terrestrial Physics

202. Continuum Mechanics

204. Time-Series Analysis and Spectral Estimation

265. Instrumentation, Data Processing, and Data Analysis in Space Physics

Electrical Engineering

103. Applied Numerical Computing

161. Electromagnetic Waves

162A. Wireless Communication Links and Antennas

M185. Introduction to Plasma Electronics

Mathematics

131A-131B. Analysis

132. Complex Analysis for Applications

135A-135B. Ordinary Differential Equations

136. Partial Differential Equations

142. Mathematical Modeling

146. Methods of Applied Mathematics

151A-151B. Applied Numerical Methods

170A, 170B. Probability Theory

171. Stochastic Processes

250C. Advanced Topics in Ordinary Differential Equations

265A-265B. Real Analysis for Applications

266A. Applied Ordinary Differential Equations

266B-266C. Applied Partial Differential Equations

269A-269B-269C. Advanced Numerical Analysis

271A. Tensor Analysis

271B. Analytical Mechanics

271C. Introduction to Relativity

274A. Asymptotic Methods

274B. Perturbation Methods

Mechanical and Aerospace Engineering

103. Elementary Fluid Mechanics

131A. Intermediate Heat Transfer

150A. Intermediate Fluid Mechanics

150B. Aerodynamics

192A, 192B. Mathematics of Engineering

192C. Numerical Methods for Engineering Applications

250A. Foundations of Fluid Dynamics

250B. Viscous and Turbulent Flows

250C. Compressible Flows

251A. Stratified and Rotating Fluids

252A. Stability of Fluid Motion

252B. Statistical Theory of Turbulence

259A. Seminar: Advanced Topics in Fluid Mechanics

Physics (Physics and Astronomy)

108. Optical Physics

110A, 110B. Electricity and Magnetism

112. Thermodynamics

115A, 115B. Quantum Mechanics

M122. Introduction to Plasma Electronics

131, 132. Mathematical Methods of Physics

210A, 210B. Electromagnetic Theory

215A. Statistical Physics

215B. Nonequilibrium Statistical Mechanics

222A-222B-222C. Plasma Physics

231A, 231B, 231C. Methods of Mathematical Physics

Statistics

100A. Introduction to Probability Theory

100B. Introduction to Mathematical Statistics

200A-200B. Statistical Theory
Bioengineering
Henry Samuel School of Engineering and Applied Science

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Carlo D. Montemagno, Ph.D., Chair

Professors
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Carlo D. Montemagno, Ph.D. (Roy and Carol Doumani Professor of Biomedical Engineering)

Assistant Professors
James Dunn, M.D., Ph.D.
Benjamin Wu, D.D.S., Ph.D.

Adjunct Associate Professors
Toshikazu Hamasaki, Ph.D.
Hercules Neves, Ph.D.

Adjunct Assistant Professor
Jacob Schmidt, Ph.D.

Scope and Objectives
The Department of Bioengineering was recently approved, and plans are underway to develop a scholarly program that treats bioengineering as a discrete engineering science discipline. Through intensive training in both modern biology and engineering science, the department provides the educational platform necessary for students to become leaders in the fields that are evolving from the convergence of the biological and physical sciences.

Considerable resources have been allocated to support the establishment of a world-class academic unit, including the construction of unique state-of-the-art laboratory teaching facilities dedicated to instructing students in the most advanced techniques for fabricating hybrid living/nonliving devices. Students enrolled in both the undergraduate and graduate programs learn how to design engineering systems that integrate with living systems of all size scales, starting at the molecular/nanoscale level.

Biological Chemistry
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Peter A. Edwards, Ph.D., Vice Chair
Harvey R. Herschman, Ph.D., Vice Chair

Professors
Utpal Banerjee, Ph.D.
Michael F. Carey, Ph.D.
John J. Colicelli, Ph.D.
Edward M.F. De Robertis, M.D., Ph.D. (Norman F Sprague Professor of Molecular Oncology)
John Edmond, Ph.D.
Peter A. Edwards, Ph.D.
David S. Eisenberg, D.Phil.
Armand J. Fuolo, Ph.D.
Judith C. Gasson, Ph.D.
Michael Grunstein, Ph.D.
Harvey R. Herschman, Ph.D. (Crump Professor of Medical Engineering)
Bruce D. Howard, M.D.
Reid C. Johnson, Ph.D.
Joseph A. Loo, Ph.D.
Kevin McIntee, Ph.D.
David I. Meyer, Ph.D.
Elizabeth F. Neufeld, Ph.D.
Gregory S. Payne, Ph.D.
Leena Petlenton, M.D., Ph.D. (Gordon and Virginia MacDonald Distinguished Professor of Human Genetics)
Leonard H. Rome, Ph.D.
Gabriel H. Travis, Ph.D.
Geraldine A. Weinmaster, Ph.D.
S. Larry Zipsky, Ph.D.

Professors Emeriti
Robert J. DeLange, Ph.D.
Samuel Edidson, Ph.D.
Robert M. Fink, Ph.D.
Dohn G. Glitz, Ph.D.
Isaac M. Harary, Ph.D.
John G. Pierce, Ph.D.
Sidney Roberts, Ph.D.
Emil L. Smith, Ph.D.
Marian E. Svedseld, Ph.D.
Irving Zabin, Ph.D.
Patrice J. Zamenhof, Ph.D.

Associate Professors
Karen M. Lyons, Ph.D.
Ke Shuai, Ph.D.
Alexander van der Bliek, Ph.D.

Assistant Professors
Ralf Landgraf, Ph.D.
Timothy F. Lane, Ph.D.
Kelsey C. Martin, Ph.D.

Lecturer
Felice D. Kurtzman, M.P.H.

Adjunct Associate Professor
Raymond Deshaies

Academic Coordinator
Eryn Ujila Lee, Ph.D.

Scope and Objectives
The biological chemistry graduate program prepares students for careers as independent research 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, enzymology, and biomolecular structure. Courses and seminar programs are designed to provide students with the necessary background and approach to encourage their continuing growth in these rapidly changing areas of science.

Interaction with other graduate programs provides access to scientists in a variety of related disciplines. Through its primary affiliation with the School of Medicine, the department 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 Ph.D., but candidates for the M.S. 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, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biological Chemistry.

Biological Chemistry
Upper Division Courses
M140. Cell Biology; Cell Cycle. (5) (Same as Molecular, Cell, and Developmental Biology M140.) Lecture, four hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L, Life Sciences 3, 4. Not open for credit to students with credit for Molecular, Cellular, and Developmental Biology 100 or C139. Satisfies premedical requirements. Eukaryotic cellular structures and biochemistry at a molecular level, biochemistry, and genetics. Evolution of cell cycle, signal transduction, and their involvement in development and cancer. Protein sorting and transport across cell membranes. Cytoskeletal components and cell-adhesion. Letter grading.
CM159B. Mechanisms in Regulation of Transcription II. (2) (Same as Chemistry CM159B.) Second five weeks. Lecture. Requires course CM159A. Not open to graduate students. Eukaryotic general transcriptional apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin structure; transcription factors as targets of signal transduction pathways; transcription factors in embryogenesis. Concurrently scheduled with course CM259B. P/NP or letter grading.


CM178. Molecular Genetics. (6) (Same as Human Genetics CM178, Microbiology CM178, and Molecular, Cell, and Developmental Biology CM178.) Lecture, five hours. Requisites: Chemistry 153A, 153B, Life Sciences 3, 4, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Basic concepts in modern genetics, including problems from both eukaryotic and prokaryotic systems. Emphasis on use of genetic techniques for addressing fundamental questions in cellular biochemistry. Topics include mutagenesis, repair, recombination, transposition, genetic regulation, developmental genetics, neurogenetics, and immunogenetics. Concurrently scheduled with course CM248. Letter grading.

195. Current Research in Biological Chemistry. (2) Limited to juniors/seniors. Personal interview required. Readings, discussion of current research results, and presentation of recent literature on topics under investigation in a research group in biological chemistry. P/NP or letter grading.

197. Topics in Contemporary Biology. (2) Seminar, two hours. Designed for undergraduate fellows in Howard Hughes Undergraduate Research Program. Presentation of weekly seminars on research literature in fields of biochemistry and molecular biology. May be repeated for credit. P/NP grading.

199. Directed Individual Research Studies in Biological Chemistry. (2 to 8) Laboratory, four to 20 hours. Preparation of written research proposal and consultation with instructor. Limited to juniors/seniors. Individual research projects carried out under direction of a faculty member. P/NP or letter grading.

Graduate Courses

201A-201B. Biological Chemistry. (5-5) Preparation: organic chemistry. Open to nonmedical students with consent of instructor. Primarily for first-year medical students and runs throughout School of Medicine's second semester. General biochemistry with emphasis on mammalian systems. Structure, function, and metabolism of major cellular components. To receive credit, both courses must be taken together in same academic year. In Progress and S/U grading.

204. Human Biological Chemistry and Nutrition Laboratory. (3) Laboratory, four hours. Open to nonmedical students with consent of instructor. Experiments illustrating techniques and procedures in medically related biochemistry and nutrition; analysis of experimental results. S/U or letter grading.


220A-220B-220C. Research Laboratory Rotations. (2 to 8 each) Students arrange apprentice- ships in laboratories of one or more departmental faculty members and engage in a research project under close faculty direction. Allows students to acquire in-depth laboratory experience in specific research areas and facilitates an informed decision on their part in selection of thesis research adviser. S/U grading.

M223. Membrane Molecular Biology. (4) (Same as Physiology M223.) Lecture, two hours; discussion, two hours. Requisite: course CM253. Advanced course in molecular aspects of membrane physiology and biochemistry covering lipids and physical chemistry of biological membranes; membrane biogenesis and targeting of proteins to membranes; pumps, carriers, and channels; and transmembrane signaling. S/U or letter grading.

M234. Genetic Control of Development. (4) (Same as Molecular, Cell, and Developmental Biology M234.) Topics at forefront of molecular developmental biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

M237. Molecular and Cellular Foundations of Disease. (4) (Same as Pathology M237.) Lecture, two hours; discussion, two hours. Preparation: one course each in molecular biology, cell biology, and biological chemistry. Discussion in class of disease mechanisms, with emphasis on experiments leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. S/U or letter grading.


251A-251B-251C. Seminars: Transcriptional Regulation. (2-2-2) Advanced courses on mechanisms of gene transcription in both eukaryotes and prokaryotes intended for students actively working or highly interested in transcription. S/U grading.


M255. Biological Catalysis. (4) (Same as Chemistry CM255, Molecular, Cell, and Developmental Biology CM252, and Pharmacology M255.) Requires: Chemistry 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereochemistry, chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level.


CM259B. Mechanisms in Regulation of Transcription II. (2) (Same as Chemistry CM259B.) Second five weeks. Lecture, four hours. Requisite: course CM253 or CM267. Eukaryotic general transcriptional apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin structure; transcription factors as targets of signal transduction pathways; transcription factors in embryogenesis. Concurrently scheduled with course CM159B. S/U or letter grading.

M263. Metabolism and Its Regulation. (4) (Same as Chemistry M263.) Lecture, three hours. Requires: courses 201A and 201B, or Chemistry 153B, 153C, or 156, and 110A. Thermodynamic and kinetic aspects of metabolism; regulatory properties of enzymes; metabolic regulation; consideration of comparative aspects of metabolism in relation to physiologic function.

M266A-M266B-M266C. Seminars: Molecular Embryology. (2-2-2) (Same as Molecular, Cell, and Developmental Biology M266A-M266B-M266C.) Advanced course in developmental genetics and biochemistry, with emphasis on early development. Intended mostly for students actively working or highly interested in embryology. S/U grading.


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

596. Directed Individual Study and Research. (2 to 12) Hours to be arranged. S/U grading.

597. Preparation for Examinations. (2 to 4) Individual study for Ph.D. qualifying examinations or M.S. comprehensive examination. S/U grading.


BIOLOGY

See Organismic Biology, Ecology, and Evolution

BIOMATHMATICS

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Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biomathematics and the Master of Science (M.S.) degree in Clinical Research.

Biomathematics

Upper Division Courses

106. Introduction to Cellular Modeling. (4) Lecture, four hours; computer laboratory, two hours. Preparation: Some computer programming. Requires: Mathematics 20A. 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.

108. Introduction to Modeling in Neurobiology. (4) Lecture, four hours; computer laboratory, two hours. Preparation: Some computer programming. Requires: Mathematics 20A. 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.


110. Elements of Biomathematics. (4) Lecture, three hours; laboratory, three hours. Preparation: Calculus. Analysis of deterministic models. Conditions under which deterministic and probabilistic descriptions of biological phenomena are appropriate. Both approaches are applied to selected examples in physiology and biology.

M153A-M153B. Applied Regression Analysis. (4-4) (Same as Biostatistics M153A-M153B and Statistics CM120A-CM120B.) Lecture, three hours. Designed for juniors/seniors. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstraping for statistical inference. 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 the literature, with an emphasis on clinical research. Output from statistical computer packages discussed in class, but students do not use the 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.

170A. Computer-Based Introductory Biomathematics for Medical and Biological Experimenters. (4) Lecture, four hours; discussion, 90 minutes. Intensive elementary statistics course emphasizing design of experiments and analysis of data using statistical packages. Statistical topics similar to course 160 — descriptive statistics, t-tests, confidence intervals, linear regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination — but students also shown how to use the computer and run statistical software packages. Practical aspects of data collection and cleaning.

170B. Statistical and Mathematical Modeling in Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Second course in biomathematical methods. Topics include randomization methods, intermediate experimental design, contingency table analysis, analysis of variance, multiple linear regression, nonlinear regression, methods of classification, model checking, basic mathematical models including compartment models, and statistical computer software. Students have opportunity to design and conduct experiments on the computer, and to analyze previously collected data.

190HA-190HB. Honors Research in Biomathematics. (4-4) Limited to juniors/seniors. Individual research in some aspect of biomathematics designed to acquaint students in depth with mathematical models and computer applications in biology. Must be taken for at least two terms and for a total of at least 8 units. Thesis required.

199. Special Studies in Biomathematics. (2 to 8) Limited to juniors/seniors. Special studies in biomathematics, including either reading assignments or laboratory work or both, designed for proper training of students.

Graduate Courses


201. Deterministic Models in Biology. (4) Preparation: knowledge of linear algebra and differential equations. Examination of conditions under which deterministic approaches can be employed and conditions where they may be expected to fail. Topics include compartmental analysis, enzyme kinetics, physiological control systems, and cellular/animal population models.


M203. Stochastic Models in Biology. (4) (Same as Human Genetics M203.) Lecture, four hours. Requires: 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 a variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. (4) 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.
205. Electric Potential Problems in Membranes, Cells, and Tissues. (4) Preparation: knowledge of differential equations and electrostastics. Review of electrostatics; potential problems in rectangular, spherical, and cylindrical coordinates; modeling subthreshold electrical properties of cells; microelectrode measurements of intracellular potentials; boundary conditions for current flow across membranes; eigenfunction expansions and singular perturbation analysis of intracellular and extracellular potential distribution in spatial and cylindrical cells and synapses; computation of potential barriers for ions traversing a membrane pore.


M207A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M207A) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biostatistics M237 and Human Genetics M207B) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 110A, 110B. Methods of computer-oriented genetic analysis. Topics may include segregation analysis, parametric and nonparametric linkage analysis, quantitative methods, and phylogenetics. Laboratory for hands-on computer analysis of genetic data. Students complement M207A; may take either and are encouraged to take both. 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 basis for nerve function and mathematical and computational methods for studying this, appropriate for physics, biology, and mathematics. Survey of current leading research areas and software systems. S/U or letter grading.

208B. Modeling in Neurobiology for Biologists. (4) Lecture, four hours; laboratory, two hours. Preparation: introductory ordinary partial differential equations, programming experience. Introduction to neuronal modeling, including how to formulate models and study them with existing computer software (e.g., NODUS) or one’s own simple programs that use IMSL subroutines. Survey of current leading research areas. S/U or letter grading.


209. Modeling Infectious Diseases. (4) Lecture, three hours; discussion, one hour. Preparation: calculus. Recommended: experience with ordinary differential equations, linear algebra, and computer programming. How mathematical models can be used to design vaccination and treatment strategies for controlling and eradicating infectious diseases. Integration of empirical studies with theoretical models in lectures. Letter grading.

210. Optimization Methods in Biology. (4) Lecture, four hours. Preparation: undergraduate mathematical analysis and linear algebra; familiarity with programming language such as FORTRAN or C. Modern computational biology relies heavily on finite-dimensional optimization. Survey of theory and numerical methods for discrete and continuous optimization, with applications from genetics, medical imaging, pharmacokinetics, and statistics. S/U or letter grading.

211. Tissue and Cell Dynamics. (4) Lecture, three hours; discussion, one hour. Preparation: knowledge of differential equations to level of course 201, some mathematical modeling, computer programming. In-depth mathematical modeling of problems in tissue and cell dynamics to level of research literature. Analytical and numerical techniques for solving partial differential equations. S/U or letter grading.


220T. Computed Tomography: Theory and Appli- cations. (4) (Same as Biomedical Physics M230T) Computed tomography is a three-dimensional imag- ing technique being widely used in radiology and is becoming an active research area in biomedicine. Basic principles of computed tomography (CT), various reconstruction algorithms, special characteristics of CT, physics in CT, and various biomedical applica- tions.

221. Statistical Methods for Categorical Data. (4) (Same as Biostatistics M221.) 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 their applications and limitations. S/U or letter grading.

222. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisite: Statistics 100B. Dis- cussion of statistical analysis of incomplete data sets, with material from sample survey, econometric, bio- metric, psychometric, and general statistical litera- ture. Topics include treatment of missing data in sta- tistical packages, methods of handling missing data and regression imputation, weighting, likelihood-based methods, and nonrandom nonresponse models. Emphasis on application of methods to applied problems, as well as on understanding methods. S/U or letter grading.

223. Applied Bayesian Inference. (4) (Same as Biostatistics M223.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: Biostatis- tics 115 (or Statistics 100C), 200A. Bayesian ap- proach to statistical inference, with emphasis on bio- medical applications and concepts rather than mathe- matical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjuga- te priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.


2560A-M260B. Methodology in Clinical Research I, II, (6-6) (Same as Medicine M260A-M260B.) Lecture, three hours; discussion, two hours. Recom- mended preparation: M.D., Ph.D., or dental degree. Presentation of principles of major disci- plines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinet- ics. S/U or letter grading.

M260C. Methodology in Clinical Research III. (4) (Same as Medicine M260C) Discussion, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Presentation of principles and practices of major disciplines underlying clinical research method- ology, such as biostatistics, epidemiology, pharmaco- kinetics. S/U or letter grading.

M260E. Ethics in Patient-Oriented Research. (2) (Same as Medicine M261.) Lecture, two hours; dis- cussion, two hours. Discussion of current issues in re- sponsible conduct of clinical research, including re- porting of research, bartering, research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psychology M260) 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, back- ground, results, design. Role of appendices. Commu- nication with lay public. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Medi- cine M263 and Psychology M263) Lecture, two hours. Preparation: completion of general chemistry and scienc- es degree (M.D., D.D.S., D.N.Sc., or Ph.D.). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to a better understanding of contemporary drug develop- ment. S/U or letter grading.

270. Optimal Parameter Estimation and Experi- ment Design for Biomedical Systems. (4) (Same as Biomedical Engineering, Computer Sci- ence M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: course 220 or Computer Science M296A. Estimation meth- ology 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 focus on optimal sampling schedule design for kinetic models. Explora- tion of PC software for model building and optimal ex- periment design via applications in physiology and pharmacology. Letter grading.


273. Stochastic Modeling in Molecular Cellular Biology. (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 a system is stochastic. Mathematical descriptions of biochemical reactions with and without energy dissipation, molecu- lar structures, and biophysical techniques which measure various biological processes. S/U or letter grading.


M282. Analysis of Repeated Measures Designs. (4) (Same as Biostatistics M236) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200A, 200B. Presentation of classical and modern theories for analysis of repeated measures designs, with focus on computation and robustness. S/U or letter grading.
Biomedical Engineering

Interdepartmental Program
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C.R. Gallistel, Ph.D. (Psychology)
Allen Klinger, Ph.D. (Computer Science)
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Jacques J. Vidal, Ph.D. (Computer Science)

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Gary Duckwiler, M.D. (Radiological Sciences)
Sanjiv Gambhir, Ph.D. (Molecular and Medical Pharmacology)
Alan Garfinkel, Ph.D. (Physiological Science, Cardiology)
Robin L. Garrell, Ph.D. (Chemistry and Biochemistry)
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Thomas Chou, Ph.D. (Biomatics)
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James Dunn, M.D., Ph.D. (Pediatric Surgery)

Lee Goodpaster, Ph.D. (Pathology and Laboratory Medicine)
Susan Hattori, Ph.D. (Neurology)
George Huang, M.S.D., D.D.S., D.Sc. (Dentistry)
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Shiela Nirenberg, Ph.D. (Neurobiology)
Dario Ringach, Ph.D. (Neurobiology)
Felix E. Schweitzer, Ph.D. (Neurobiology)
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Daniel J. Valentino, Ph.D. (Radiological Sciences)
Benjamin Wu, D.D.S., Ph.D. (Materials Science and Engineering, Dentistry)

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John J. Gillman, Ph.D. (Materials Science and Engineering)
Boris Kogan, Ph.D. (Computer Science)

Adjunct Associate Professors
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Valery I. Noven, Ph.D. (Neurosurgery)
Usha Sinha, Ph.D. (Radiological Sciences)
Imke Schroeder, Ph.D. (Microbiology, Immunology, and Molecular Genetics)

Adjunct Assistant Professors
Robert Close, Ph.D. (Radiological Sciences)
Robert J. Greenberg, Ph.D. (Electrical Engineering)

Scope and Objectives
The Biomedical Engineering Interdepartmental Program trains specially qualified engineers and scientists to work on engineering applications in either medicine or biotechnology. Graduates apply engineering principles to current needs and contribute to future advances in the fields of medicine and biotechnology. Fostering careers in industry or academia, the program offers students the choice of an M.S. or Ph.D. degree in seven distinct fields of biomedical engineering. In addition to selected advanced engineering courses, students are required to take specially designed biomedical engineering courses to ensure a minimal knowledge of the appropriate biological sciences. Students receive practical training via an M.S. or Ph.D. research thesis or dissertation in biomedical engineering. Faculty members have principal appointments in departments across campus and have well-equipped laboratories for graduate student research projects.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Biomedical Engineering Program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biomedical Engineering.
Biomedical Engineering

Upper Division Courses

C101. Introduction to Biomedical Engineering. (4) (Formerly numbered 101.) Lecture, three hours; laboratory, three hours; discussion, one hour; outside study, six hours. Design and construction of circuits and systems for physical sciences, life sciences, and engineering students. Introduction to wide scope of biomedical engineering via treatment of selected important individual topics by small teams of specialists. Concurrently scheduled with course C201. Letter grading.

CM102. Basic Human Biology for Biomedical Engineers I. (4) (Formerly numbered M102.) (Same as Physiological Science CM102.) Lecture, four 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.

CM103. Basic Human Biology for Biomedical Engineers II. (4) (Formerly numbered M103.) (Same as Physiological Science CM103.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Modular-based understanding of human anatomy and physiology in selected organ systems (digestive, skin, musculoskeletal, endocrine, immune, urinary, reproductive). System-specific topics include organ function, normal and abnormal developmental processes, aging, cell survival and death. Concurrently scheduled with course CM203. Letter grading.

CM140. Introduction to Biomechanics. (4) (Formerly numbered M140.) (Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; outside study, eight hours. Requisites: Mechanical and Aerospace Engineering 102 (or Civil Engineering 108), 156A. Introduction to mechanical functions of human body: basic treatments of topics on bone remodeling, cardiovascular and pulmonary systems, stress and strain analysis, fluid mechanics of organs, and biomechanics. Concurrently scheduled with course CM240. Letter grading.

CM141L. Biomechanics Laboratory. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Requisites: CM140 or Mechanical and Aerospace Engineering 156A. Hands-on laboratory pertaining to mechanical testing and analysis of long bone specimens. Students, working in pairs, engage in all aspects of procedures. Fundamentals include design and fabrication of signal processing circuitry for use in data acquisition process, including bridge circuit component, amplifiers, and passive filters; computerized data acquisition using LabView and A/D input/output (I/O) board; strain measurements on metallic and bone specimens. Finite element analysis of structure under investigation; comparison of experimental to computational results. Concurrently scheduled with course CM241L. Letter grading.

CM145. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM145.) Lecture, four hours; outside study, eight hours. Topics include recombinant DNA technology, molecular biology, biotechnology, cellular biology, and physical sciences. Preparation: students with potential interest in biomedical engineering/biocomputing fields or in Science systems as a major. Introduction and survey of topics in bioengineering, biocomputing, and related bioengineering disciplines. Lecture presented by faculty currently performing research in one of the areas; some sessions include laboratory tours. P/NP grading.

CM196B. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computer Science CM196B and Cybernetics CM196B.) Lecture, two hours; laboratory, two hours. Requisites: course CM196A. Special laboratory techniques and experience in bioinformatics research. Laboratory instructor for use, design, and implementation of research in systems analysis and laboratory automation and safety. Comprehensie experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM296L. Letter grading.

198. Special Studies in Biomedical Engineering. (4) Lecture, four hours; outside study, eight hours. Study of selected topics in biomedical engineering taught by resident and visiting faculty members. Letter grading.

Graduate Courses

C201. Introduction to Biomedical Engineering. (4) Lecture, three hours; laboratory, three hours; outside study, six hours. Designed for physical sciences, life sciences, and engineering students. Introduction to wide scope of biomedical engineering via treatment of selected important individual topics by small team of specialists. Concurrently scheduled with course C101. Letter grading.

CM202. Basic Human Biology for Biomedical Engineers I. (4) (Same as Physiological Science CM202.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and 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 CM102. Letter grading.

CM203. Basic Human Biology for Biomedical Engineers II. (4) (Same as Physiological Science CM203.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Preparation: introductory courses in human anatomy and physiology in selected organ systems (digestive, skin, musculoskeletal, endocrine, immune, urinary, reproductive); System-specific topics include organ function, normal and abnormal developmental processes, aging, cell survival and death. Concurrently scheduled with course CM203. Letter grading.

M215. Biochemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, four hours; outside study, eight hours. Requisites: Chemical Engineering 101C and 106, or Chemistry 156. Use of principles 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 Engineering M217.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: Electrical Engineering 114D or 211A. Mathematical principles of medical imaging modalities: X-ray, computed tomography, position emission tomography, single photon emission computed tomography, magnetic resonance imaging. Topics include basic principles of X-ray, CAT, MR imaging reconstruction algorithms, system configurations and their effects on reconstruction algorithms, specialized imaging techniques for specific applications such as flow imaging. Letter grading.

M225. Bioseparations and Bioprocess Engineering. (4) (Same as Chemical Engineering CM225.) Lecture, four hours; outside study, eight hours. Requisites: Chemical Engineering 101C and 103, or Chemistry 156. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Letter grading.

230. Engineering Principles of Ultrasound. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Introduction to science and technology of acoustics in biological systems, starting with physical acoustics, acoustic wave (Helmholtz) equation, acoustic propagation and scattering in homogeneous and inhomogeneous media, and acoustics of tissue. Basic theories of wave mechanics, absorption, reflection, transmission, velocity of sound, impedance, equivalent circuits, and network models. Electroacoustic transducers (piezoelectric and MEMS) and radiators. Acoustic generation, modulation, and detection, including ultrasonic noise mechanisms. Receiving and processing of acoustic waves in presence of noise. Letter grading.

CM240. Introduction to Biomechanics. (4) (Same as Mechanical and Aerospace Engineering CM240.) Lecture, four hours; outside study, eight hours. Requisites: Civil Engineering 108 or Mechanical and Aerospace Engineering 102, 156A. Introduction to mechanical functions of human body; skeletal adaptation to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with mechanical engineering courses. Letter grading.

C241L. Biomechanics Laboratory. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Requisite: course CM140 or Mechanical and Aerospace Engineering 102A, 102B, 156A. Hands-on laboratory experience pertaining to mechanical testing and analysis of long bone specimens. Students, working in pairs, engage in all aspects of procedures. Fundamentals include design and fabrication of devices specific for use in data acquisition process, including bridge completion circuits, amplifiers, and passive filters; computerized data acquisition using LabView and A/D input/output; strain measurements on metallic and bone specimens. Finite element analysis of structure under investigation; comparison of experimental, theoretical, and computational results. Concurrently scheduled with course C141L. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM245.) Lecture, four hours; discussion, one hour; outside study, eight hours. Selected topics in molecular biology and biochemistry to form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of genome, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genetic engineering of plants, synthetic genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Biomedical Physics M248 and Pharmacology M248.) Lecture, four 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 a range of modalities. Practical experience provided through a series of imaging laboratories. Letter grading.

M250A. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Electrical Engineering M250A and Mechanical and Aerospace Engineering M280.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course M150L. Advanced discussion of micromachining processes used for fabrication of MEMS lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

M250B. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Electrical Engineering M250B and Mechanical and Aerospace Engineering M282.) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: course M250A. Introduction to MEMS design. Design methods, design rules, sensing and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both foundry and non-foundry processes. Computer-aided design for MEMS. Design project required. Letter grading.


257. Engineering Mechanics of Motor Proteins and Cytoskeleton. (4) Lecture, four hours; outside study, eight hours. Requisites: Mathematics 32A, 32B, 33A, 33B, Life Sciences 3, Physics 1A, 1B, 1C. Introduction to physics of motor proteins and cytoskeleton: mass, stiffness and damping of proteins, thermal forces and diffusion, chemical forces, polymer mechanics, structures of cytoskeletal filaments, mechanics of cytoskeleton, polymerization of cytoskeletal filaments, force generation by cytoskeletal filaments, active polymerization, motor protein structure and function foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of genome, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genetic engineering of plants, synthetic genes, gene therapy, and tissue engineering. Letter grading.

M260. Neuroengineering. (4) (Formerly numbered 260.) (Same as Neuroscience M206.) Lecture, four hours; laboratory, three hours. Requisites: Mathematics 31A, 31B; Chemistry 100, 171. Introduction to principles and technologies of neural recording and stimulation. Neurophysiology; clinical electrophysiology (EEG, evoked potentials, intracranial electrodes, intracellular recordings); microelectrodes and extracellular recording (field potentials and single units); chronic recording with extracellular electrodes, extracellular damage, electrode and cable survival; intracranial recording and glass pipettes electrodes, iontophoresis; imaging neural activity (Ca imaging, voltage-sensitive dyes), intrinsic optical imaging; fMRI, fMRI. Letter grading.


M263A-M263B. Organization of Neural Systems. (4) (Same as Neuroscience M203A-M203B.) Lecture, four hours; discussion/lab, three hours. Integration of neuroanatomical systems-level functional analysis of neural circuits leading to appreciation of their emergent properties. Discussion of organization of vertebrate central and peripheral nervous system based on cellular histological and regional analysis, highlighting contemporary experimental approaches. Topics include sensory processing, motor systems, physiological regulation, drive, learning, and neural basis of cognition. In Progress and letter grading.

C270. Laser-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisites: Electrical Engineering 117, 175, Life Sciences 3, Physics 17. Introduction to therapeutic and diagnostic use of energy delivery devices in medical and dental applications, with emphasis on fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C170. Letter grading.

C270L. Introduction to Techniques in Studying Laser-Tissue Interaction. (2) Laboratory, four hours; outside study, two hours. Corequisite: course C270. Introduction to simulation and experimental techniques used in studying laser-tissue interactions. Topics include computer simulation of light propagation in tissue, measuring absorption spectra of tissue/tissue phantom, making tissue phantoms, determination of optical properties of different tissues, thermal, temperature measurement, imaging, and diagnostics techniques. Reliability issues. Concurrently scheduled with course C170L. Letter grading.


CM280. 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 14. Engineering materials used in medicine and engineering, including tissue damage and natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

CM296L. Biomedical Systems/Biocybernetics Research Laboratory. (2 to 4) (Same as Computer Science CM296L) Lecture, two hours; laboratory, two hours. Requisite: course CM296B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM196L. Letter grading.

298. Special Studies in Biomedical Engineering. (4) Lecture, four hours; outside study, eight hours. Study of selected topics in biomedical engineering taught by resident and visiting faculty members. Letter grading.

299. Seminar: Biomedical Engineering Topics. (2) Seminar, two hours; outside study, four hours. Designed for graduate biomedical engineering students. Seminar by leading academic and industrial biomedical engineers from UCLA, other universities, and biomedical engineering companies such as Baxter, Amgen, Medtronic, and Guidant on development and application of recent technological advances in the discipline. Exploration of cutting-edge developments and challenges in wound healing models, stem cell biology, angiogenesis, signal transduction, bioinformatics, gene therapy, cDNA microarray technology, bioartificial culturing, nano- and micro-hybrid devices, scaffold engineering, and bioinformatics. S/U grading.

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

596. Directed Individual or Tutorial Studies. (2 to 12) Tutorial, to be arranged. Limited to graduate biomedical engineering students. Petition forms to receive approval. May be repeated for credit. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate biomedical engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate biomedical engineering students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate biomedical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate biomedical engineering students. Supervised independent research for M.S. candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate biomedical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.
The Biomedical Physics M.S./Ph.D. Program is an AAPM-accredited interdepartmental graduate program supported by the Departments of Molecular and Medical Pharmacology, Radiation Oncology, and Radiological Sciences. It offers training in four specialties: biophysics, medical imaging, medical physics, and radiation biology. Specialized facilities for training and research are available in the departmental clinical laboratories, the UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, the Image Processing Laboratory, and a number of associated hospitals. Highly specialized equipment includes two biomedical cyclotrons, the radiation oncology cyclotron, the picture archiving and communication system (PACS), four positron emission tomography (PET) scanners, the stereotactic gamma irradiator, and many VAX and SUN computers with image processor systems. In addition, clinical equipment is available to supervised students for practicums and research purposes. The program prepares students for careers as independent researchers or professional medical physicists, and graduates are qualified to work in a clinical environment and to pursue board certification as medical physicists or to apply for a clinical medical physics residency.

Graduates in biomedical physics can expect to engage in any combination of research, teaching, clinical service, and consultation. Biomedical physicists are usually employed in hospitals frequently associated with a medical school, where they are members of the academic staff. They are also in demand in high-technology private industry engaging in research and development of diagnostic equipment. In government agencies, biomedical physicists are involved in the formulation and enforcement of regulations applied to the use of radiation in health care delivery.

**Scope and Objectives**

The Biomedical Physics M.S./Ph.D. Program is an AAPM-accredited interdepartmental graduate program supported by the Departments of Molecular and Medical Pharmacology, Radiation Oncology, and Radiological Sciences. It offers training in four specialties: biophysics, medical imaging, medical physics, and radiation biology. Specialized facilities for training and research are available in the departmental clinical laboratories, the UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, the Image Processing Laboratory, and a number of associated hospitals. Highly specialized equipment includes two biomedical cyclotrons, the radiation oncology cyclotron, the picture archiving and communication system (PACS), four positron emission tomography (PET) scanners, the stereotactic gamma irradiator, and many VAX and SUN computers with image processor systems. In addition, clinical equipment is available to supervised students for practicums and research purposes. The program prepares students for careers as independent researchers or professional medical physicists, and graduates are qualified to work in a clinical environment and to pursue board certification as medical physicists or to apply for a clinical medical physics residency.

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**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnets.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Biomedical Physics Program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biomedical Physics.

**Biomedical Physics**

**Lower Division Course**

88. Lower Division Seminar: Special Topics in Biomedical Physics. (4) Seminar, three hours; outside study, nine hours. Requisite: Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in biomedical physics approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

**Upper Division Course**

199. Directed Individual Studies or Research for Undergraduate Students. (2 to 4) Preparation: submission of written proposal outlining course of study or research. Directed individual studies in biomedical physics for undergraduate students to be structured by faculty member and student at time of initial enrollment.

**Graduate Courses**

200A. Physics and Chemistry of Nuclear Medicine. (4) Lecture, three hours; discussion, one hour. Nuclear structure, statistics of radioactive decay, nuclear radiations and their interaction with matter, nuclear decay processes, nuclear reactions, and computational models. Physical and chemical properties of radioactive preparations used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET.

200B. Nuclear Medicine Instrumentation. (4) Lecture, one hour; laboratory, three hours. Requisite: course 200A. Introduction to nuclear medicine instrumentation, including well ionization chambers, probe and well scintillation detectors, scintillation cameras, and single photon and positron emission computed tomography.

201. Medical Radiation Accelerator Design. (4) Lecture, three hours. Requisite: course 216. Overview of physical principles involved in design of current particle accelerators (electron, proton, heavy particle) and analysis of characteristics of current accelerators and facility design.
213. Quantitative Autoradiography. (4) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimating brain and heart functions. Topics include 2-deoxyglucose method for metabolic rate; iododeoxyriphosphate method for blood flow; amino acid method for protein synthesis; quantitative receptor autoradiography; neuroanatomy and neurophysiology of autoradiogram and PET scan interpretation.

214. Medical Image Processing Systems. (4) Lecture, three hours; discussion, one hour. Requisites: courses 209, 210. Advanced image processing and image analysis techniques applied to medical images. Discussion of approaches to computer-aided diagnosis and image quantitation, as well as application of pattern classification techniques (neural networks and discriminant analysis). Examination of problems from several imaging modalities (CT, MR, CR, and mammography).


217. Statistics and Data Analysis in Biomedical Physics. (4) Lecture, three hours; laboratory, two hours. Requisites: Mathematics 31A, 31B, 32A, 32B, 33A, 33B. Introduction to computer-based statistical concepts, data analysis, and experimental design within biomedical physics research. Standard statistical packages and various statistical computing algorithms on relevant data sets within the radiological sciences.

218. Radiologic Functional Anatomy. (4) Lecture, three hours; discussion, two hours. Introduction to human anatomy as visualized through radiological and nuclear medicine imaging modalities such as X ray, CT, MRI, sonogram, PET, and SPECT.

219. Principles and Applications of Magnetic Resonance Imaging. (4) Lecture, three hours; laboratory, one hour. Basic principles of magnetic resonance (MR), imaging physics, and contrast mechanisms. Emphasis on hardware, Fourier transform imaging methods, structure of pulse sequences, various scanning parameters and reduction of artifacts. Introduction to MR spectroscopy, MR angiography, and fast imaging techniques.


221. Applied Health Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 216. Basics of radiation safety as applied to medical applications. Introduction to all regulatory issues pertaining to the medical uses of radioactivity.


223. Seminar: Radiation Biology. (1) Requisite or corequisite: course 204. Topics of current interest in radiation biology presented by faculty members, post-doctoral fellows, and graduate students from various departments and other universities. Discussion of ongoing research, as well as relevant journal articles. Topics vary from year to year. One student oral presentation required. S/U grading.

M230. Computed Tomography: Theory and Applications. (4) (Same as Biomatics M230.) Computed tomography is a three-dimensional imaging technique being widely used in radiology and is continuing an active research area in biomedicine. Basic principles of computed tomography (CT), various reconstruction algorithms, special characteristics of CT, physics in CT, and various biomedical applications.

M248. Introduction to Biological Imaging. (4) (Same as Biomedical Engineering M248 and Pharmacology M248.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for a range of modalities. Practical experience provided through a series of imaging laboratories. Letter grading.

260A-260B-260C. Seminars: Biomedical Physics. (1-1-1) Joint critical study by students and instructors in fundamental knowledge pertaining to biomedical physics. Periodic contributions by visiting scientists. Discussion of research in progress. Student presentations required in spring term. May be repeated. S/U (260A, 260B) and letter (260C) grading.

M266. Advanced Magnetic Resonance Imaging. (4) (Same as Neuroscience M267 and Psychiatry M266.) Lecture, four hours. Starting with basic principles, presentation of physical basis of magnetic resonance imaging (MRI), with emphasis on developments of advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.


269. Seminar: Medical Imaging. (1) Continuous registration required of students in medical imaging specialty. Topics of current interest in medical imaging, with lectures from the department, other universities, and private industry.

M285. Functional Neuroimaging: Techniques and Applications. (4) (Same as Psychiatry M285.) Incorporation of activation imaging, including PET and MRI methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of a functional MRI experiment. S/U or letter grading.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) (Same as Psychiatry M424.) Discussion, 90 minutes. Limited to 10 students. Current topics in functional neuroimaging, with emphasis on novel applications, analysis, and acquisition methods. Presentation and critique of student papers. Overall emphasis on magnetic resonance imaging. Example areas include tractography through diffusion tensor imaging, fMRI/subtracted related experimental designs, parallel receiver in imaging, integrated electrophysiological and image acquisition. S/U grading.

495. Special Studies in Biomedical Physics. (4) Seminar, two hours; laboratory, four hours. Teaching assistance in graduate laboratory courses under supervision of faculty member. S/U grading.

596. Research in Biomedical Physics. (4 to 12) Directed individual study or research. Only one 596 course may be applied toward M.S. degree requirements. May be repeated for credit.

597. Preparation for Ph.D. Qualifying Examinations. (4) May not be applied toward M.S. degree requirements. May not be repeated. S/U grading.

598. Research for and Preparation of M.S. Thesis. (4 to 12) Two 598 courses (or 598 and 596 combined) may be applied toward M.S. degree requirements. May be repeated. S/U grading.


BIOSTATISTICS
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Lecturers
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Jean L. Mickey, Ph.D., Emerita

Adjunct Professors
Frederick J. Dorey, Ph.D.
David W. Gjertson, Ph.D.
Martin L. Lee, Ph.D.
James W. Sayre, Dr.P.H.

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Karim F. Hirji, D.Sc.

Scope and Objectives
In recent years biostatistics has become one of the most stimulating areas of applied statistics. The field encompasses the methodology and theory of statistics as applied to problems in the life and health sciences. Biostatisticians are trained in the skilled application of statisti-
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Bio methods to the solution of problems encountered in public health and medicine. They collaborate with scientists in nearly every area related to health and have made major contributions to our understanding of AIDS, cancer, genetics, bioinformatics, and immunology, as well as other areas. Further, biostatisticians spend a considerable amount of time developing and evaluating the statistical methodology used in these endeavors. The Department of Biostatistics offers M.S. and Ph.D. degrees in Biostatistics and, through the School of Public Health, the M.P.H. and Dr.P.H. degrees with a specialization in biostatistics (see Public Health Schoolwide Programs). All students receive a balanced education, blending theory and practice.

A degree in biostatistics prepares students for work in a wide variety of challenging positions in government, industry, and education. Graduates have found careers involving teaching, research, and consulting in such fields as medicine, public health, life sciences, survey research, and computer science. There has always been a strong demand for well-trained biostatisticians; graduates have had little difficulty finding employment well suited to their particular interests.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnets.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Biostatistics offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biostatistics.

Biostatistics

Upper Division Courses

100A. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: one biological or physical sciences course. Suitable for juniors/seniors. Students who have completed courses in statistics may enroll only with consent of instructor. Not open for credit to students with credit for course 110A. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those encountered in public health and medicine. Topics include distributions, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 100A. Not open for credit to students with credit for course 110B. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

110A. Basic Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: Mathematics 31B. Not open for credit to students with credit for course 110B. Basic concepts of statistical analysis applied to biological sciences. Topics include random variables, sampling distributions, parameter estimates, statistical inference, P/NP or letter grading.

110B. Basic Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 110A. Not open for credit to students with credit for course 100B. Topics include elementary analysis of variance, simple linear regression; topics related to analysis of variance and experimental designs. P/NP or letter grading.

115. Topics in Estimation. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 100A, 100B. Small and large sample properties of common estimation techniques arising in biostatistical application. Letter grading.

M133A-M133B. Applied Regression Analysis. (4-4) (Same as Biometrics M133A-M133B and Statistics CM120A-CM120B.) Lecture, three hours. Designed for juniors/seniors. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear models (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical inference. P/NP or letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Limited to seniors. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.

Graduate Courses

200A. Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 100A and 100B, or 110A and 110B. Topics in methodology of applied statistics, such as design, analysis of variance, regression. S/U or letter grading.

200B-200C. Biostatistics. (4-4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses M153A, 200A. S/U or letter grading.

200B. Multiple linear regression, including model validation, influence of observations, regression diagnostics; discriminant analysis; principal components; factor analysis and clinical trials. 200C. Measures of association and analysis of categorical data, theory of generalized linear models.

201. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 200A. Further studies in multiple linear regression, including applied multiple regression models, regression diagnostics and model assessment, factorial and repeated measure analysis of variance models, nonlinear regression, response propensity scores, matching versus stratification, Poisson regression, and classification trees. Applications to biomedical and public health scientific problems. Letter grading.

M206A-M206B-M206C. Statistics in Psychiatric and Biobehavioral Research. (2-2-2) (Same as Psychiatry M206A-M206B-M206C.) Seminar, 90 minutes. Requisite: course 100B. Designed for graduate students. Examples from psychiatric literature used to illustrate statistical ideas and analysis strategies. Topics include experimental designs, sample size calculations, parametric versus nonparametric tests, regression, ANOVA, factor analysis, defining composite variables, causal inference. Computer used to illustrate basic data analysis. S/U or letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Community Health Sciences M208 and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

M209. Statistical Modeling in Epidemiology. (4) (Same as Epidemiology M212.) Lecture, four hours. Preparation: two terms of statistics (three terms recommended). Recommended: Epidemiology M204 or M211. Principles of modeling, including meanings of models, a priori model specification, translation of models into explicit population assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling. S/U or letter grading.

M210. Statistical Methods for Categorical Data. (4) (Same as Biomathematics M231.) Lecture, three hours; discussion, one hour. Requisites: courses 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.

M211. Statistical Methods for Epidemiology. (4) (Same as Epidemiology M211 and Statistics M250.) Lecture, four hours. Preparation: two terms of statistics (such as courses 100A, 100B). Requisites: Epidemiology 201A, 201B. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in Epidemiology 201A and 201B and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. Letter grading.

212. Distribution Free Methods. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100B or 110B, Statistics 100B. Theory and application of distribution free methods in biostatistics. S/U or letter grading.

213. Statistical Simulation Techniques. (4) Lecture, three hours; discussion, one hour. Requisites: course 110B, Statistics 100B. Techniques for simulating important statistical distributions, with applications in biostatistics. S/U or letter grading.


M215. Survival Analysis. (4) (Same as Biomathematics M281.) Lecture, three hours; discussion, one hour. Requisite: course 115 or Statistics 100C. Statistical techniques for analysis of survival data. S/U or letter grading.

216. Introduction to Statistical Methods for Biological Assays. (4) Lecture, three hours; discussion, one hour. Requisite: course 110B. Topics include standard statistical procedures for estimation of relative potency, density of microorganisms, and density of radioactivity, models used for these procedures, and statistical considerations for designing such assays. S/U or letter grading.

219. Special Topics: Supplemental Topics. (4) Lecture, three hours; discussion, one hour. Requisite: course 115. Topics in biostatistics not covered in other courses, not regularly offered.

M220. Experimental Statistics. (4) (Same as Psychological Science CM200.) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. S/U or letter grading.
230. Statistical Graphics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: course 42B, or equivalent. 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.


M232. Statistical Analysis of Incomplete Data. (4) (Same as Biomathematics M232.) Lecture, three hours; discussion, one hour. Requisites: course 200A, Statistics 100B. Discussion of statistical analysis of incomplete data sets, with material from sample survey, econometric, biometric, psychometric, and general statistical literature. Topics include treatment of missing data in statistical packages, missing data in ANOVA and regression imputation, weighting, likelihood-based methods, and nonrandom nonresponse models. Emphasis on implementation and application of problems, as well as on underlying theory. S/U or letter grading.


M234. Applied Bayesian Inference. (4) (Same as Biomathematics M234.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 115 (or Statistics 100C), 200A. Bayesian approach to statistical inference, with emphasis on bio-medical applications and concepts rather than mathematical theory. Topics include large sample Bayesian inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

M235. Causal Inference. (4) (Same as Psychiatry M235.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 110A, 110B. Methods of computer-oriented genetic analysis, structural equation, and graphical models. Addressing confounding in longitudinal studies. Path analysis, structural equation, and graphical models. Decision making when causality is disputed. Letter grading.

M236. Analysis of Repeated Measures Designs. (4) (Same as Biomathematics M282.) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B. Presentation of classical and modern theories for analysis of repeated measures designs, with focus on computation and robustness. S/U or letter grading.

M237. Applied Genetic Modeling. (4) (Formerly numbered M237.) (Same as Biomathematics M207B and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: courses 110A, 110B. Methods of computer-oriented genetic analysis. Topics may include segregation analysis, parametric and nonparametric linkage analysis, quantitative methods, and phylogenetics. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements 2M272; students may take either and are encouraged to take both. S/U or letter grading.


240. Master’s Seminar and Research Resources for Graduating Biostatistics M.S. Students. (4) Seminar, three hours. Introduction to resources for finding statistical literature. Discussion of principles of making statistical presentations and how to write statistical reports, including writing abstracts and choice of key words. Discussion of journal article preparation and presentation, including plagiarism detection. Current seminar participants make progress on their master’s reports. Letter grading.

245. Advanced Seminar: Biostatistics. (2) Seminar, three hours; discussion, one hour. Requisite: course 200C. Current research in biostatistics. May be repeated for credit. S/U or letter grading.

250A-250B. Linear Statistical Models. (4-4) (Formerly numbered M250A-M250B.) Lecture, three hours; discussion, one hour. Preparation: one upper division three-semester theoretical statistics course. Topics include linear algebra applied to linear statistical models, distribution of quadratic forms, Gauss/Markov theorem, fixed and random component models, balanced and unbalanced designs. Letter grading.

251. Multivariate Biostatistics. (4) Lecture, three hours; discussion, one hour; course requirement: course 250A. Multivariate analysis as used in biological and medical situations. Topics: distributions, component analysis, factor analysis, discriminant analysis, MANOVA, MANCOVA, longitudinal models with random coefficients. S/U or letter grading.


M272. Theoretical Genetic Modeling. (4) (Formerly numbered M237A.) (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 linkage, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.


276. Inferential Techniques that Use Simulation. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 200A, 200B. Recommended: Biostatistics 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 algorithms. S/U or letter grading.


278. Statistical Analysis of DNA Microarray Data. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 200C. Introduction in use of statistical tools used to analyze microarray data. Structure corresponds to analytical protocol an investigator might follow when working with microarray data. S/U or letter grading.


285. Advanced Topics: Recent Developments. (4) Lecture, three hours; discussion, one hour. Advanced topics and developments in biostatistics not covered in Biostatistics 2M210 through 219 or 270 through 276 or in other courses. Focus on time-series analysis, classification procedures, correspondence analysis, etc. S/U or letter grading.


295. Application of Statistical Theories in Biomedical Research. (4) Lecture, three hours; discussion, one hour. Requisite: Statistics 100B. Review of statistical theories essential to biostatistics. Illustration of applications by examples. Topics include delta method, order statistics, asymptotic properties of MLEs, iterative algorithms for MLEs, generalized likelihood ratio tests for categorical data, and transformations. Letter grading.

296. Seminar: Research Topics in Biostatistics. (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. Open to students on M.P.H. degree. Letter grading.

400A. 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 client-student 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 con- sulting. May be repeated for credit. S/U grading.

403A. Computer Management of Health Data. (4) Lecture, three hours; laboratory, two hours. Preparation: one statistics course. Concepts of health data management, design and maintenance of large data bases on various media as well as across networks; computer programming tools and techniques facilitating data entry, transmission, data retrieval for statistical analyses, tabulation and report generation useful to biostatisticians, health planners, and other health professionals. Letter grading.
403A. Database Management Systems. Three hours; laboratory, two hours. Requisite: courses 100A, 100B (100B may be taken concurrently). Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional population-based data sets to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

404. Principles of Sampling. Lecture, three hours; discussion, one hour. Requisite: course 100B, Epidemiology 100. Statistical aspects of design and implementation of a sample survey. Techniques for analysis of data, including estimates and standard errors. Avoiding improper use of survey data. Letter grading.

406. Applied Multivariate Biostatistics. Lecture, three hours; laboratory, one hour. Preparation: at least two upper division research courses. Requisite: course 100B. Use of multiple regression, principal components, factor analysis, discriminant function analysis, logistic regression, and canonical correlation in biomedical data analysis. S/U (optional only for nondivision majors) or letter grading.

409. Doctoral Statistical Consulting Seminar. Seminar, one hour; laboratory, four hours. Designed for doctoral students. Development of experience and expertise in collaborating with faculty in Schools of Public Health and Medicine. Students meet with investigators and develop design and protocol for data analysis. Minimum data protocol when data is obtained, and write up the study with lead investigators. S/U grading.

410. Statistical Methods in Clinical Trials. Lecture, three hours; discussion, two hours. Requisites: courses 100A, 100B. Design of studies in animals to assess antitumor response; randomization, historical controls, p-values, size of study, and stratification in human experimentation; various types of controls; prognostic factors, survivorship studies, and design of prognostic studies; organization of clinical trials — administration, comparability, protocols, clinical standards, data collection and management. S/U (optional only for nonmajors) or letter grading.


412. Statistical Methods for Case-Control Studies. Lecture, three hours. Requisite: course 200A. Statistical designs, sampling statistics, and analytic models of case-control studies. Special topics such as exploratory analyses, multiplicity of analyses, cross-validation, small sample performances of variance estimators, measurement error in the covariates, and incomplete data. S/U or letter grading.

413. Introduction to Pharmaceutical Statistics. 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.

419. Special Topics: Applied Biostatistics. Lecture, three hours; discussion, one hour. Requisite: course 100B. Special topics in applied statistics not covered in other courses in professional series. S/U or letter grading.

420. Database Management Systems. Lecture, three hours; laboratory, two hours. Requisite: course 403A. Database and database models applied to medical and public health studies; design of databases for efficient data retrieval and statistical analysis using package database management and statistical package programs. S/U or letter grading.
enches, humanities, and the arts. The B.A. in Chicana and Chicano Studies prepares stu-
dents for graduate education in professional
and academic fields and for a variety of posi-
tions that involve community and social service
in the U.S. and abroad.

Preparation for the Major
Required: Chicana and Chicano Studies 10A, 10B, Spanish 5 or equivalent.

Transfer Students
To be admitted as Chicana and Chicano Stud-
ies majors, transfer students with 90 or more
units must complete as many of the following
introductory courses as possible prior to ad-
mission to UCLA: one Chicana/Chicano life
and culture course, one Chicana/Chicano so-
cial structure and contemporary conditions
course, and five quarter terms of Spanish.

The Major
Required: A total of 15 upper division courses,
including Chicana and Chicano Studies 101,
ine courses from the approved list of Chicana
and Chicano Studies courses (available in
the department office each term), one term of field
studies, and three related study courses and
one advanced seminar from the approved list
of courses or by petition to the department
chair or undergraduate adviser. Related study
includes courses that provide a comparative
perspective to Chicana and Chicano studies
and/or a contextualization of Chicana and Chi-
cano communities in the world.

Recommended: English Composition 110; In-
formation Studies 111C; the introductory
course in two of the following: anthropology,
economics, history, political science, sociology;
one or more courses in Chicana/Chicano his-
tory, literature, feminism, social science.

All major courses must be taken for a letter
grade, with an overall grade-point average of
2.0 or better.

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 mem-
ber.

Course Limitations
No more than two 199 courses may be applied

Chicana and Chicano Studies Minor
The Chicana and Chicano Studies minor com-
pletes study in another traditional field. Stu-
dents participating in the minor are required to
complete both a departmental major in another
discipline and the Chicana and Chicano Stud-
ies minor.

To enter the minor, students must have an
overall grade-point average of 2.0 or better 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 selected from the ap-
proved list (available in the center office each
term).

All minor courses must be taken for a letter
grade, with an overall grade-point average of
2.0 or better. Successful completion of the mi-
or is indicated on the transcript and diploma.

Chicana and Chicano Studies

Lower Division Courses

10A. Introduction to Chicana/Chicana Studies: History and Culture. (5) Lecture, three hours; dis-
cussion, one hour. Interdisciplinary survey of diverse
historical experiences, cultural factors, and ethnic/a-
cial paradigms, including Indigenousness, gender,
sexuality, language, and borders, that help shape Chi-
cana/Chicano identities. Emphasis on critical reading
and writing skills. Letter grading.

10B. Introduction to Chicana/Chicana Studies: Social Structure and Contemporary Conditions.
(5) Lecture, three hours; discussion, one hour. Multi-
disciplinary examination of representation, ideologies,
and material conditions of Chicanas/Chicanos, in-
cluding colonialism, race, labor, immigration, poverty,
assimilation, and patriarchy. Emphasis on critical
reading and writing skills. Letter grading.

Upper Division Courses

101. Theoretical Concepts in Chicana and Chi-
cano Studies. (4) Lecture, four hours; discussion,
one hour. Required: course 10A or 10B. Survey of dif-
ferent theoretical approaches to field of Chicana and
Chicano studies. Letter grading.

M102. The Mexican American and the Schools. (4) Same as Education M102.) Review of research
and teaching strategies. Analysis of school policies
and practices and their effect on development of Mex-
ican American and Chicano youth and communities.

M103C. Origins and Evolution of Chicano Theater. (4) Same as Theater M103C.) Lecture, three hours.
Designed for juniors/seniors. Exploration of develop-
ment of Chicano theater from its beginning in legends
and rituals of ancient Mexico to work of Luis Valdez, Cherrie Mor-
gar, Sandra Cisneros, Rodolfo Anaya, Rolando Hino-
joa, Oscar Zeta Acosta, and Ana Castillo. P/NP or letter
grading.

M106. Health in Chicano/Latino Population. (4)
(Formerly numbered 106D.) Lecture, three 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 demo-
ographic/immigration changes. Binational review of health

M108A. Music of Latin America: Mexico, Central
America, and the Caribbean Isles. (4) (Same as Ethnomusicology M108A.) Lecture, four hours; dis-
cussion, one hour. Survey of traditional and contem-
porary musical culture.

109. Chicana/Chicano Folklore. (4) Lecture, four
hours. Examination of roots of Chicana/Chicano folk-
lore in Mexican oral tradition in the mid-19th century
and development of Chicana/Chicano folklore to the
present day. P/NP or letter grading.

M110. Chicana Feminism. (4) (Same as Women's
Studies M132A.) Lecture, three hours. Required:
Women's Studies 10. Examination of theories and prac-
tices of women who identify as "Chicana femi-
nist." Analysis of writings of Chicanas who do not
identify as feminist but whose practices attend to gen-
der inequities faced by Chicanas both within the Chi-
cana/Chicano community and the dominant society.
Attention to Anglo-European and Third World women.
P/NP or letter grading.

111. Chicana/Chicano and Latina/Latino Intellec-
tual Traditions. (5) Lecture, five hours. General view
of philosophical, cultural, and social thought as well
as intellectual traditions in the Americas. Roles of
writers as intellectuals and cultural/political strate-
gists, and as definers of (national) identity, social real-
ity, and struggles of liberation. Letter grading.

M112. Ethnic Groups and Their Bibliographies:
Latino History and Culture. (4) (Same as Informa-
tion Studies M111C.) Lecture, four hours. Introduction
to bibliographical and research tools and methods for
students with interests in Latino-histroy and culture.
P/NP or letter grading.

M114. Chicanos in Film/Videos. (6) (Same as Film
and Television M117.) Lectures/screenings, eight
hours; discussion, one hour. Examination of repre-
sentation of Mexican American and Chicanos in four
Hollywood genres — silent "greaser" films, social
problem films, the Western, and the gang films —
which are major genres that account for films about
"or with" Mexican Americans produced between 1908
and 1980. Examination of recent Chicanos-produced
films that subvert or "signify" on these Hollywood
genres, including Zoot Suit, The Ballad of Gregorio
tortes, and Born in East LA. Consideration of short-
er, more experimental work that critiques the Holly-
wood image of Chicanos.
119. Chicano/Latino Community Formation: Critical Perspectives and Oral Histories. (4) (Formerly numbered 197B.) Lecture, four hours. Analysis of historical formation and development of Chicano/Latino communities in the 20th century, with focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

120. Immigration and the Chicano Community. (4) Lecture, three hours. Discussion on relationship between immigration and development of the Chicana/Chicano community. Examination of U.S. immigration policy and relationship between Mexican-origin population and other Latin American immigrants.

121. Issues in Latino/Latino Poverty. (4) (Formerly numbered 121.) (Same as Urban Planning M121.) Lecture, three hours. Examination of nature and extent of urban and rural poverty confronting Latin/Latino population in the U.S. Special emphasis on anti-poverty policies of government and nonprofit organizations and social planning and economic development strategies. Attention also to literature on the underclass. Letter grading.

122. Planning Issues in Latina/Latino Communities. (4) (Formerly numbered 122.) (Same as Urban Planning M122.) Lecture, three hours. Exploration of socioeconomic, demographic, and political forces that shape low-income communities and analyses of planning intervention strategies. Emphasis on community and economic development and environmental equity. Letter grading.

123. Applied Research Methods in Latino Communities. (4) Lecture, three hours. Through combination of lectures, key readings, and several experiments, introduction to several applied research methods that have been used in producing sound and methodologically rigorous studies on poor and/or Latino communities, including important data that can be used for critical analysis and policy recommendations. Letter grading.

124. From Latin America to the U.S.: Immigration and Latino Identity. (4) (Formerly numbered 124.) (Same as Honors College M143.) Lecture, three hours. Overview of immigration in the 20th century, examining social, political, and economic contexts out of which different waves of Latin American immigration to the U.S. has occurred. Letter grading.

125. U.S./Mexico Relations. (4) Lecture, three hours. Examination of complex dynamics in relationship between Mexico and the U.S., using a political economy approach to study of asymmetrical integration between advanced industrial economies and developing countries. Letter grading.

126. Politics of Crisis: Migration, Identity, and Religion. (4) (Formerly numbered 126.) (Same as Honors College M145.) Lecture, three hours. Examination of individual and collective religious responses of Latin Americans and Latinas/Latinos in the U.S. to disasters, displacements, and fragmentations produced by conquest, colonization, underdevelopment, globalization, and migration. Letter grading.


128. Race, Gender, and U.S. Labor. (4) Lecture, four hours. Designed for juniors/seniors. Introduction to history and organization of labor movement in the U.S. and North America. Discussion of race, class, and gender issues raised within the movement, and various strategies for social change and economic equity pursued through organized labor and other means. Letter grading.

129. Field Research Methods in Labor and Workplace Studies. (5) Lecture, four hours; field studies, two hours. Designed for juniors/seniors. Discussion of roles of union and nonunion worker organizations in society and in improvement of quality of life for Latina/ Latino communities. Review and application of field research methods to labor organizations and workplace sites, explorations of labor, interview techniques, and grounded theory and other methods of data analysis. Letter grading.

130. Border Popular Culture. (4) Lecture, three hours. Introduction to a methodological approach to study of Chicano/Chicana popular culture by focusing on the border as a metaphor for community. Examination of beliefs, myths, and values of Chicano/Chicana culture and representations in icons, heroes, legends, stereotypes, and popular art forms through literature, film, video, music, mass media, and oral history.

131. Border Consciousness. (4) Lecture, three hours. Investigation through history, popular culture, and mass media of bilingual and bicultural identities produced by geographical and cultural space between Mexico and the U.S. Special attention to border consciousness as site of conflict and resistance.


133. Exhibiting Cultures. (4) Lecture, three hours. Analysis, through a cultural studies perspective, of exhibitions of Chicana/Chicana and Latino/Latina art that have occupied space in mainstream museums across the U.S. since the mid-1980s. Examination of how these shows both serve and subvert a multicultural agenda in the art world and how political identities are packaged and produced in process of exhibition-making. Field trips to local museums.

141. Chicana and Latin American Women’s Narrative. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Analyses, comparisons, and discussion of narrative literary production of U.S. Chicanas writers and their Latin American counterparts in English and Spanish, with particular focus on how each group deals with gender, ethnic, and class issues. Letter grading.

142. Mesoamerican Literatures. (4) (Formerly numbered 196F.) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Survey of premesis of Mesoamerican literatures, including myths, lyric, poetry, religious celebrations, rituals, and drama, specifically of Aztecs, especially indigenous peoples prior to European contact. Letter grading.

M145A-M145B. Introduction to Chicano Literature. (4-4) (Same as Spanish M145A-M145B.) Lecture, three hours. Requisites: Spanish 25 or 25A. Introduction to texts representative of the Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view characteristic of work written by Chicanos during the 20th century. Most required reading is in Spanish. Bilingual and English works are included and discussed. Reading and analysis of a number of important scholarly and critical statements on characteristics and development of the Chicano literary corpus. Letter grading.

M146. Chicano Narrative. (4) (Same as Spanish M146.) Lecture, three hours. Introduction to major narrative genres in Chicano/Chicana literary tradition—Corrido, Semblanza, chronicle, autobiography, novel, romance, and satire. Emphasis on way in which narrative forms are formed by and address specific social/historical problems.


149. Gendered Politics and Chicana/Latina Political Participation. (4) (Formerly numbered 197C.) Lecture, four hours. Examination of Chicanas and Latinas as participants, organizers, and leaders in communities, workplace, local government. Survey of Chicanas/Latinas in politics and as policymakers in appointed and elected offices. Analysis of gendering of politics and political behavior. Letter grading.

150. Affirmative Action: History and Politics. (4) (Formerly numbered 197D.) Lecture, four hours. Historical examination of political economic context in which affirmative action policies and programs were conceived and implemented. Review of impact on Chicanas/Chicanos, Latinas/Latinos, and other communities. Specific analysis of university admissions, hiring and contracting practices, and state initiatives. Letter grading.

154. Contemporary Issues among Chicanas. (4) (Same as Women’s Studies M132B.) Lecture, two and one-half hours. Requisites: Women’s Studies 10. Overview of conditions facing Chicanas/Latinas on the U.S. workforce, including issues on family, immigration, reproduction, employment conditions. Comparative analysis with other Latinas. P/NP or letter grading.

155. Latinos in the U.S. (4) (Same as Sociology M155A-M155B.) Lecture, three hours. Preparation: reading knowledge of Spanish (level 4). 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 the larger social structure and in comparison with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

159A. History of the Chicano Peoples. (4) (Same as History M159A.) Designed for juniors/seniors. Survey course on historical development of the Mexican (Chicano) community and people of Mexican descent (Indio-Mestizo-Mulato) north of the Rio through the 17th, 18th, and 19th centuries, with special focus on labor and politics. Provides integrated understanding of change of over time in the Mexican community by inquiry into major formative historical forces affecting the community. Social structure, economy, labor, culture, political organization, conflict, and international relations. Emphasis on social forces, class analysis, economic, labor conflict, ideas, domination, and resistance. Development related to historical events of significance occurring both in the U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and field research, and submission of a paper.
M159B. History of the Chicano Peoples. (4) (Same as History M159B.) Designed for juniors/seniors. Survey lecture course reviewing historical development of the Mexican (Chicano) community and people of Mexican descent in the U.S. through the 20th century, with special focus on labor and politics. Provides integrated understanding of change over time in the Mexican community by examining historical and policy issues affecting the community. Within a framework of domination and resistance, discussion deals with education, labor, culture, political organization, conflict, and ideology. Development relates to historical events of significance occurring both in the U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of a paper.

160. Introduction to Chicana/Chicano Speech in American Society. (4) Lecture, three hours. Survey course presenting (1) basic elements of Chicanx communication, including history of Chicanx languages, types and social functions of Chicanx speech (pachucos, Californios, Spanglish), sexist language, and multilingualism and monolingualism, and (2) major social issues associated with language use by Chicanos and other urban ethnic populations.

161. Chicano Sociolinguistics. (4) Lecture, three hours. Requisite: course 160. Exploration of various theories of sociolinguistics and social change, ethnicity, and power to develop a cohesive model of Chicano sociolinguistics. Topics include histories and typology of Chicanx language varieties, language change and maintenance issues, language attitude studies, and American social institutional (media, educational, legal) responses to Chicano presence.

162. Language Research in the Barrio. (4) Lecture/practicum, three hours. Requisite: course 160. Group-oriented practicum to gather, record, and analyze languages spoken in the Chicano community, using scientific methods. Development of research agenda and research instrument, gathering of actual speech and its analysis, and writing of final report under guidance of instructor. Student-selected research topics have included language use in the barrio, media portrayals of Latinos, and societal and educational attitudes toward language use of Latinos. Introduction to oral history, sociolinguistic interviewing, and social science methodology.

163. Bilingual Advantage: Spanish Language Topis on Chicana/Chicano/Latin American Cultures. (5) (Formerly numbered 197C.) Lecture, four hours; discussion, one hour. Requisite: Spanish 4. Review of Spanish language literature, newspaper, radio, and television, providing students with development of academic skills in Spanish. Comparison with Spanish language mass media in other parts of the world. Letter grading.

165. Language in Education. (4) Lecture, three hours. Examination of language issues pertinent to educational systems, including language inequity, literacy, testing, and socialization, as well as institutional ideologies.

168. Representations of Latinos in Print Media. (4) Lecture/research, three hours. Examination of systemic (mis)representations of Latinos by a print media source (Los Angeles Times) by means of critical discourse analysis and metaphor theory. Investigation of empirical basis for theories of racism in language in this context. Student projects range from immigration to education and crime to culture.

169. Representations of Indigenous Peoples in the Americas. (4) Lecture, four hours. Strongly recommended requisite: course 101. Introduction to different forms of representation of indigenous peoples and their presence in the Americas, with emphasis on Mesoamerican and Andean. How indigenous images are expressed, perceived, and constructed at point of contact with Europeans during development of indigenism and in current period. Discussion of how these relate to Chicana/Chicano identity construction. Letter grading.

M170. Latinos and Literacy. (5) (Same as Honors Colloquium 125B.) Seminar, three hours; field project, three hours. History, theory, and practice of literacies of Chicano and Chicana populations. Exploration of issues of literacy in Chicano and Chicana communities, including the context of university-level Spanish. Study of theory and practice of teaching literacy, including field-based work in adult literacy centers in the city. P/NP or letter grading.

172V. Culture Change and the Mexican People. (4) (Same as Anthropology M172V.) Lecture, three hours. Requisite: course 10A or 10B or Anthropology 9. Culture change theory encompasses such issues as innovation, selection, diffusion, modernization, urbanization, migration, and acculturation. Examination of methods anthropologists/ethnographers use in studying and analyzing culture change within ethnographic/historical background of the Mexican and Mexican American people to clarify social and cultural origins of modern habits and customs and, more importantly, unravel various culture change threads of that experience. Topics include technology and evolution, Indian nation-states, miscegenation, peasantry, expansionism, industrialization, immigration, ethnicity, and adaptation. Field project on some aspect of culture change related to P, NP, or letter grading.

177. Latino Social Policy. (4) (Formerly numbered 197B.) Lecture, three hours. Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in the U.S. through assessment and critical analysis of social programs, policies, and legislation. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Letter grading.


179. Language Politics and Policies in the U.S.: Comparative History. (4) (Formerly numbered 197B.) Lecture, four hours. Historical survey of language and language policies and language groups in the U.S. as context to understanding social, legal, and political constraints on bilingualism. Review of federal, state, and institutional language policies and politics, with focus on school, workplace, government, justice, and workplace. Letter grading.

180. City and Community: History of Chicana/Chicana Los Angeles, 1848 to 1945. (4) Lecture, three hours. Examination of history of Los Angeles from 1848 to 1945, with emphasis on formation of disparate and adverse communities within larger urban region of Southern California.


M186A. Beyond the Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Art M186A and World Arts and Cultures M125A.) Studio/lecture. Corequisite: course M186AL. Investigation of muralism as a method of community education, development, and empowerment. Exploration of issues through development of a large-scale collaborative digitally created mural and painting for placement in a community. Students research, design, and work with community partners. P/NP or letter grading.

M186B. Beyond the Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Art M186B and World Arts and Cultures M125B.) Studio/lecture, six hours. Requisites: courses M186A, M186AL. Corequisite: course M186B. Continuation of investigation of muralism as a method of community education, development, and empowerment. Exploration of issues through development of a large-scale collaborative digitally created mural and/or painting for placement in a community. Students research, design, and work with community partners. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

M186C. Beyond the 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. Corequisite: course M186C. Continuation of investigation of muralism as a method of community education, development, and empowerment. Exploration of issues through development of a large-scale collaborative digitally created mural and/or painting for placement in a community. Students research, design, and work with community partners. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.
M190. Bilingual Writing Workshop. (4) (Same as Women’s Studies M190.) Seminar, four hours. Writing sample required on first day of class; access to course Web page mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative expression, with focus on specific genre (i.e., autobiography, poetry, fiction). Emphasis on memory, identity, gender, and sexuality. Central theme of bilingualism as politics and aesthetic. Peer critique of weekly writing assignments. Letter grading.

193. Barrio Service Learning. (4) Seminar, one hour; field placement, eight hours. Service learning placement in community-based organization, labor union, or service-oriented nonprofit organization. Study of role that these organizations play in improvement and change of Chicana/Chicano communities. Letter grading.

197A-197Z. Special Topics in Chicana and Chicano Studies. (4 each) Lecture, three hours. Some sections may require prior coursework. Lecture or seminar format on selected topics in Chicana and Chicano studies. May be repeated for credit:

M197R. Topics in Chicana/Chicano Literature. (5) (Same as English M197R.) Seminar, three hours. Enforced prerequisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicano literature. Topics include labor and literature; Chicana/Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; literary New Mexico; specific literary genres. May be repeated for credit. P/NP or letter grading.

M197B. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as Afro-American Studies M197B.) American Indian Studies M197B, and Asian American Studies M197B.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as a case. Letter grading.

199. Independent Studies. (2 to 4) Requires: courses 10A, 10B. Limited to juniors/seniors. Intensive directed research program. May be repeated for a maximum of 8 units.

Scope and Objectives
The Department of Chemical Engineering conducts undergraduate and graduate programs of teaching and research that span the general themes of energy/environment and nanotechnology and focus on the areas of cellular/molecular bioengineering, process systems engineering, and semiconductor manufacturing. Aside from the fundamentals of chemical engineering (applied mathematics, thermodynamics, transport phenomena, kinetics, reactor engineering and separations), particular emphasis is on genomics and proteomics, biochips, metabolic engineering, molecular evolution, bio-nano-technology, air pollution, combustion, multimedia modeling, pollution prevention, aerosol processes, cryogenics, combinatorial catalysis, molecular simulation, process control, optimization/integration, semiconductor processing, chemical vapor deposition, plasma processing and simulation, electrochemistry, corrosion, and polymer engineering.

The undergraduate curriculum leads to a B.S. in Chemical Engineering, is accredited by ABET and AICHE, and includes the standard curriculum, as well as bioengineering, biomedical engineering, environmental, and semiconductor manufacturing options. The department also offers graduate courses and research leading to M.S. and Ph.D. degrees. Both graduate and undergraduate programs closely relate teaching and research to important industrial problems.

Undergraduate Study
Chemical Engineering B.S.
The goal of the ABET-accredited chemical engineering curriculum is to provide a high quality, professionally oriented education in modern chemical engineering. The bioengineering, biomedical engineering, environmental, and semiconductor manufacturing options exist as subsets of courses within the accredited curriculum. Balance is sought between science and engineering practice.

The Major
Course requirements are as follows (198 minimum units required):

1. Three general engineering courses:
   Chemical Engineering M105A, Civil and Environmental Engineering 108, Electrical Engineering 100


3. Two elective courses from Chemical Engineering 110, 111, 112, 113, 114, 115, 116, 118, 119, 125, 125, and three upper division chemistry elective courses (except Chemistry and Biochemistry 110A). An upper division life or physical sciences course may be substituted for one chemistry elective with the approval of the faculty adviser

4. Chemistry and Biochemistry 20A, 20B, 20L, 30AL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20; Mathematics 31A, 31B, 32A, 32B, 33A 33B; Physics 1A, 1B, 1C, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details

Bioengineering Option
Course requirements are as follows (204 or 205 minimum units required):

1. Three general engineering courses: Chemical Engineering M105A, Civil and Environmental Engineering 108, Electrical Engineering 100


3. Two elective courses from Chemical Engineering C115, C125, CM145 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser); one upper division microbiology, immunology, and molecular genetics or molecular, cell, and developmental biology or organismic biology, ecology, and evolution elective that requires one year of chemistry as a requisite

4. Chemistry and Biochemistry 20A, 20B, 20L, 30AL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20; Life Sciences 2, 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details

Biomedical Engineering Option
Course requirements are as follows (203 or 204 minimum units required):

1. One general engineering course: Chemical Engineering M105A


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1. Three general engineering courses: Chemical Engineering C115, C125, CM145 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser); one upper division microbiology, immunology, and molecular genetics or molecular, cell, and development biology or organismic biology, ecology, and evolution elective that requires one year of chemistry as a prerequisite and contains a laboratory component (laboratory component may be taken from a separate course).


3. Two elective courses from Chemical Engineering C112, 113, C114, C116, C118, C119, C140 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser) and two chemistry elective courses (except Chemistry and Biochemistry 110A).

4. Chemistry and Biochemistry 20A, 20B, 20L, 30AL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20; Life Sciences 1, 2, 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4A, 4BL.

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details.

Environmental Option

Course requirements are as follows (202 minimum units required):


3. Two elective courses from Chemical Engineering 113, C118, C119, C140 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser) and three advanced chemistry electives in the environmental field from Atmospheric Sciences M203A, Chemistry and Biochemistry 103, 110B, Environmental Health Sciences 240, 261, Organismic Biology, Ecology, and Evolution M127 (other advanced chemistry courses may be selected in consultation with the faculty adviser).

4. Chemistry and Biochemistry 20A, 20B, 20L, 30AL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4A, 4BL.

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details.

Semiconductor Manufacturing Option

Course requirements are as follows (202 minimum units required):


108A. Process Economics and Analysis. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 103, 104B, 106. Integration of chemical engineering fundamentals such as transport 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; outside study, eight hours. Requisites: courses 103, 106, 108A. Computer Science 10F. Introduction to application of some modern computer-aided methods to chemical engineering design problems; use of simulation programs as an automated method of performing steady state material and energy balance calculations. Letter grading.

109. Mathematical Methods in Chemical Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Preparation: working knowledge of ordinary differential equations, linear algebra, and complex variables. Discussion of theory and applications of mathematics to chemical engineering problems, with focus on numerical and analytical techniques encompassing linear and nonlinear algebraic equations, finite difference methods, and ordinary and partial differential equations. Letter grading.


C111. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102 (or Materials Science 130), 1010A. 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-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C211. Letter grading.


113. Air Pollution Engineering. (4) Lecture, four hours; preparation, two hours; outside study, six hours. Requisites: courses 101C, 103, 102. Integrated approach to air pollution engineering, including control of atmospheric pollutants, air pollution standards, air pollution sources and control technology, and relationship of air quality to emission sources. Links air pollution to multimedia environmental assessment. Letter grading.

C114. Electrochemical Processes and Corrosion. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102 (or Materials Science 130), M105A. Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes and metallic corrosion. Primary emphasis on fundamentals approach to analysis of electrochemical and corrosion processes. Specific topics include corrosion of metals and semiconductors, electrochemical metal and semiconductor surface finishing, passivity, electrodeposition, electroless deposition, battery and fuel cells, electroosmosis and bioelectrochemical processes. May be concurrently scheduled with course C214. Letter grading.

C115. Biochemical Reaction Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 101C and 106, or Chemistry 156. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course CM215. Letter grading.

C116. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: Chemistry 113A. Introduction to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for microelectronics. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C216. Letter grading.


C125. Bioseparations and Bioprocess Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 101C and 103, or Chemistry 156. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Concurrently scheduled with course CM225. Letter grading.


CM145. Molecular Biotechnology for Engineers. (4) (Same as Biomedical Engineering CM145.) Lecture, four hours; discussion, one hour; outside study, eight hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed evolution and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and biodefense, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to seniors. Individual investigation of selected topic to be arranged with a faculty member. Enrollment request forms available in department office. Occasional field trips may be arranged. May be repeated for credit. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 102. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 200 or Chemistry C223A or Physics 215A. Molecular simulation techniques for studying systems. Monte Carlo and molecular dynamics in various ensembles. Applications to liquids, solids, and polymers. Letter grading.


C211. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102 or Materials Science 130), M105A. 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-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C111. Letter grading.


C214. Electrochemical Processes and Corrosion. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102 or Materials Science 130), M105A. Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes and metallic corrosion. Primary emphasis on fundamental approach to analysis of electrochemical and corrosion processes. Specific topics include corrosion of metals and semiconductors, electrochemical metal and semiconductor surface finishing, passivity, electrodeposition, electroless deposition, battery and fuel cells, electroosmosis and biocatalysis processes. May be concurrently scheduled with course C114. Letter grading.

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CM215. Biochemical Reaction Engineering. (4) (Formerly numbered C215.) (Same as Biomedical Engineering M215.) Lecture, four hours; outside study, eight hours. Requisites: courses 101C and 106, or Chemistry 156. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course C115. Letter grading.

C216. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: Chemistry 113A. Introduction to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for microelectronics devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C116. Letter grading.

217. Electrochemical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course C114. Transport phenomena, electrochemical systems; relationships between molecular transport, convection, and electrode kinetics, along with applications to industrial electrochemistry, fuel cell design, and modern biofuel cells. Letter grading.


220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 101C. Advanced treatment of mass transfer, with applications to industrial separation processes, gas cleaning, pulmonary bioengineering, controlled release systems, and reactor design; molecular and constitutive theories of diffusion, interfacial transfer, membrane transport, convective mass transfer, concentration boundary layers, turbulent transport. Letter grading.

223. Design for Environment. (4) Lecture, four hours; outside study, eight hours. Limited to graduating chemical engineering, materials science and engineering, or Master of Engineering program students. Design of products for meeting environmental objectives; life-cycle inventories; life-cycle impact assessment; design for energy efficiency; design for waste minimization; implementation of design tools, materials selection methods. Letter grading.

CM225. Bioseparations and Bioprocess Engineering. (4) (Formerly numbered C225.) (Same as Biomedical Engineering M225.) Lecture, four hours; outside study, eight hours. Requisites: courses 101C and 103, or Chemistry 156. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Concurrently scheduled with course C125. 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 gases: excitation, ionization, accommodation and heterogeneous reactions. Applications to air pollution control and to catalysis. Letter grading.


234. Plasma Chemistry and Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: 282B. Design for graduate chemistry or engineering students. Application of chemistry, physics, and engineering principles to design and operation of plasma and ion-beam reactors used in etching, deposition, oxidation, and cleaning of materials. Examination of atomic, molecular, and ionic phenomena involved in plasma and ion-beam processing of semiconductors, etc. Letter grading.


CM245. Molecular Biotechnology for Engineers. (4) (Same as Biomedical Engineering CM245.) Lecture, four hours; discussion, one hour; outside study, eight hours. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA and RNA 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.

250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 108B. Application of optimization methods in chemical process design; computer aids in process engineering; process modeling; systematic flowsheet invention; process synthesis; optimal design and operation of large-scale chemical processing systems. Letter grading.


270. Chemical Engineering Principles of Semi-conductor Manufacturing. (4) Lecture, four hours; outside study, eight hours. Requisite: one of the Biomedical Engineering C240A or Chemical and Aerospace Engineering M270A. Jordan form; solution energy of state equations; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.


283C. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M282A, M282B. Design for graduate students. Introduction to advanced dynamical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) linear systems and stability theory (basic results on Banach and Hilbert spaces, semigroup theory, convergence theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin methods, proper orthogonal decomposition), (3) nonlinear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.


290. Special Topics. (2 to 4) Seminar, four hours. Requisites: for each offering, to be determined by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane separations, advanced chemical engineering analysis, polymers, optimization in chemical process design. May be repeated for credit with topic change. Letter grading.

M297. Seminar: Systems, Dynamics, and Control Topics. (Same as Electrical Engineering M248S and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.
Scope and Objectives
Chemistry is concerned with the composition, structure, and properties of substances, the transformations of these substances into others by reactions, and the kinds of energy changes that accompany these reactions. The department 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).

Undergraduate Study
Admission
Students entering UCLA directly from high school who declare a Chemistry or Biochemistry major at the time of application are automatically admitted to that major. UCLA students who wish to enter one of the majors must have a minimum grade of C– in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students
To be admitted to the departmental majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Biochemistry majors must also complete courses equivalent to Life Sciences 2 and 3; Chemistry majors should have completed the equivalent of Mathematics 32B.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should consult the Undergraduate Advising Office in 4009 Young Hall for assistance with the articulation of transfer coursework.

Senior Lecturer S.O.E.
Arlene A. Russell, Ph.D.
Senior Lecturer
Betty A. Luceigh, Ph.D.
Lecturers
Marjorie A. Bates, Ph.D.
Max Kopelevich, Ph.D.
Adjunct Professor
R. Stanley Williams, Ph.D.
Adjunct Associate Professor
Robert W. Armstrong, Ph.D.

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Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should consult the Undergraduate Advising Office in 4009 Young Hall for assistance with the articulation of transfer coursework.
Chemistry Diagnostic Examination for First-Quarter General Chemistry

For the 2003-04 academic year, the Chemistry Diagnostic Examination is not required for enrollment in Chemistry and Biochemistry 14A, 17, 20A, or 20AH. For 2004-05 examination requirements, refer to http://www.chem.ucla.edu/dept/Ugrad/chemexam.html.

Students enroll in Chemistry and Biochemistry 14A, 20A, or 20AH, depending on major.

Students who feel they have a weak background in chemistry may enroll in Chemistry and Biochemistry 17, offered only in Fall Quarter on a Passed/Not Passed basis. Course 17 carries no graduation credit but does displace 4 units on the UCLA Study List.

Advanced Placement in Chemistry

Students who have taken the Advanced Placement (AP) Chemistry Test 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 Test, 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 prerequisite 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).

Undergraduate Majors

The department offers three majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, and General Chemistry. 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.

Courses 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., 190, 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 4009 Young Hall.

Chemistry B.S.

The B.S. degree program is for students who intend to pursue a career in chemistry.

Chemistry Concentration

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 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, C172, and two other upper division or graduate courses in the department, including at least one additional laboratory course from 136, 144, 154, C174, 184, C185.

Physical Chemistry Concentration

The physical chemistry concentration is designed primarily for students who are interested in attending graduate school in physical chemistry/physics.

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 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, C172; 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 at http://www.chem.ucla.edu/dept/Ugrad/ 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 B.S.

The B.S. degree program is for students preparing for careers in biochemistry or other fields requiring extensive preparation in both chemistry and biology.

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Life Sciences 2, 3, 4; Mathematics 31A, 31B, 32A (33A strongly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH) and 4BL, or 6A, 6B, and 6C.

The Major

Required: Chemistry and Biochemistry 110A, 115A, 153B, 153C, 153L, 154, 156, 171; one additional upper division or graduate course in chemistry and biochemistry; and four elective upper division or graduate courses (16 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 and 101L highly recommended). Refer to the Undergraduate Advising Office website at http://www.chem.ucla.edu/dept/Ugrad/ for a list of approved electives.

General Chemistry B.S.

The B.S. degree program 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.

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major

Required: Chemistry and Biochemistry 110A, 153A, 153L, 171; three additional upper division courses in the department (at least one must be a laboratory course); six additional upper division courses. 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 major and requires the approval of the faculty adviser.

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, C160. 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, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Introduction to Organic 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.

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.

14A. Chemical Structures and Equilibria. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one-half years of high school mathematics. Successful completion of Chemistry Diagnostic Examination. Not open to students with credit for course 20A. Introduction to physical and general chemistry needed for the understanding of the chemistry of life sciences. Quantum chemistry, atoms, atomic properties, and chemical bonding in molecules, phase changes, equilibria, and acids and bases. P/NP or letter grading.


14BL General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. Enforced requisites: course 14A with a grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Introduction to volumetric, spectrophotometric, and potentiometric analysis. Use and preparation of buffers and pH meters. Synthesis and kinetics techniques using compounds of interest to students in life sciences. P/NP or letter grading.

14C. Organic Molecular Structures and Interactions. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 14B with a grade of C– or better. Not open to students with credit for course 30A. NMR and mass spectrometry, conformational analysis, aromatics, oxygen- and nitrogen-containing organic molecules, transition metals and organometallics, supramolecular chemistry and molecular interactions. P/NP or letter grading.

14CL General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced requisites: courses 14B and 14BL with grades of C– or better. Enforced corequisite: course 14C. Synthesis and analysis of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectrometry, UV, NMR, and IR spectroscopy, optical activity, electrophoresis, P/NP or letter grading.

14D. Organic Reactions, Pharmaceutical Structures, and Activities. (4) (Formerly numbered 140.) Lecture, three hours; discussion, one hour. Enforced requisites: course 14C with a grade of C– or better. Organic reactions, nucleophilic and electrophilic substitutions and additions; electrophilic aromatic substitutions, carbonyl reactions, catalysis, molecular basis of drug action, and organic chemistry of pharmaceuticals. P/NP or letter grading.

15. Survey of Organic Chemistry and Biochemistry. (4) Enforced requisites: former course 11A with a grade of C– or better. Not open to students with credit for former course 11A or 11B. Recent developments in chemistry of enzymes and nucleic acids, the chemistry of proteins in prenursing, prephysical therapy, and premedical hygiene. Does not satisfy requirements for admission to medical and dental schools. Introduction to structures and reactions of organic compounds, particularly respect to their roles and transformations in living systems.

15L. Laboratory in Elementary Organic Chemistry and Biochemistry. (1) Laboratory, four hours. Enforced corequisite: course 15 with a grade of C– or better. Not does not satisfy requirements for admission to medical and dental schools. Introduction to quantitative work with aqueous solutions and to preparation, isolation, and characterization of organic compounds, particularly some of those important in living systems.

17. Chemical Principles. (No credit) Lecture, four hours; laboratory, two hours. Chemistry 17 displaces 4 units on student’s Study List but yields no credit toward a degree. Introduction to chemical principles: numbers, measurements, chemical calculations, gas laws, solutions, acids, bases, and salts, molecular structure, and periodicity; and problem solving; introduction to chemistry laboratory practice. P/NP grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one-half years of high school mathematics. Recommended: high school physics. Enforced requisites: successful completion of Chemistry Diagnostic Examination. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy. P/NP grading.

20AH. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and three and one-half years of high school mathematics. Enforced requisites: successful completion of Chemistry Diagnostic Examination. Honors course parallel to course 20A. P/NP or letter grading.

20B. Chemical Energetics and Change. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 20A or 20AH, and Mathematics 31A, with grades of C– or better. Second term of general chemistry. Intermolecular forces and organization, phase changes and thermodynamics, solution equilibria, reaction rates and laws. P/NP or letter grading.

20BH. Chemical Energetics and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 20A or 20AH, and Mathematics 31A, with grades of C– or better. Second term of general chemistry. Intermolecular forces and organization, phase changes and thermodynamics, solution equilibria, reaction rates and laws. P/NP or letter grading.

20CL. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, three hours. Enforced requisites: course 20A with a grade of C– or better. Enforced corequisite: course 20B. Use of the balance, volumetric techniques, volumetric and potentiometric analysis, Beer’s law, applications for environmental analysis and materials science. P/NP or letter grading.

30A. Chemical Dynamics and Reactivity: Introduction to Organic Chemistry. (4) (Formerly numbered 30.) Lecture, three hours; discussion, one hour. Preparation: high school mathematics. Enforced requisites: course 20B with a grade of C– or better. First term of organic chemistry. Mechanics of chemical reactions, including redox, elimination, addition, substitution, and radical processes, and enantioselectivity. P/NP or letter grading.

30AH. Chemical Dynamics and Reactivity: Introduction to Organic Chemistry (Honors). (4) Enforced requisites: course 20B or 20BH with a grade of C– or better. Honors course parallel to course 30A. P/NP or letter grading.
110A. Physical Chemistry: Chemical Thermodynamics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 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 6A, 6B, and 6C (may be taken concurrently). Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamics of solutions, electrochemistry. P/NP or letter grading.


C115A-C115B. Quantum Chemistry. (4-4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A. Recommended: course 14D or 30B with a grade of C– or better. Lecture on modern synthetic reactions and processes, with emphasis on stereo-specific methods for carbon-carbon bond formation. Laboratory methods of synthetic organic chemistry, including reaction techniques, synthesis of natural products, and molecules of theoretical interest. P/NP or letter grading.

C145. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic structures and properties. Computational modeling methods, including laboratory experience with force-field and quantum mechanical computer calculations. Concurrently scheduled with course C245. P/NP or letter grading.

153A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (4) Lecture, four hours; discussion, one hour; tutorial, one hour. Requisite: course 14D or 30B with a grade of C– or better. Recommended: Life Sciences 2, 3. Honors course parallel to course 153A. P/NP or letter grading.

153B. Biochemistry: DNA, RNA, and Protein Synthesis. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH, Life Sciences 2, 3. Nucleotide metabolism; DNA replication; DNA repair; transcription machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153BH. Biochemistry: DNA, RNA, and Protein Synthesis (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 14D or 30B with a grade of C– or better. Recommended: Life Sciences 2, 3. Honors course parallel to course 153B. P/NP or letter grading.

153C. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation. (4) Lecture, three hours; discussion, one hour. Requisite: course 153A or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation (Honors). (4) Lecture, three hours; discussion, two hours. Requisite: course 153A or 153AH. Honors course parallel to course 153C. P/NP or letter grading.


153L. Biochemical Methods I. (4) Lecture, two hours; laboratory, four hours. Enforced requisites: courses 14CL and 14D, or 30B and 30BL, or 153A or 153AH (may be taken concurrently), with grades of C– or better. Integration of term-long project involving characterization of an enzyme purified from meat obtained at local butcher. Techniques include ammonium sulfate fractionation, affinity chromatography, protein and enzyme assays; polyacrylamide gel electrophoresis, gel exclusion chromatography, and enzyme kinetic analysis. P/NP or letter grading.
154. Biochemical Methods II. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 153A or 153AH, 153B or 153BH, and 153L with grades of C– or better. Recommended: course 156. Two to three major laboratory projects using biochemical laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription, regulation of transcription, and structural analysis, including atomic absorption spectrophotometry, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.

CM155. Biological Catalysis. (4) Same as Molecular, Cell, and Developmental Biology CM160. (Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereochemistry, chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level. Concurrently scheduled with course CM255.

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 structural, statistical, and electrochemical methods of biochemistry.


CM159B. Mechanisms in Regulation of Transcription II. (2) Same as Biological Chemistry CM159B. Second five weeks. Lecture, four hours. Requisite: course CM159A. Not open to graduate students. Eukaryotic general transcriptional apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin in regulation of transcriptional factors as targets of signal transduction pathways; transcription factors in embryogenesis. Concurrently scheduled with course CM259B. P/NP or letter grading.

C160. Bioinformatics and Genomics. (4) Lecture, three hours; discussion, one hour. Requisite: course CM159A. Not open to graduate students. Genomics and bioinformatics results and methodologies, with emphasis on concepts behind rapid development of these fields. Focus on how to think genomically via case studies showing how genomics questions map to computational problems and their solutions. Concurrently scheduled with course CM260. P/NP or letter grading.

C161A. Plant Biochemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course CM153C. Introduction to distinctive features of plant biochemistry. Topics include photosynthesis, nitrogen metabolism, plant cell wall metabolism, and secondary metabolism in relation to stress. Concurrently scheduled with course C261A.

C165. Metabolic Control by Protein Modification. (2) First five weeks. 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 C265.


171. Intermediate Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 30B with a grade of C– or better. Chemical bonding; structure and bonding in the solid state; main group, transition metal, lanthanide and actinide compounds and reactions; catalysis, spectroscopy, special topics. P/NP or letter grading.

C172. Advanced Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 171 with a grade of C– or better. Systematic approach to inorganic chemistry; mechanisms of inorganic reagents; bonding and spectroscopy of organometallic compounds, transition metals in catalysis and biology. Concurrently scheduled with course C273. P/NP or letter grading.

C174. Inorganic and Metalorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30B, 30BL, and C172 with grades of C– or better. Synthesis of inorganic compounds, including air-sensitive materials; Schlenk techniques; chromatographic and ion exchange methods; spectroscopic characterization and literature applications. Concurrently scheduled with course C276. P/NP or letter grading.

C175. Inorganic Reaction Mechanisms. (4) Lecture, three hours. Requisites: courses 110A, 110B, 113A, C172. Survey 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, reactivity relationships, isomerization, and racemization reactions; stereoelectronic species. May be concurrently scheduled with course C275. P/NP or letter grading.

C176. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: courses 113A, C172. Group theoretical methods; molecular orbital theory; ligand-field theory; electronic spectroscopy; vibrational spectroscopy. May be concurrently scheduled with course C276A. P/NP or letter grading.

C180. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course C172. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relation to chemical, optical, transport, and magnetic properties, leading to a deeper understanding of these materials. Concurrently scheduled with course C280. P/NP or letter grading.

C181. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization methods, and special topics such as conductive and biomedical polymers and polymeric reagents in synthesis. Concurrently scheduled with course C281. P/NP or letter grading.

184. Chemical Instrumentation. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: course 110A with a grade of C– or better. Theory and practice of instrumental analysis and structural analysis, including atomic absorption spectrophotometry, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.


199A-199F. Special Courses in Chemistry. (1 to 4 each) Hours to be arranged.

199A. Directed Individual Studies or Research for Undergraduate Students. (2 to 8) Designed for departmental juniors with at least 3.0 grade-point average in major and departmental seniors. To be arranged with faculty member who directs the research. Additional information may be obtained from undergraduate office. May be repeated for a maximum of 4 units. P/NP grading.

199B. Directed Individual Studies or Research for Undergraduate Students. (2 to 4) Requisite: course 199A (8 units). Designed for departmental juniors with at least 3.0 grade-point average in major and departmental seniors. To be arranged with faculty member who directs the research. Additional information on requirements, enrollment petitions, and written proposal deadlines may be obtained from undergraduate office. May be taken for a maximum of 4 units. P/NP or letter grading.

Graduate Courses

202. Bioinformatics Interdisciplinary Research Seminar. (4) 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.

203. Research Ethics Seminar. (2) Seminar, 90 minutes. Limited to students in UCLA program in Cellular and Molecular Biology Predoctoral Training. Required of all first- and second-year students in program. Informal discussions on case histories for responsible conduct of research. May be repeated for credit. S/U grading.

204. Student Research Seminar. (2) Seminar, one hour. Limited to students supported by UCLA program in Cellular and Molecular Biology Predoctoral Training. Required of all third-year students. Research seminar presented by students in their third year of support in program. S/U grading.

205. Introduction to Chemistry of Biology. (4) Lecture, three hours. Overview of biochemistry, pharmacology, and physiology, with emphasis on chemical interactions at molecular level.
206. Chemistry of Biology Seminar. (2) Discussion, three hours. Limited to students supported by UCLA program for Pre-biochemistry Interface Pre-doctoral Training. Current research topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

207. Organometallic Chemistry. (4) Lecture/discussion, three hours. Requisite or corequisite: course 224A. Survey of synthesis, structure, and reactivity (emphasizing a 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.

208. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, IPC, GC/MS, LC/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C108. S/U or letter grading.

210. Scientific Glassblowing. (1) Laboratory, one hour. Instruction in safe handling and manipulation of scientific glassware. Introduction to basic glassblowing techniques such as tubing, annealing, and fire-polishing of glass. Proper cutting of glass and repairing of cracks. S/U grading.

213B. Physical Chemistry: Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour. Requisite: course 113A. Interaction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibrations in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C113B. Independent study project required of graduate students. S/U or letter grading.

215A-C215B. Quantum Chemistry: Methods. (4-4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A. Recommended: knowledge of differential equations equivalent to Mathematics 135A or Physics 131 and of analytic mechanics equivalent to Physics 105A. Course C215A or Physics 115B is requisite to C215B. Students entering course C215A are normally expected to take course C215B the following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; angular momenta; hydrogen; spectroscopy; magnetic resonance; electronic excitation and de-excitation by light; atomization energy; molecular spectra; chemical bonding. May be concurrently scheduled with courses C115A-C115B.


220D. Molecular Spectra, Diffraction, and Structure. (4) Lecture, three hours; discussion, one hour. Requisites: course C215B, Physics 131. Selected topics from electronic spectra of atoms and molecules; vibrational, rotational, and Raman spectra; magnetic resonance spectra; X-ray, neutron, and electron diffraction; coherence effects. S/U or letter grading.

221A-219Z. Seminars: Research in Physical Chemistry. (2 each) Seminar, three hours. Advanced study and analysis of current topics in physical chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

2219C. Physical Chemistry of Complex Fluids.

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: Mathematics 3C, Physics 62. Selected topics from principles of biological structure; structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonics analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

230D. 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 on 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.

232. Stereochemistry and Conformational Analysis. (4) Lecture/discussion, three hours. Requisites or corequisites: courses C143A, Molecular symmetry, chirality, prochirality, stereochemistry in vinyl polymers, stereochemistry and analysis of current topics in organic chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

235J. Kinetic, Thermodynamic, and Interfacial Effects in Materials. (4) Lecture, 3 hours. Emphasis on interfacial effects. Molecular orbital theory; photochemistry; acid catalysis; linear free energy relationships; isotope effects. S/U or letter grading.

236. Spectroscopic Methods of Organic Chemistry. (4) Lecture, three hours. Requisite: course C215B. An introduction to modern spectroscopy. Bonding of radicals; ultraviolet and fluorescent spectra; theoretical aspects of electron spin resonance; bonding of radioisotopes; infrared spectroscopy; Raman spectroscopy; magnetic resonance; photochemistry; vibration of diatomic molecules, and the perfect gas. Applications of classical and statistical thermodynamics selected from radiative decay, vibrational relaxation, relaxation rates, the imperfect gas, nonelectrolyte and electrolyte solutions, nuclear phenomena, high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B.


226A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparatory programming experience in either BASIC, FORTRAN, C, C++, Java, or PASCAL. Requisites: course 110A, Mathematics 33B. Theoretical, numerical, and programming tools for constructing new chemical ap- plications, including simple force fields and resulting applications of quantum mechanics for simple molecules, simple ab-initio methods for organic molecules and nucleotides, and classical dynamics and spectroscopy. Concurrently scheduled with course C126A. S/U or letter grading.

228. Chemical Physics Seminar. (2) Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U 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: Mathematics 3C, Physics 62. Selected topics from principles of biological structure; structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonics analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

230D. 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 on 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.

232. Stereochemistry and Conformational Analysis. (4) Lecture/discussion, three hours. Requisites or corequisites: courses C143A, Molecular symmetry, chirality, prochirality, stereochemistry in vinyl polymers, stereochemistry and analysis of current topics in organic chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

235J. Kinetic, Thermodynamic, and Interfacial Effects in Materials. (4) Lecture, 3 hours. Emphasis on interfacial effects. Molecular orbital theory; photochemistry; acid catalysis; linear free energy relationships; isotope effects. S/U or letter grading.

236. Spectroscopic Methods of Organic Chemistry. (4) Lecture, three hours. Requisite or corequisite: course C243A. Problem solving using proton and carbon 13 nuclear magnetic resonance, infrared spectroscopy, and mass spectrometry; new techniques in NMR, IR, and MS, with emphasis on Fourier transform NMR.

241A-241Z. Special Topics in Organic Chemistry. (2 to 4 each) Requisite or corequisite: course C243A. Each course encompasses a recognized specialty in organic chemistry, generally taught by a staff member whose research interests embrace that specialty.


243A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30C and 30CL (may be taken concurrently), 110B, 113A, with grades of C– or better. Mechanisms of organic reactions. Acidity and acid catalysis; linear free energy relationships; isotope effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C143A. S/U or letter grading.

243B. Organic Chemistry: Mechanism and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organi reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C143B.
CM260. Bioinformatics and Genomics. (4) (Same as Human Genetics M260.) Lecture, three hours; discussion, one hour. Genomics and bioinformatics results and methodologies, with emphasis on concepts behind rapid development of these fields. Focus on how to think genomically via case studies showing how genomics questions map to computational problems and their solutions. Concurrently scheduled with course C160. S/U or letter grading.

C261A. Plant Biochemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 153C. Introduction to distinctive features of plant biochemistry and cellular biology. Topics include photosynthesis, nitrogen metabolism, plant cell wall metabolism, and secondary metabolism in relation to stress. Concurrently scheduled with course C161A.

262. Biochemistry and Molecular Biology of Protein Translocation Systems. (3) Lecture, two hours; discussion, two hours. Requisites: courses CM253, or 269A through 269D. Protein translocation into nucleus, mitochondria, peroxisome, chloroplast, endoplasmic reticulum, and protein export in bacteria. Letter grading.

M263. Metabolism and Its Regulation. (4) (Same as Biological Chemistry M263.) Lecture, three hours. Requisite: course CM150. Topics include: regulation of energy metabolism in relation to physiological function. Letter grading.

C265. Metabolic Control by Protein Modification. (2) (First five weeks) Lecture, four hours; discussion, two hours. Requisites: courses CM253, or 269A through 269D. Biochemical basis of controlling metabolic pathways by postranslational modification of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course C165.


M267. Cell Structure, Signaling, and Development. (6) (Same as Biological Chemistry CM267, Human Genetics CM267, and Molecular, Cellular, and Developmental Biology CM223.) Lecture, five hours. Requisites: courses 153A, 153B, 153C. Recommended: course CM153G. Cell cycle regulation; chromosomal organization and DNA repair within the cell; apoptosis; extracellular matrix, cell to cell communication and signal transduction; cell transformation and apoptosis; molecular aspects of development, differentiation, and cancer. Letter grading.

268. Biochemistry Research Seminar. (2) 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.

269. Protein Structure. (2) Lecture, three hours; discussion, two hours. Requisites: courses 153A, 153B, 153C, or 156, or Biological Chemistry 201A and 201B. Three-dimensional structure of proteins. Determination of DNA and RNA. RNA-catalyzed processes, 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.


CM259B. Mechanisms in Regulation of Transcription II (2) (Same as Biological Chemistry CM259B.) Second five weeks. Lecture, four hours. Requisite: course CM259A. Eukaryotic general transcriptional factors as targets of signal transduction pathways. Transcription factors in embryogenesis. Concurrently scheduled with course CM159B. S/U or letter grading.

C44A. Organic Synthesis: Methodology and Stereoechemistry. (4) Modern synthetic reactions and transformations involving organic substrates; special emphasis on regents involving asymmetric induction and stereoselective synthesis of structurally complex target molecules.


C245. Theoretical and Computational Organic Chemistry. (4) (Formerly numbered 245.) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic structures and re-activities. Computational modeling methods, includ-ing laboratory experience with force-field and quan-


271A-271Z. Advanced Topics in Inorganic Chemistry. (2 to 4 each) Each course encompasses a recognized specialty in inorganic chemistry, generally taught by a staff member whose research interests embrace that specialty.

272A-272Z. Seminars: Research in Inorganic Chemistry. (2 each) Seminar, three hours. Advanced study and analysis of current topics in inorganic chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

272A. Chemistry of Materials.

272B. Metalorganic, Inorganic Biometalorganic Chemistry.

272C. Inorganic Spectroscopy.

272D. Inorganic Chemistry and Biology of Transition Metals and Oxygen.

272E. Organometallic Synthesis and Chemical Vapor Deposition.

272G. Issues in Chemical Education.

272H. Catalysis and Small Molecule-Activation Mediated by Transition-Metal Complexes.

C273. Advanced Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 171 with a grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure-reactivity relationships, vibrational spectra of complexes, electronic structure and ligand-field theory, mechanisms of inorganic reactions, bonding and spectroscopy of inorganic compounds, transition metals in catalysis and biology. Concurrently scheduled with course C172. S/U or letter grading.

C274. Inorganic and Metalorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30B, 30BL, and C172 with grades of C– or better. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization methods, and special topics such as conductive and biomedical polymers and polymeric reagents in synthesis. Concurrently scheduled with course C180. S/U or letter grading.


C276B. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance, vibrational and surface science methods, to 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 analysis, electron-density, and least-squares refinement, and morphous replacement, crystallographic refinement, error analysis, and common pitfalls. S/U or letter grading.

278. Inorganic Chemistry Student Seminar. (2) Seminar, presenting research of Ph.D. students, post-doctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

279. Bioinorganic Chemistry. (4) Lecture, three hours. Requisite: courses 110A, and 156 or C172. Role of metal ions in biology; introduction to metalloenzymes and metalloproteins; metal ion interactions with nucleic acids; metal ion metabolism. S/U or letter grading.


C281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization methods, and special topics such as conductive and biomedical polymers and polymeric reagents in synthesis. Concurrently scheduled with course C181. S/U or letter grading.

282. Introduction to Inorganic Chemistry Research. (2) Lecture, 90 minutes. Preparation: one introductory lower division course (including laboratory) each of chemistry, life sciences, and physics and at least two hours of inorganic chemistry, designed primarily for entering graduate inorganic chemistry students. S/U grading.


M370A. Integrated Science Instruction Methods. (4) (Same as Earth and Space Sciences M370A and Engineering 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, and history of science education. S/U or letter grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Earth and Space Sciences M370B and Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: course M370A or Earth and Space Sciences M370A or Physics M370A (or former course 370). Application of learning theory to science instruction and classroom management. Includes techniques 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 a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

400. Safety in Chemical and Biochemical Research. (2) Survey of safe laboratory practices for experimental research in organic, inorganic, and physical chemistry. Topics include laser safety, cryogenic hazards, high- and low-pressure experimentation, gas and carcinogen handling, chemical spills, fire extinguishing, and chemical disposal. S/U grading.

495. Teaching College Chemistry. (2) Seminar, two hours; discussion, two hours; 20 hours training during week prior to Fall Quarter. Course for teaching assistants designed to deal with problems and techniques of teaching college chemistry. S/U grading.

596. Directed Individual Study or Research. (2 to 16) To be arranged with faculty member who directs the study or research. May be repeated for credit. S/U grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 4) S/U grading.

598. Research and for Preparation of M.S. Thesis. (2 to 16) Each faculty member supervises research of M.S. students and holds research group meetings, seminars, and discussions with the students.

599. Research and for Preparation of Ph.D. Dissertation. (2 to 16) Each faculty member supervises research of Ph.D. students and holds research group meetings, seminars, and discussions with the students.

Chemistry/ Materials Science

Interdepartmental Program

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Yang Yang, Ph.D., Cochair

Faculty Advisory Committee

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Richard B. Kaner, Ph.D., Cochair

James K. Gimzewski, Ph.D.

Mark S. Goorsky, Ph.D.

James R. Heath, Ph.D.

Richard B. Kaner, Ph.D.

Sarah H. Tobert, Ph.D.

King-Ning Tu, Ph.D.

Fred Wudl, Ph.D.

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Jeffrey I. Zink, Ph.D.

Affiliated Faculty

Professors

Bruce S. Dunn, Ph.D. (Materials Science and Engineering)

James K. Gimzewski, Ph.D. (Chemistry and Biochemistry)

Mark S. Goorsky, Ph.D. (Materials Science and Engineering)

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Richard B. Kaner, Ph.D. (Chemistry and Biochemistry)

King-Ning Tu, Ph.D. (Materials Science and Engineering)

Fred Wudl, Ph.D. (Chemistry and Biochemistry)

Yang Yang, Ph.D. (Materials Science and Engineering)
Civil and Environmental Engineering

Scope and Objectives

The Chemistry/Materials Science major is designed for students who are interested in solid-state chemistry, the preparation of engineering materials such as semiconductors, glasses, ceramics, metals, and polymers, the reactivity of such materials in different environments, and how chemical compositions affect properties. It provides appropriate preparation for graduate study in many fields emphasizing interdisciplinary research involving chemistry, engineering, and applied science.

Undergraduate Study

Chemistry/Materials Science B.S.

Preparation for the Major


Transfer Students

To be admitted as Chemistry/Materials Science majors, transfer students with 90 or more minimum units required:

1. Eight core courses: Chemical Engineering 120, 130, 135A, 151, 153; one course in- involving a major design project from Civil Engineering or for more advanced study.

2. Civil and Environmental Engineering 120, 121, 130, 135A, 151, 153; one course in- involving a major design project from Civil Engineering or for more advanced study.

3. Twenty-eight elective units, to be selected from the courses listed below, which must include 8 units of laboratory:

   - Geotechnical Engineering: Civil and Envi- ronmental Engineering 125, 128L, Earth and Space Sciences 100, 139
   - Structures: Civil and Environmental Engi- neering 135B, 135C, 135L, 137, 137L, 141, 142, 142L, 143, 144, 147
   - Systems Analysis: Civil and Environmental Engineering 106A
   - Transportation Engineering: Civil and Environ- mental Engineering 180
   - Water Resources and Environmental Engi-

The Major

Course requirements are as follows (181 minimum units required):

1. Eight core courses: Chemical Engineering M105A or Mechanical and Aerospace Engineering M105A, Civil and Environmental Engineering 1, 108, Electrical Engineering 100, 103, Materials Science and Engineering 14, Mechanical and Aerospace Engineering 102, 103

2. Civil and Environmental Engineering 120, 121, 130, 135A, 151, 153; one course in- volving a major design project from Civil Engineering or for more advanced study.

3. Twenty-eight elective units, to be selected from the courses listed below, which must include 8 units of laboratory:

   - Geotechnical Engineering: Civil and Envi- ronmental Engineering 125, 128L, Earth and Space Sciences 100, 139
   - Structures: Civil and Environmental Engi- neering 135B, 135C, 135L, 137, 137L, 141, 142, 142L, 143, 144, 147
   - Systems Analysis: Civil and Environmental Engineering 106A
   - Transportation Engineering: Civil and Environ- mental Engineering 180
   - Water Resources and Environmental Engi-

4. Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Civil Engineering.

Civil and Environmental Engineering

Lower Division Courses

1. Introduction to Civil Engineering. (2) Lecture, two hours. Introduction to scope of civil engineering profession, including earthquake, environmental, geotechnical, structural, transportation, and water resources engineering. P/NP grading.

2. Fundamentals of Environmental Engineering Science. (4) Lecture, four hours; outside study, eight hours. Quantitative analysis of sources, transformations, and effects of pollutants in water, air, and soil. Topics include drinking water, wastewater, hazardous wastes, radioactive wastes, and atmospheric emissions. P/NP or letter grading.

3. Introduction to Computing for Civil Engineers. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Introduction to programming using FORTRAN and MATLAB. Selected topics in programming, with emphasis on numerical techniques as applied to engineering programs. Letter grading.

Upper Division Courses

101. Statics. (2) Lecture, two hours; outside study, four hours. Requisites: Mathematics 31B, Physics 1B. Introduction to equilibrium principles for engineered systems. Study of internal forces and moments in beams, including relationships for shear, axial load, and moment diagrams. Introduction to support conditions and geometric properties of structural members. Letter grading.


120. Principles of Soil Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 108. Soil as a foundation for structures and as a material of construction. Soil formation, classification, physical and mechanical properties, soil compaction, earth pressure, consolidation, and shear strength. Letter grading.

121. Design of Foundations and Earth Structures. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 120. Design methodologies 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.


128L. Soil Mechanics Laboratory. (4) Lecture, one hour; laboratory, eight hours; outside study, three hours. Requisite or corequisite: course 120. Laboratory experiments to be performed by students to obtain soil properties. Determination of shear strength and modulus of elasticity. Letter grading.

130. Elementary Structural Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Analysis of stress and strain, phenomenological material behavior, extension, bending, and transverse shear stresses in beams with general cross-sections, shear center, deflection of beams, torsion of beams, warping, column instability and failure. Letter grading.


135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 11, 15, 108. Introduction to structural analysis; classification of structural elements; analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force methods; introduction to displacement method and energy concepts. Letter grading.

135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 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.

135C. Finite Element Methods. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 130, 135B. Direct approach for truss analysis, strong form and weak form, approximation functions for finite element methods, weighted residual methods, Ritz method, variational method, convergence criteria and rate of convergence, natural coordinates and shape functions, isoparametric finite elements, finite element formulation of multidimensional heat flow and elasticity, numerical integration and approximation properties, finite element formulation of beam. Letter grading.


137. Elementary Structural Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 135B. Basic structural dynamics course for civil engineering students. Elastic free, forced vibration, and earthquake response spectra analysis for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Letter grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite or corequisite: course 137. Calibration of instrumentation for dynamic measurements. Determination of natural frequencies and damping factors from free vibration. Determination of natural frequencies, mode shapes, and damping factors from forced vibrations. Dynamic simulation. Letter grading.


142L. Reinforced Concrete Structural Laboratory. (4) Lecture, two hours; outside study, four hours. Requisite: course 142. Limited enrollment. Design considerations used for reinforced concrete beams, columns, slabs, and joints evaluated using analysis and experiments. Links between technical theory, building codes, and experimental results. Letter grading.


147. Design and Construction of Tall Buildings. (4) Lecture, four hours; outside study, eight hours. Requisite: course 141. Limited enrollment. Introduction to total design process and professional participants. Systematic presentation of advantages and limitations of different structural forms and systems. Identification of critical design factors influenced by terrain, geology, and weather. Construction site visits, costing, and scheduling. Letter grading.

150. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mechanical and Aerospace Engineering 103. Precipitation, evaporation and plant transpiration, infiltration and recharge, climatology, stream flow analysis, flood frequency analysis, groundwater, snow hydrology, hydrologic simulation. Letter grading.

151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mechanical and Aerospace Engineering 103. 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.


154. Introduction to Environmental Aquatic Chemistry. (4) Lecture, four hours; outside study, eight hours. Requisites: course 153, Chemistry 20A, 20B, Mathematics 31A, 31B, Physics 1A, 1B. Description of chemical behavior of metals and anthropogenic inorganic compounds in natural freshwater/freeze surfaces and water treatment; acid-base chemistry, alkalinity, complexation, precipitation, sorption, photochemistry, disinfection by-products, ozonation. Selected global chemical cycle(s). Letter grading.

155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 153. Biological, chemical, and physical methods used to modify water quality. Fundamentals of phenomena governing design of engineered systems for water and wastewater treatment systems. Field trip. Letter grading.

156A. Environmental Chemistry Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisites: course 153 (may be taken concurrently). Exploration of chemical and biological processes in natural freshwater/saltwater environments and groundwaters. Concepts to be applied to analysis of “real” water samples in course 156B. Letter grading.

156B. Water Quality Control Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisites: course 156A, Chemistry 20A, 20B. Chemical, physical, and biological processes, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbially generated compounds. Analysis of relevancies of these measurements to water resource engineering. Letter grading.

157A. Design of Water Resource Structures. (4) Lecture, four hours; discussion and analysis of typical natural water and wastewater for inorganic and organic constituents. Selected experiments include solids, nitrogen species, oxygen demand, chlorine, alkalinity, hardness, trace elements. Focus on relevancies of these measurements to water resource engineering. Letter grading.

157B. Design of Water Treatment Plants. (4) Lecture, four hours; discussion, two hours; laboratory, four hours; other, four hours. Requisite: course 155. Water quality standards and regulations, overview of water treatment plants, design of unit operations, design of water treatment plants, hydraulics of plants, pollution control. 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 engineering plants, process control, and economics. Letter grading.

160. Environmental Monitoring and Data Analysis. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150, 153, Mechanical and Aerospace Engineering 103. Overview of experimental design, factor analysis of multivariate data, kriging, monitoring network design and field experimental design, visual representation and computational mapping of environmental data. Letter grading.

163. Introduction to Atmospheric Chemistry and Air Pollution. (4) Lecture, four hours; outside study, eight hours. Requisites: course 153, Chemistry 20A, 20B, Mathematics 31A, 31B, Physics 1A, 1B. Description of processes affecting chemical composition of troposphere: air pollutant concentrations/standards, urban and regional ozone, aerosol pollution, formation/deposition of acid precipitation, fate of anthropogenic/transported inorganic and organic compounds, selected global chemical cycle(s). Control technologies. Letter grading.


166. Environmental Microbiology. (4) (Formerly numbered 166B.) (Same as Environmental Health Sciences M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 153. Microbial cell and its metabolic capabilities, microorganisms and their potentials, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

166L. Environmental Microbiology and Biotechnology Laboratory. (4) Lecture, two hours; discussion, two hours; laboratory, four hours; outside study, four hours. Requisite: course M166. General laboratory practice within environmental microbiology. Sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activities. Design of laboratory setups for studying environmental biotechnology. Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/seniors. General characteristics of transportation systems, including streets and highways, rail, transit, air, and water. Capacity considerations including time-space diagrams and queueing. Components of transportation system design, including horizontal and vertical alignment, cross sections, earthwork, drainage, and pavements. Letter grading.

198. Special Studies in Civil Engineering. (4) Lecture, four hours; outside study, eight hours. Special topics in civil engineering to be taught to undergraduates when need and/or opportunity arise. Letter grading.

199. Special Studies. (2 to 6) Tutorial, to be arranged. Limited to seniors. Individual investigation of selected topic to be arranged with a faculty member. Enrollment request forms available in department office. Occasional field trips may be arranged. May be repeated for credit. Letter grading.

Graduate Courses


223. Earth Retaining Structures. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 121. Basic concepts of theory of earth pressures behind retaining structures, with special application to design. Limit equilibrium and Rankine, active and passive earth excavation bracing. Effects of flexibility, creep in soils, and construction techniques on stability of bulkheads and sheet piles. Mechanical stabilization of soils, such as with soil nails and geosynthetics. Letter grading.


225. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 137. Analysis of earthquake ground motions, including seismic source modeling, travel path effects, and site response effects. Probabilistic seismic hazard analysis. Soil liquefaction. Seismic slope stability. Letter grading.
226. Geoenvironmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 121. Field projects in geoenvironmental engineering involves application of geotechnical principles to envi- ronmental problems. Topics include environmental regulations, waste characterization, geosynthetics, solid waste landfills, subsurface barrier walls, and dis- persion of high water content materials. Letter grading.

227. Numerical Methods in Geotechnical Engi- neering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to basic concepts of computer modeling of soils using finite ele- ment method, and to constitutive modeling based on plasticity theories. Special emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, nonexist- ence, and nonuniqueness of solutions. Letter grading.

228L. Advanced Soil Mechanics Laboratory. (4) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisites: courses 120, 121. Lect- ures and laboratory studies covering more advanced aspects of laboratory determination of soil properties and their application to design. Tests to determine permeability, consolidation, and shear strength. Re- view of advanced instrumentation and measurement techniques. Letter grading.

229. Seminar: Advanced Topics in Soil Mech- anics. (4) Seminar, four hours; outside study, eight hours. Topics include various soil form to cover subjects such as earth dam design, seepage through soils, consolidation, constitutive laws, finite difference and finite element methods with special application in soil mechanics, theories of elasticity and plasticity, and case histories. Letter grading.


M230B. Elasticity. (Formerly numbered M230.) (Same as Mechanical and Aerospace Engineering M256B.) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Equations of linear elasticity; uniqueness of solution; Betti/ Rayleigh reciprocity; Saint Venant's principle; simple problems involving spheres and cylinders; special techniques for plane problems. Airy's stress function, complex vari- able methods, transform method, linear elasticity, and numerical methods. Letter grading.

232. Theory of Plates and Shells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or Mechanical and Aerospace Engineering 156B. 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.


234. Advanced Topics in Structural Mechanics. (4) Lecture, four hours; outside study, eight hours. Limited to graduate engineering students. Current topics in composite materials, computational meth- ods, finite element analysis, structural synthesis, non- linear mechanics, and structural mechanics in gener- al. Topics may vary from term to term. Letter grading.

235A. Advanced Structural Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 135A. Recommended: course 135B. Review of matrix force and displacement methods of structural analy- sis; virtual work theorem, virtual forces, and displacements; theorems on stationary value of total and complementary potential energy, minimum total potential energy, structure, effects of approximations, introduction to finite element analy- sis. Letter grading.

235B. Finite Element Analysis of Structures. (4) Lecture, four hours; outside study, eight hours. Requi- sites: courses 130, 235A. Direct energy formula- tions for deformable systems; solution methods for linear equations; analysis of structural systems with one-dimensional finite elements; variational calculus; discrete element displacement, force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.


243A. Behavior and Design of Reinforced Con- crete Structural Elements. (4) Lecture, four hours; outside study, eight hours. Requisite: course 142. Ad- vanced topics on design of reinforced concrete struc- tures, including stress-strain relationships for plain and confined concrete, moment-curvature analysis of sections, and design for shear. Design of slender and low-rise walls, as well as design of beam-column joints. Introduction to displacement-based design and applications of strut-and-tie models. Letter grading.

243B. Response and Design of Reinforced Con- crete Structural Systems. (4) (Formerly numbered 243.) Lecture, four hours; outside study, eight hours. Requisites: courses 243A, 246. Information on re- sponse and behavior of reinforced concrete buildings to earthquake ground motions, use of elastic and inelastic response spectra, role of strength, stiffness, and ductility in design, use of pre- scriptive versus performance-based design method- ologies, and application of elastic and inelastic analy- sis techniques for new and existing construction. Let- ter grading.


249. Selected Topics in Structural Engineering and Mechanics. (2) Lecture, two hours; outside study, six hours. Review of recent research and develop- ments in structural engineering and mechanics. Structural analysis, finite elements, structural stability, dynamics of structures, structural design, earthquake engineering, ground motion, elasticity, plasticity, structural mechanics, mechanics of composites, and conservative modeling. May be repeated for credit. S/U grading.
250A. Surface Water Hydrology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150. In-depth study of hydrologic cycle, hydrologic mass balance analysis, hydrologic error analysis using systems investigation and physical hydrology. Stochastic hydrology; time-series analysis. Markovian streamflow generating models. Topics may vary from term to term. Letter grading.


250C. Mathematical Modeling of Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requisite: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; optimal design and sizing of water resources projects; and multistage planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

251. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; optimal design and sizing of water resources projects; and multistage planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; outside study, eight hours. Requisites: course 106A, one or more courses from Economics 1, 2, 11, 100, 101. Economic theory and applications in analysis and management of water and environmental problems; application of price theory to water resource management and renewable resources; benefit-cost analysis with applications to water resources and environmental planning. Letter grading.


254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; outside study, eight hours. Requisites: Chemistry 20B, Mathematics 31A, 31B, Physics 1A, 1B. Equilibrium and kinetic descriptions of chemical behavior of metals and inorganic ions in natural freshwater/marine surface waters and in water treatment. Processes include acid-base chemistry and alkalinity (carbonic system), complexation, precipitation/dissolution, absorption oxidation/reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 254A. Review of momentum and mass transfer, chemical reaction engineering, coagulation and flocculation, granular filtrations, sedimentation, carbon adsorption, gas transfer, disinfection, oxidation, and membrane processes. Letter grading.

255B. Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 254A, 255A. Fundamentals of environmental engineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-film processes, membrane and anaerobic digestion, sludge disposal, and biological nutrient removal. Letter grading.

256A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Applications of membrane separation processes to water treatment, wastewater treatment, and bioreactor and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electrodialysis, and ion exchange technologies from both practical and theoretical perspectives. Letter grading.

259A. Selected Topics in Environmental Engineering. (2) Lecture, two hours; outside study, four hours. Review of recent research and developments in environmental engineering. Water and wastewater treatment systems, nonpoint pollution, multimedia impacts. May be repeated for credit. S/U grading.

259B. Selected Topics in Water Resources. (2 to 4) Lecture, four hours; outside study, eight hours. Review of recent research and developments in water resources. Water supply and hydrology, global climate change, economic planning, optimization of water resource development. May be taken for a maximum of 4 units. Letter grading.


M262A. Introduction to Atmospheric Chemistry. (4) (Same as Atmospheric Sciences M203A.) Lecture, three hours. Requisite for undergraduates: Chemistry 22B. Principles of chemical kinetics, thermodynamics, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; climate change and climate. S/U or letter grading.

M262B. Atmospheric Diffusion and Air Pollution. (4) (Same as Atmospheric Sciences M224B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors and pollutant; meteorological aspects of air pollution. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

263A. Physics of Environmental Transport. (4) (Formerly numbered 263S.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and bubbles; small-scale dispersion and mixing; effect of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport at Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. Requisite: course 263A. In-depth treatment of selected topics involving transport phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, porous aggregates, and vegetative canopies. Discussion of theoretical models and experimental observations. Application to important environmental engineering problems. Letter grading.

265A. Mass Transfer in Environmental Systems. (4) Lecture, four hours; computer applications, two hours; outside study, eight hours. Designed for graduate students. Physical chemistry and mass transfer fundamentals related to contaminant fate and transport in soil, air, and water systems, including soil/water sorption and desorption, contaminant volatilization and dissolution of nonequilibrium phases (NAPL), and other environmental systems. Letter grading.


265C. Environmental Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 153, 254A. Environmental biotechnology — concept and potential; biotechnology of pollution control, bioremediation, biomass conversion; composting, biogas and bioethanol production. Letter grading.

266. Environmental Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 153, 254A. Environmental biotechnology — concept and potential; biotechnology of pollution control, bioremediation, biomass conversion; composting, biogas and bioethanol production. Letter grading.

285A. Preparation for M.S. Comprehensive Examination. (1 to 16) 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.

285B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

285C. Preparation for Ph.D. 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.

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.

377C. Preparation for Ph.D. 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.

398. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Petitions forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

397A. Preparation for M.S. Comprehensive Examination. (1 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

397B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

397C. Preparation for Ph.D. 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.

597A. Preparation for M.S. Comprehensive Examination. (1 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

597C. Preparation for Ph.D. 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 M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Petitions forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

Civil and Environmental Engineering / 203
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 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.

Preparation for the Major
Required: Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B.

Transfer Students
To be admitted as Classical Civilization majors, transfer students 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.

The Major
Required: (1) Greek 3 or Latin 3; (2) two courses in Greek or Roman history (History 115B, 115C, 116A, 116B, 117A, 117B, 118); (3) two courses in classical art or archaeology (Classics M153A through M153K); (4) seven 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 195 may be applied as only one course toward the major; (5) one senior seminar (Classics 197); with approval of the undergraduate adviser, a senior paper (Classics 195 or 199) may be substituted for the senior seminar.

Greek B.A.
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, or equivalent.

Transfer Students
To be admitted as Greek majors, transfer students 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.

The Major
Required: Eight upper division Greek courses, including course 110, and four courses in classical civilization (Classics 140 through 197) and/or ancient history (History 115A, 115B, 115C, 116A, 116B, 117A, 117B, 117C). Courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser.

Latin B.A.
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, or equivalent.

Transfer Students
To be admitted as Latin majors, transfer students 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.

The Major
Required: Ten upper division Greek and/or Latin courses (of which at least four must be in each language), including Greek 110 or Latin 110, and three courses in classical civilization (Classics 140 through 197) and/or ancient history (History 115A, 115B, 115C, 116A, 116B, 117A, 117B, 117C). Courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser.
English/Greek B.A.

See English.

English/Latin B.A.

See English.

Honors Program

The honors program is open to students in each of the departmental majors. 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 in the department and an overall GPA of 3.0 or better, and (3) complete Classics 195 with a grade of A– or better.

To qualify for graduation with departmental 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 Classics 195 with a grade 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 (12 units): Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B.

Required Upper Division Courses (20 units): Five courses selected from Classics 140 through 197. One course in a related field may be substituted with approval of the faculty undergraduate adviser.

A minimum of 16 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in any other department or program.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 which 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 (15 units): Greek 1, 2, 3, or equivalent.

Required Upper Division Courses (20 units): Five courses selected from Greek 100 through 133.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 which 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, epistolography, and the novel.

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

Required Lower Division Courses (15 units): Latin 1, 2, 3, or equivalent.

Required Upper Division Courses (20 units): Five courses selected from Latin 100 through 133.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) degree in Greek, Master of Arts (M.A.) degree in Latin, and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Classics.

Classics

Lower Division Courses

10. Discovering the Greeks. (5) Lecture, three hours; discussion, one hour. Knowledge of Greek not required. Study of Greek life and culture from age of Homer to Roman conquest. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

20. Discovering the Romans. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Roman life and culture from time of city’s legendary foundations to end of classical antiquity. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

30. Classical Mythology. (5) Lecture, three hours; discussion, one hour. Introduction to myths and legends of ancient Greece and/or Rome, role of those stories in their societies, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for former course 40. Exploration in detail and from variety of critical perspectives carefully selected literary texts characteristic of ancient Greece and significant in Western literary tradition. Satisfies Letters and Science 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. Not open for credit to students with credit for former course 41. Exploration in detail and from variety of critical perspectives a carefully selected set of literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Letters and Science Writing II requirement. Letter grading.

42. Cinema and the Ancient World. (5) Lecture; screenings, five hours; discussion, 75 minutes. Use of popular culture and cinema to introduce students to ancient Greek and/or Roman culture; focus at discretion of instructor. P/NP or letter grading.

51A. Art and Archaeology of Ancient Greece. (5) Lecture, three hours; discussion, one hour. Survey of a major period, theme, or medium of Greek art and archaeology at discretion of instructor. P/NP or letter grading.

51B. Art and Archaeology of Ancient Rome. (5) Lecture, three hours; discussion, 75 minutes. Survey of a major period, theme, or medium of Roman art and archaeology at discretion of instructor. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in a specific term. P/NP or letter grading.

Upper Division Courses

M121. History of Political Thought: Ancient and Medieval Political Theory from Plato to Machiavel-li. (4) Same as Political Science M111A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major political philosophers and schools from Plato to Machiavelli. P/NP or letter grading.

124. Modern Receptions of Ancient Political Thought. (4) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and interpreted political thought of ancient Greeks and Romans. Topics include examination of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.
140. Topics in History of Greek Literature. (4) Lecture, three hours. Requisite: course 10 or 40. Investigation of specific issues in the understanding of Greek literature, such as definition of a genre or evaluation of a particular author. May be repeated for credit with topic change. P/NP or letter grading.

141. Topics in History of Latin Literature. (4) Lecture, three hours. Requisite: course 20 or 41. Investigation of a specific issue in the interpretation of Latin literature, such as definition of a genre or evaluation of a particular author. May be repeated for credit with topic change. P/NP or letter grading.

142. Ancient Epic. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40, or 41. Homeric's Iliad and Odyssey; Vergil's Aeneid, and Ovid's Metamorphoses; studied in translation. P/NP or letter grading.

143A. Ancient Tragedy. (4) (Formerly numbered 143.) Lecture, three hours. Requisite: course 10 or 40W. Survey of tragedy from 5th-century Athens through later antiquity. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. Requisite: course 10 or 20W. Survey of comedy as it developed in Greek and Roman worlds. P/NP or letter grading.

144. Topical Studies in Ancient Greece. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40, or 41. Investigation of a problem in ancient culture that involves discussion of both Greek and Roman material. May be repeated for credit with topic change. P/NP or letter grading.

M145A. Ancient Greek and Roman Philosophy. (4) (Same as Philosophy M103A.) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of the texts, their literary form, interrelations, and contribution to discussion of basic philosophical questions.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B.) Lecture, three hours. Requisite: one course from M145A, Philosophy 1, 100A, M101B, M102. Study of some major texts in Greek philosophy of the Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

M146A. Plato — Earlier Dialogues. (4) (Same as Philosophy M101A.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early and middle dialogues of Plato.

M146B. Plato — Later Dialogues. (4) (Same as Philosophy M101B.) Lecture, three hours; discussion, one hour. Requisite: course M146A. Study of selected topics in middle and later dialogues of Plato.

M147. Aristotle. (4) (Same as Philosophy M102.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle.


150A. Female in Greek Literature and Culture. (4) Lecture, three hours. Requisite: course 10. Interdisciplinary study of concept of female in Greek literature and culture. P/NP or letter grading.


C151E. Archaeological Field Techniques. (12) Off-campus field archaeology, 36 hours. Preparation: at least one introductory course. Training in techniques of archaeological research in the field, including topographic and area survey, mapping and recording artifacts, excavation and data analysis. Conducted in Mediterranean area. Concurrently scheduled with course C251E. P/NP or letter grading.

152. The Ancient City. (4) Lecture, three to four hours. Requisite: course 10 or 20 or History 1A. Study of urban planning in the ancient world, with particular attention to the cities of classical Greece and Rome, but with consideration also to comparable developments in the ancient Near and Far East. Examination of questions of architectural space and organization, of form, design, and function of major municipal areas and buildings, and of provision of public amenities by detailed reference to significant archaeological sites and contemporary sources. P/NP or letter grading.

M153A. Minoan Art and Archaeology. (4) (Same as Art History M102A.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture in Minoan Crete from ca. 3000 to 1000 B.C. P/NP or letter grading.

M153B. Mycenaean Art and Archaeology. (4) (Same as Art History M102B.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture in Mycenaean Greece from 2000 to 1000 B.C. P/NP or letter grading.

M153C. Archaic Greek Art and Archaeology. (4) (Same as Art History M102C.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture of Greek world from approximately 800 through 490 B.C. P/NP or letter grading.

M153D. Classical Greek Art and Archaeology. (4) (Same as Art History M102D.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture of Greek world from approximately 490 through 350 B.C. P/NP or letter grading.

M153E. Hellenistic Greek Art and Archaeology. (4) (Same as Art History M102E.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture of Greek world from middle of 3rd century B.C. onward, including transition of Greek art forms to the Romans. P/NP or letter grading.

M153F. Etruscan Art. (4) (Same as Art History M102F.) Lecture, three hours. Requisite: course 20 or Art History 50. Arts of Italic peninsula from ca. 1000 B.C. to end of the Roman Republic. P/NP or letter grading.

M153G. Roman Art and Archaeology. (4) (Same as Art History M102G.) Lecture, three hours. Requisite: course 10 or Art History 50. Art and architecture of Rome and its Empire from ca. 300 B.C. to A.D. 300. P/NP or letter grading.


162. Classical Myth in Literature. (4) Use of myth in principal authors and genres of Greek and Roman literature, with examples of its influence in later literatures.

166A. Greek Religion. (4) Requisite: course 10. Study of the religion of the ancient Greeks.


167. Greek and Roman Magic. (4) Lecture, three hours; discussion, one hour. Requisite: course 10 or 20. Study of beliefs about supernatural phenomena in the ancient world, including witches, ghosts, vampires, and magic spells, attested in both literary and archaeological sources. P/NP or letter grading.


170A. Power and Imagination in Ancient Greece. (4) Lecture, three hours. Requisite: course 10 or History 116A or 116B. Study of relation of political power to intellectuals and artists from Homer through Hellenistic Age. Topics include conditions of dramatic performance, patrons and poetry, impiety as a political offense, and Plato on literature and censorship. P/NP or letter grading.

170B. Power and Imagination in Ancient Rome. (4) (Formerly numbered 50F.) Lecture, three hours. Requisite: course 20 or History 117A or 117B. Study of relation of political power to intellectuals and artists at Rome down to 116 C.E. Topics include condition of theatrical performance, poetry and patronage, persecution of authors and artists. P/NP or letter grading.

M170C. Power and Imagination in Byzantium. (4) (Formerly numbered M170D.) Lecture, three hours. Requisite: course 70, or History 123A and 123B. Designed for juniors/seniors. Study of relations of authority and intelligentsia in highly centralized Byzantine Empire. Topics include criticism of the emperor, iconoclasm, intellectual freeedom, attempts at reform. Letter grading.

180. Introduction to Classical Linguistics. (4) Lecture, three hours. Requisite: Greek 3 or Latin 3. Linguistic approach to Greek and Latin, including Indo-European background, etymology, pronunciation, alphabets, sociolinguistics (dialects, bilingualism), and applications to classical literature. P/NP or letter grading.

185. Origins and Nature of English Vocabulary. (5) (Formerly numbered 55.) Lecture, three hours. Origins and nature of English vocabulary, from Proto-Indo-European prehistory to current slang. Topics include the Greek and Latin component in English (including technical terminology), the alphabet and English spelling, semantic change and word formation, vocabulary in literature and film. P/NP or letter grading.

190. The Medieval Book. (4) Seminar, three hours. Requisites: courses 10, 20, and 40 or 41. Limited to senior Greek and Latin, Greek, Latin, and Classical Civilization majors. History of the book from manuscript to printing, with attention to construction, layout, decoration, and script, as well as changing cultural and historical contexts, medieval methods of information retrieval, and transition from script to print culture.

195. Senior Honors Paper. (4) Supervised through individual consultation with an appropriate faculty member, students revise paper written in a prior upper-division course into substantial piece of academic writing.

199. Special Studies in Classics. (2 to 8) Limited to seniors.


Graduate Courses
201B. Topics in Ancient History: Roman World. (2 or 4) Seminar, three hours. Introduction to basic methods and approaches to study of Roman history by intensive examination of selected topics, including readings of ancient texts and modern scholarship. S/U or letter grading.

M220A. Interfaces: Transmission of Roman Literature. (4) Seminar, History CM220A.) Discussion, three hours. Examination of transmission of Latin classical literature in late antiquity, Middle Ages, and Renaissance to understand processes by which Latin literature has been preserved. S/U or letter grading.


244. Textual Criticism: Studies in Preparation of a Critical Edition of Greek and/or Latin Texts. (4) Seminar, three hours. Different steps required in preparation of a critical edition of an ancient text: localization of manuscripts; collation; establishing the stemma; selecting the right reading on basis of knowledge of the context, of the language of the author, and of the sources available. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with change. S/U or letter grading.

250. Topics in Greek and Latin Literature. (2 or 4) Lecture, three hours. Investigation of specific literary genres or historical issues in history of classical 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. (4) Seminar, three hours. S/U or letter grading.


251D. Seminar: Classical Archaeology — Greco-Roman Painting. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman painting. May be repeated for credit with consent of instructor. S/U or letter grading.

252. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of Athens, combining evidence of literature, inscriptions, and actual remains. S/U or letter grading.


260. Topics in Ancient Religion. (4) Seminar, three hours.


287. Graduate Colloquium in Classical Literature. (4) Survey of basic methods of and approaches to classical scholarship, including textual criticism, literary interpretation and theory, hermeneutics, interdisciplinary studies, and computer applications to classics. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with topic change. S/U grading.

288. Literary Theory. (2 or 4) Discussion, three hours. Designed for graduate students. Introduction to chief texts in literary theory and criticism for readers of classical literature, with application to classical texts. S/U or letter grading.

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

286. Teaching Classics. (2 to 4) Seminar, three hours. Normally to be taken by all graduate students in term before or during their first assignments as teaching assistants. Seminar/workshop in various pedagogical issues and strategies in preparation for teaching classical civilization, Greek, and/or Latin undergraduates. Readings and group discussions in topics related to teaching in field of classics. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

256. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

257. Study for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


299. Special Studies in Greek. (2 to 8) Limited to seniors.

Graduate Courses

200A-200B-200C. History of Greek Literature. (6-6-6) 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) Seminar, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.

202A-202B. Homer: Odyssey and the Epic Cycle. (2 or 4 each) Seminar, three hours. Course 202A is requisite to 202B. S/U (2-unit course) or letter (4-unit course) grading.

203. Hesiod. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading.

204. Homeric Hymns. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading.

205. Aeschylus. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

206A-206B. Sophocles. (2 or 4 each) Seminar, 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) Seminar, three hours. Course 207A is requisite to 207B. S/U (2-unit course) or letter (4-unit course) grading.

208A-208B. Sophocles. (2 or 4 each) Seminar, 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. Course 209A is requisite to 209B. S/U (2-unit course) or letter (4-unit course) grading.


211A-211B. Herodotus. (2 or 4 each) Seminar, 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) Seminar, three hours. Course 212A is requisite to 212B. 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.

256. Directed Individual Study or Research. (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.

2. Elementary Latin. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1. P/NP or letter grading.

3. Elementary Latin. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2 or 4. P/NP or letter grading.


5. Intensive First-Year Latin. (12) Lecture, 15 hours. Ten-week intensive introduction to Latin language equivalent to courses 1, 2, and 3. Offered in summer only. Letter grading.

#### Upper Division Courses


8. Terence. (4) Requisite: course 100.


10A. 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 exposure to reading Latin poetry. P/NP or letter grading.

10B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 105A. Reading and discussion of Vergil’s Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings. P/NP or letter grading.


111. Livy. (4) Requisite: course 100.

112. Tacitus. (4) Requisite: course 100.


116. Roman Novel. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of either Petronius’ Satyricon or Apuleius’ Metamorphoses and development of the genre of prose novel in antiquity. May be repeated for credit with change in author and text.

117. Sallust. (4) Requisite: course 100.

118. Seneca. (4) Requisite: course 100. Selections of Seneca’s works read in Latin.

120. The Vulgate. (4) Lecture, three hours. Requisite: course 3. Reading of selected chapters of St. Jerome’s translation of the Bible, with emphasis on unclassical features of the Latin.

121. Patristic Texts. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of one or more Latin patristic texts (especially works of Ambrose, Augustine, and/or Jerome), with emphasis on specific features of patristic, as opposed to classical, Latin.

130. Introduction to Medieval Latin. (4) Requisite: course 3. Reading of easy prose texts, with emphasis on basic language training.

131. Medieval Latin Prose. (4) Lecture, three to four hours. Requisite: course 100. Exploration of selected texts in prose, with emphasis on idioms and syntax of medieval Latin. P/NP or letter grading.


199. Special Studies in Latin. (2 to 8) Limited to seniors.

### Graduate Courses

200A-200B. History of Latin Literature (6-6-6). Lectures on history of Latin literature, supplement on the part of the student by independent reading of Latin texts in the original. Each course may be taken independently for credit.

201. Roman Epic Tradition. (2 or 4) Seminar, three hours. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus), with attention to the literary tradition of epic. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

202. Seminar: Catullus. (2 or 4) Detailed consideration of entire Catullian corpus. S/U (2-unit course) or letter (4-unit course) grading.

203A. Elegiac Poetry. (4) S/U (2-unit course) or letter (4-unit course) grading.

203B. Properties. (4) Course 203A is not requisite to 203B. S/U (2-unit course) or letter (4-unit course) grading.

204A-204B. Vergil’s Aeneid. (2 or 4 each) Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

205A. Seminar: Vergil’s Bucolics. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading.

205B. Seminar: Vergil’s Georgics. (2 or 4) Course 205A is not requisite to 205B. Close reading of Vergil’s text; careful evaluation of influential criticism on the poem, much of it recent; examination of the work’s place within the tradition of rural poetry. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading.

207. Roman Comedy. (2 or 4) Seminar: Study of Roman comedy. Reading of one comedy by Plautus or Terence, with emphasis on language and meter. S/U (2-unit course) or letter (4-unit course) grading.

208. Ovid. (2 or 4) Preparation: reading knowledge of classical Latin. Detailed study of poetic works of Ovid. Readings in the original with discussion of secondary literature and scholarship. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.
120. Advanced Latin Prose Composition. (4) Requires: course 110. 211A-211B-211C. Seminars: Roman Historians. (2 or 4 each) Study of considerable portions of writings of the following. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 211A. Sallust; 211B. Livy; 211C. Tacitus. 215. Seminar: Roman Novel. (2) Works such as Petronius’ Satyricon and Apuleius’ Metamorphoses study of literary problems. May be repeated for credit with change in topic. S/U (2-unit course) or letter (4-unit course) grading. 216. Roman Rhetoric. (2 or 4) Seminar, three hours. Close study of one rhetorical text (e.g., Rhetorica ad Herennium; Cicero’s De Oratore; Seneca’s Controversiae or Sactiorum). Students write a paper with attention to its role in a specific literary tradition. May be repeated with topic change. S/U (2-unit course) or letter (4-unit course) grading. 220. Ciceronian orations. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading. 221A. Cicerone’s Philosophical Works, (2 or 4) S/U (2-unit course) or letter (4-unit course) grading. 221B. Cicero: De Natura Deorum. (2 or 4) Course 221A is not required to 221B. S/U (2-unit course) or letter (4-unit course) grading. 222. Seminar: Roman Stoicism. (2 or 4) Preparation: reading knowledge of Greek and Latin. S/U (2-unit course) or letter (4-unit course) grading. 223. Lucrетius. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading. 224. Seneca. (2 or 4) Seminar, three hours. Detailed study of one work of prose or poetry by the younger Seneca. Emphasis on literary and philosophical problems, with some attention to philosophical and historical matters as well. May be repeated with topic change. S/U (2-unit course) or letter (4-unit course) grading. 229. Sicht Translation. (2 or 4) Discussion, three hours. Designed for graduate students. Practice in translation of previously unseen texts from a variety of authors and genres. Topics include peculiarities of style and vocabulary of the distinct genres, literary vs. scholarly translation, semantic properties of particular words and constructions. S/U (2-unit course) or letter (4-unit course) grading. 231A-231B. Seminars: Medieval Latin. (2 or 4 each) Preparation: at least one upper division Latin course. Course 231A is not required to 231B. Studies in various areas of the 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. 232. Vulgar Latin. (2 or 4) Lecture, three hours. History and characteristics of popular Latin; its development into early forms of the Romance languages. S/U or letter grading. 235. Late Latin Poetry. (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of works of one or several poets who flourished between the death of Ovid and fall of the Roman Empire. May be repeated with change in author. 236. Late Latin Prose. (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of works of one or several prose authors who flourished between the death of Tacitus and fall of the Roman Empire. May be repeated with change in author. 240. History of the Latin Language. (2 or 4) Lecture, three hours. Development of Latin from the earliest monuments until its emergence in the Romance languages. S/U or letter grading. 242. Italic Dialects and Latin Historical Grammar. (2 or 4) Lecture, three hours. Linguistic situation in early Italy. Readings in Oscan, Umbrian, and early Latin texts. Latin grammar in context of Italic and Indo-European linguistics. S/U or letter grading. 243. Seminar: Latin Paleography. (4) Studies in development of book hand in Latin manuscripts earlier than the invention of printing. 245. Neo-Latin. (2 or 4) Seminar, three hours. Preparation: at least two upper division Latin courses. Requires: course 100. Survey of texts by one or more authors from Renaissance to the present, written on related topics. S/U or letter grading. 495. College Teaching of Latin. (2) Seminar, to be arranged. Preparation: appointment as a teaching assistant. Methodology of instruction in conjunction with classroom practice. May be repeated for credit. S/U grading. 596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading. 597. Study for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading. 599. Research for Ph.D. Dissertation. (2 to 8) Tutorial, to be arranged. S/U grading. Related Courses Ancient Near East (Near Eastern Languages) 170. Introduction to Biblical Studies 272. Semitic Background of the New Testament Art History 223. Classical Art History 115A-115B-115C. History of Ancient Mediterranean World 116A-116B. History of Ancient Greece 117A-117B-117C. History of Rome 121A-121B. Medieval Europe 123A-123B. Byzantine History 215A-215B. Seminars: Ancient History 216A-216B. Seminars: Byzantine History 222A-222B. Seminars: Medieval Intellectual History and History of Science Indo-European Studies 132. European Archaeology: Bronze Age M150. Introduction to Indo-European Linguistics 210. Indo-European Linguistics: Advanced Course II 280A-280B. Seminars: Indo-European Linguistics Communication Studies Interdepartmental Program College of Letters and Science UCLA 334 Kinsey Hall Box 951538 Los Angeles, CA 90095-1538 (310) 825-3303 fax: (310) 206-2371 http://www.commsstudies.ucla.edu Neil M. Malmuth, Ph.D., Chair Faculty Advisory Committee Matthew A. Baum, Ph.D. Scope and Objectives The major in Communication Studies is an interdisciplinary program 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. Two areas of focus are offered: the concentration in mass communication centers on formal and institutional communication systems and the macroscopic social contexts in which they function; the concentration in interpersonal communication centers on face-to-face communicative interaction in the small group environment. Undergraduate Study Communication Studies B.A. Students fulfilling the major in Communication Studies must complete the seven required lower division requisites and a minimum of 15 upper division courses as set forth below. Enrollment in the major is limited. Admission to the major is by application to the committee in Affiliated Faculty Professors Christine L. Borgman, Ph.D. (Information Studies) Thomas N. Bradford, Ph.D. (Psychology) Andrew Christensen, Ph.D. (Psychology) Steven E. Clayman, Ph.D. (Sociology) Michael R. Curly, Ph.D. (Geography) Charles Goodwin, Ph.D. (Applied Linguistics and Teaching English as a Second Language) Patricia M. Greenfield, Ph.D. (Psychology) John C. Heritage, Ph.D. (Sociology) Jody E. Kreiman, Ph.D., in Residence (Surgery) Leah Liewroux, Ph.D. (Information Studies) Neil M. Malmuth, Ph.D. (Psychology, Speech) Emanuel A. Schegloff, Ph.D. (Sociology) Associate Professor Paul I. Rosenthal, Ph.D. (Speech) Assistant Professors Matthew A. Baum, Ph.D. (Political Science) Timothy Groeling, Ph.D. (Speech) Martie G. Haselton, Ph.D. (Psychology, Speech) Francis Steen, Ph.D. (Speech) Senior Lecturer Marde S. Gregory, M.A. Lecturers William Kelly, Ph.D. Paul Okami, Ph.D. Dawn R. Ross, J.D. Michael W. Suman, Ph.D. Jeffrey B. Valde, J.D. Paul Von Blum, J.D. Adjunct Professor Thomas G. Plate, M.A.
charge. Applications are available during Spring Quarter in the program office.

Preparation for the Major

Required Lower Division Courses: Communication Studies 10, Anthropology 33 or Communication Studies M40 or M70 or Linguistics 1 or Sociology 24, Speech 1, one statistics course from Economics M40 or Sociology M18 or Statistics 10. Three additional courses must be selected from Political Science 40, Psychology 10, Sociology 1, and Economics 1 or 2 or 5 or Political Science 30.

Students are encouraged but not required to complete as many lower division preparation for the major courses as possible before admission to the program.

Transfer Students

To be admitted as Communication Studies majors, transfer students with 90 or more units must complete two or more of the following introductory courses prior to admission to UCLA: one mass and interpersonal communication studies course, one principles of public speaking course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or macroeconomics or political economy.

Writing Requirement

Required: English Composition 131D.

The Major

Required Core Courses: Communication Studies 100, 101, 150.

Interpersonal Communication Concentration

Required: Eleven courses as follows:

1. Seven courses, three of which must be in communication studies and one of which must be Communication Studies 115 or 120, from Anthropology 141, Communication Studies 115, M116, 120, M123, M125, M126, M127, 130, M144A, M144B, 197G, 197J, Psychology 137C, M165, 174, 177, 178, Sociology 132 or Psychology 135, Sociology 135 or Psychology 137I, and Sociology 156 or 160


3. Two general interpersonal communication elective courses from one of the following groups: (a) American studies — Communication Studies 197D, English 115A, History 148A, 148B, 148C, 150A, 150B, 156A, 156B, Political Science 144A, 144B (b) language theory — Anthropology M140, M145 (by petition), Communication Studies M123, M124, 197E, Linguistics 103, 170, Philosophy 172, Psychology 122 or 123, (c) theories of social interaction — Anthropology 133R, 135A, 135B, 142A, 142B, Communication Studies M125, M127, M144A, M144B, 197F, Sociology 134

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 Studies 151, 154, 158, Program in Computing 10C, 20A, 20B, 40. Courses need to be completed 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 Counseling Office). Students graduate with a bachelor’s degree in communication studies and a specialization in Computing.

Communication Studies

Lower Division Courses

10. Introduction to Communication Studies. (5) Lecture, four hours; discussion, one hour. Introduction to the fields of mass communication and interpersonal communication. Study of modes, media, and effects of mass communication, interpersonal processes, and communication theory. Letter grading.

15A. Production of Multimedia. (4) Description of what goes into a multimedia software program; discussion of different platforms (PC, Mac, network computers, servers, and transmitters) and distribution means (CD-ROM, DVD-ROM, Internet); content organization and layout, data structure and management; and overall planning for prototype and final product. P/NP or letter grading.

M40. Language and Gender: Introduction to Gender and Stereotypes in English, Japanese, and Russian. (5) Same as Japanese M40 and Russian M40.) Lecture, three hours; discussion, one hour. Introduction to language from sociological perspective of gender. Use of research and examples in English, Japanese, and Russian to explore nature of male and female “gendertraits” and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, language acquisition. P/NP or letter grading.

M70. Origin of Language. (5) Same as German M70 and Indo-European Studies M70.) Lecture, three hours; discussion, one hour. Theoretical and methodological issues surrounding origin of language. Topics include evolutionary theory, evolution of man, how language is organized in the brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

88A-88Z. Lower Division Seminars: Special Topics in Communication Studies. (4 each) Seminar, three hours. Variable topics courses; consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading. 88A. Mass Communication Theory; 88B. Systems, Institutions, and Policies; 88C, Media Content/Criticism and History; 88D. American Studies; 88E. Language/Interaction Structures; 88F. Social Systematics; 88G. Interpersonal Communication Theory; 88J. Heterogeneous Groups Communication.

Upper Division Courses

100. Communication Theory. (4) 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 theoretical models explicating the process and constituents of the communicative act.

101. Freedom of Communication. (4) Analysis of legal, political, and philosophical issues entailed in rights of free expression, access to an audience, and access to information. Study of court decisions governing freedom of communication in the U.S.


M116. Communication and Conflict in Couples and Families. (4) (Same as Psychology M175.) Lecture, 90 minutes; discussion, 90 minutes. Requisites: Psychology 10, 100A, 127. 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.
102. Principles and Types of Group Communication. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the effects of interactions among members of groups. Topics include group formation, development, and stability. Emphasizes research on group processes and dynamics. Letter grading.

103. Communication and Public Policy. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in public policy making, including the communication strategies of policy makers. Topics include advocacy, lobbying, and public relations. Letter grading.

104. Persuasion and Social Influence. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the psychological processes involved in persuasion and social influence. Topics include social influence techniques, message design, and the role of information in decision making. Letter grading.

105. Group Dynamics and Teamwork. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the dynamics of group interaction and teamwork. Topics include leadership, group norms, and conflict resolution. Letter grading.

106. Field Research Methods. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the methods used in field research, including observation, interviewing, and survey research. Letter grading.

107. Research Methods in Communication. (4) Pre-requisite: course M144A. Lecture, two hours; discussion, one hour. Focus on the research methods used in communication studies, including qualitative and quantitative research techniques. Letter grading.

108. Critical and Media Literacy. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the development of critical thinking skills and media literacy. Topics include media effects, media production, and media consumption. Letter grading.

109. Communication and Social Change. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social change, including the use of communication to promote social justice and equity. Letter grading.

110. Communication and Social Justice. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in promoting social justice and equity. Topics include communication in advocacy, social movements, and public policy making. Letter grading.

111. Communication and Social Policy. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social policy making, including the use of communication to promote social change. Topics include policy advocacy, public relations, and social movements. Letter grading.

112. Communication and Social Movements. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social movements, including the use of communication to promote social change. Topics include social movement theory, communication strategies, and social movement outcomes. Letter grading.

113. Communication and Social Change. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social change, including the use of communication to promote social justice and equity. Letter grading.

114. Communication and Social Policy. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social policy making, including the use of communication to promote social change. Topics include policy advocacy, public relations, and social movements. Letter grading.

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119. Communication and Social Change. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social change, including the use of communication to promote social justice and equity. Letter grading.

120. Communication and Social Policy. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social policy making, including the use of communication to promote social change. Topics include policy advocacy, public relations, and social movements. Letter grading.

121. Communication and Social Movements. (4) Pre-requisite: course M144A. Lecture, three hours. Focus on the role of communication in social movements, including the use of communication to promote social change. Topics include social movement theory, communication strategies, and social movement outcomes. Letter grading.
COMMUNITY HEALTH SCIENCES

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Steven P. Wallace, Ph.D.

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Assistant Professor
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Marianne Parker Brown, M.P.H.
Frances Chasen, M.A.
Susan Edelstein, M.S.W., L.C.S.W.
Jonathan Freedman, M.P.H.
Lynn Kenzy, M.A., M.P.H.
Wendy Lazarus, M.S.

Adjunct Professors
Martin Anderson, Ph.D.
Daniel H. Ershoff, Dr.P.H.
Neal Kaufman, M.D., M.P.H.
Steve Rottman, M.D.
Mary Jane Rotheram-Borus, Ph.D.

Adjunct Associate Professors
Carol Archie, M.D.
Marion Taylor Baer, Ph.D., R.D.
Diana Bonta, Dr.P.H.
Joanne Leslie, Sc.D.
C. Kevin Malotte, Ph.D.
Michael Regalado, M.D.
Samuel Stratton, M.D., M.P.H.

Adjunct Assistant Professors
Vidi Ebin, Ph.D.
Janet Frank, Ph.D.
Elizabeth Frankenberg, Ph.D.
Ronald J. Halbert, M.D.
Moira Inkelas, Ph.D.
Michael Preilip, D.P.A., M.P.H., C.H.E.S.
Kimberley Shashof, Dr.P.H.
Wendelin Slusser, M.D.
Bonnie Taub, Ph.D.
Valentine Villa, Ph.D.

Associate Field Program Supervisor
Michael Preilip, D.P.A., M.P.H., C.H.E.S.

Scope and Objectives

The Department of Community Health Sciences focuses on the determinants of health within the context of the social structure, community, health care systems, and family units. Of particular interest is how health-related behaviors of individuals are influenced by and interact with conditions in the social, cultural, physical, and biological environment to influence health status, with particular emphasis on identifying, evaluating, and discouraging health-damaging behaviors and facilitating health-promoting behaviors. The curriculum seeks to integrate basic and applied public health theories and methods in applying them to real problems of human populations. Assessment, planning, and evaluation are common themes in the department's educational programs. Students specializing in maternal and child health complete additional coursework.

The department offers both schoolwide professional (M.P.H. and Dr.P.H.) and academic (M.S. and Ph.D.) degree programs. Graduates of the professional programs generally assume positions in the planning, administration, and evaluation of public health programs and policies, both in the U.S. and abroad, which have as their objective the maintenance and improvement of the health of individuals, families, communities, and populations. Graduates of the doctoral programs assume teaching, research, and managerial positions in a wide variety of settings, including universities, government agencies, nongovernmental organizations, international health agencies, and research centers.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Community Health Sciences

Graduate Degrees
The Department of Community Health Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Public Health.

Community Health Sciences

Lower Division Courses

88. Lower Division Seminar: Special Topics in Community Health Sciences. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfac-
tion of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in community health sciences approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

90. Aging Frontier: Public Health Perspective. (Formerly numbered 190.) Lecture, three hours; discussion, one hour. Introduction to gerontology from public health perspective, emphasizing prevention of illness and promotion of healthy aging. Special attention to health and aging among women and racial/ethnic minorities. Letter grading.

Upper Division Courses
100. Introduction to Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Development of broad appreciation of community, cultural, developmental, and psychosocial factors as they affect health, health-related behavior, and implications for public health. Review of theories, models, and methodologies of interventions and policies for health promotion and disease prevention. Letter grading.

130. Nutrition and Health. (4) Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curriculum, P/NP or letter grading.

132. Health, Disease, and Health Services in Latin America. (4) Lecture, four hours. Introduction to health, disease, and health services in Latin America, with emphasis on epidemiology, health administration, medical anthropology, and nutrition. P/NP or letter grading.

M140. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Same as Asian American Studies M129A.) Lecture, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both care delivery and research for these populations. Letter grading.

195. Field Studies in Cancer Control. (4) Lecture, two hours; discussion, one hour; fieldwork, four hours. Requisite: Molecular Cell, and Developmental Biology 30. Designed for juniors/senior. Opportunity for students to become involved in cancer control through classroom discussion, lectures, service in the field, and guided research. Biology of cancer, its prevention, early detection, treatment, and rehabilitation. Letter grading.

196A. Introduction to Health Promotion Fieldwork. (4) Lecture, two hours; discussion, one hour; laboratory, six hours. Designed for juniors/seniors. Training and experience in health promotion and health education in selected ethnic communities, including participation in supervised fieldwork at sites throughout Los Angeles. Letter grading.

196B. Advanced Health Promotion Fieldwork. (4) Lecture, two hours; discussion, one hour; laboratory, six hours. Requisite: course 196A. Application of skills and experience gained in course 196A to development and provision of additional health promotion and health promotion in selected ethnic communities. Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Limited to seniors. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.

Graduate Courses
200. Global Health Problems. (4) Lecture, two hours; discussion, two hours. Overview of health profile of the world in the 20th century. Global health problems and methods by which they have been dealt in context of the Alma-Ata goal of “health for all by year 2000.” Letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208 and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

210. Community Health Sciences. (4) Lecture, three hours. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in the field of community health, variability in definitions of health and illness, correlates of health and illness behavior, impact of social and community structure on health status, major contemporary approaches to health promotion and health education at community level. Use of comparative international perspective. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4-4) Lecture, three hours; discussion, one hour; outside assignments, eight hours. Requisite: course 210. Course 211A is requisite to 211B. Development, planning, and administration of public health programs in community settings. Introduction to range of research methods and techniques used in designing and conducting health research, with particular emphasis on evaluation of community-based public health programs. Course organized into three modules. 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 in Community and Patient Health Education. (4) Lecture, three hours; discussion, two hours. Requisite: knowledge of conceptual, theoretical, and evaluation skills to community-based health education risk-reduction programs. Computer applications, data management, and research methodologies taught through microcomputer and mainframe computer management and analysis of program databases. Letter grading.


M216. Qualitative Research Methodology. (4) (Same as Anthropology M284.) Discussion, four hours; laboratory, one hour. Intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to health care. Letter grading.

M218. Questionnaire Design and Administration. (4) (Same as Epidemiology M218.) Lecture, four hours. Requisites: courses 211A and 211B, or Epidemiology 210A and 210B. Design, testing, field use, and administration of data collection instruments, with particular emphasis on questionnaires. Letter grading.

219. Strategies for Multivariate Data Analysis. (4) Discussion, three hours. Preparation: one multivariate statistics course. Designed for graduate students. Translation of theory into a data analytic plan, with special emphasis on social epidemiology; application of this analytic plan to the interpretation of results obtained through multivariate analysis. Letter grading.

220. Demography of Women. (4) Lecture, four hours. Overview of demography of women, with focus on the U.S. Areas include trends and differentials in fertility, marital patterns and living arrangements, educational attainment, and labor force participation. Letter grading.

221. Introduction to Sociocultural Aspects of Health. (4) Lecture, three hours; discussion, one hour. Examination of how social stratification and culture relate to health and health-related behavior. Consideration of four major status characteristics: age, ethnicity, gender, and socioeconomic status. Description of epidemiological patterns and discussion of social meaning of the four characteristics. Letter grading.

222. Understanding Fertility: Theories and Methods. (4) Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 109A. Designed for graduate students. Application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. Use of classic concepts and contemporary examples. For advanced students interested in population, demography of health, and social demography. Letter grading.

226. Women’s Health and Well-Being. (4) (Formerly numbered 431.) Lecture, four hours. Interdisciplinary perspective critically examining research on women’s health. Overview of scientific inquiry and methods; gender roles; status attainment and medical sociology. Review of current data on women’s health. Letter grading.

228. Drug Abuse Prevention. (4) Discussion, three hours. Identification and discussion of strategies for prevention of drug abuse at individual and community levels, particularly in minority populations. Letter grading.

229. Policy and Public Health Approaches to Viole-
ence Prevention. (4) Lecture, four hours. How policies related to violence and development of skills to transmit this knowledge. Examination of wide range of policy topics and how each might be associated with a reduction/increase in violence/violent injury. Letter grading.

230. Family and Sexual Violence. (4) Lecture, three hours; community, three to four hours. Examination of rape, incest, and spouse and elder abuse. Presentation of definitions, causes, outcomes of research on family and sexual violence, as well as response of social service, medical, and criminal justice systems. Letter grading.
270A-270B. Foundations of Community Health Sciences. (4-4) Lecture, four hours. Requisite: course 270A. Designed for doctoral students. In-depth analysis of theories, methods, and research on which community health sciences are based. Letter grading.


272. Social Epidemiology. (4) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other socioenvironmental factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

273. Social Epidemiology of Chronic Disease. (4) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of chronic diseases. Topics include diabetes, heart disease, and cancer. Emphasis on lifestyles and other socioenvironmental factors associated with chronic diseases. Letter grading.

274. Health Professions. (4) (Same as Sociology M249A.) Lecture, three hours. Requisite: course 210. Sociological examination of concepts “health” and “illness” and role of various health professionals, especially physicians. Attention to meaning of professionalization and professional/client relationships within a social context. Letter grading.


276. Complementary and Alternative Medicine. (4) Lecture, three hours. Requisites: course 100 or 210, Health Services 100. Analysis of use and acceptance of complementary and alternative medicine (CAM) by clients and providers. Core beliefs of CAM, relationship of CAM to health and illness, licensing and certification of CAM providers, relationship of CAM and conventional medicine, impact of CAM on patient identity. Letter grading.

277. Advanced Community Health Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Before planning the educational components of a health program, one must assess behaviors and factors influencing the health problem. Conceptual, theoretical, and evaluative skills developed and applied in constructing a community-based educational program. Letter grading.


279. Building Stronger Communities for Los Angeles. (4) (Same as Policy Studies M273.) Lecture, four hours. Designed for graduate students. Introduc- tory survey course. Emphasizes community building (FCCB) to introduce graduate students as well as community practitioners to range of topics, issues, and frameworks to help build stronger, more cohesive, and family-centered communities. Letter grading.


281. Capstone Seminar: Health Promotion and Education. (4) Seminar, 90 minutes; discussion, 90 minutes. Requisite: course 210. Current problems and issues in planning and delivering health 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. Communication in Health Promotion and Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Design, implementation, and evaluation of interpersonal communication strategies for health promotion programs. Equal emphasis on communication theories, models, and empirical research literature and on specific applications in health programs and case studies. Letter grading.

283. Aging and Health Behavior. (4) (Same as Sociology M210.) Lecture, two hours. Requisite: course 210. Graduate seminar intended to explore sociocultural determinants of health-related behaviors among the aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4) Discussion, three hours. Designed for graduate students. Examination of how society shapes mental health of its members and lives of those who have been identified as mentally ill. Group differences (e.g., gender, ethnicity) in disorder and how it is socially constructed. Letter grading.

285. Aging, Health, and Society. (4) (Same as Sociology M214.) Lecture, three hours; discussion, one hour. General introduction to major social issues of aging in health, family life, and health care in America. Leading gerontological theories and major issues that affect the aged, showing how these theories and issues influence health status, health promotion, and illness among the elderly. S/U or letter grading.

286. Doctoral Roundtable in Community Health Sciences. (2 to 4) Seminar, two hours. Designed for departmental doctoral students. Interactive seminar with focus on research process and social mechanisms in science. May be repeated for credit. S/U or letter grading.

287. Politics of Health Policy. (4) (Same as Health Services M287.) Lecture, three hours; discussion, one hour. Requisites: course 210, or Health Services 200A and 200B. Examination of politics of health policy process, including effects of political structure, stakeholders, and social factors; interest groups, classes, and social movements; media and public opinion; and other factors. Letter grading.

288A-288B. Current Problems in Health Education. (4-4) Lecture, one hour; discussion, three hours. Preparation: three public health and/or social sciences courses. Requisite: course 210. Current problems and findings in health education content areas, such as nutrition, mental health, family health, consumer health, safety, and communicable and chronic diseases. In Progress and S/U grading.

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Experience of aging for African American, Latino, and Asian elderly examined in context of their families, communities, and the nation. Exploration of cultural and structural influences on health and lived experiences of those elders. Letter grading.

291. Health Policy and the Aged. (4) Lecture, three hours; discussion, one hour. Examination of political, economic, and social forces that shape health policy for the elderly. Examination of tools and policies within the framework of broader health policy problems. Letter grading.

292. Communication and Media Development in Health Promotion/Education. (4) Lecture, two hours; field practice, one hour. Requisites: course 210 or prior social sciences courses. Selected aspects of communications planning, social marketing, mass media, and communications evaluation theory and practice. 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 directed toward identification of psychosocial, biobehavioral, environmental, and community factors related to prevention and control of AIDS/HIV. Letter grading.

294. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Formerly numbered 292.) (Same as Psychiatry M288.) Lecture, four hours. Requisites: course 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors which influence transmission and prevention of HIV/AIDS throughout the world. Letter grading.

295. Selected Topics in Disaster Relief and Humanitarian Assistance. (2) Lecture, two hours. Designed for graduate students. Overview of broad interdisciplinary issues which necessarily converge in fields of disaster preparedness and humanitarian assistance. Introduction to both theoretical and problem-solving strategies. 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. Students must learn about current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U or letter grading.

297. Intervention to Reduce HIV and Its Consequences. (4) (Same as Psychiatry M297.) Lecture, four hours. Examination of interventions to reduce HIV/AIDS transmission. Review of theory and research supporting efficacy of HIV interventions for a variety of high-risk populations. Letter grading.

400. Field Studies in Public Health. (2 or 4) Fieldwork to be arranged. Field observation and studies in selected community organizations for health promotion or health care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units must be applied toward M.P.H. minimum total required for M.P.H. degree. Letter grading.

M411. Issues in Cancer Prevention and Control. (4) (Same as Health Services M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of the cancer epidemic, cancer control goals for the nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dimensions of psychosocial, and lifestyle changes. Letter grading.

M418. Rapid Epidemiologic Surveys in Developing Countries. (4) (Same as Epidemiology M418.) Lecture, four hours; Requisites: Biostatistics 100A, Epidemiology 100 and/or 200. Preparation of how to do health surveys in Third World countries. Practical assistance for planning and organizing surveys, including use of microcomputers to develop and test the data collection form, entering data and analyzing data, and prepare final report. Letter grading.

M420. Children with Special Health Care Needs: Systems Perspective. (4) (Same as Social Welfare M420.) Lecture, three hours, one hour. Examination and evaluation of policies, programs, and practices which 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.
425. Child Advocacy: Skills for Effective Action. (4) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Use of case method approach to involve students both in classroom discussions and in fieldwork projects about which they update classmates. Highly respected leaders for children in the community share experiences and offer insight. Letter grading.

426. School-Linked Services: Integrated Health, Education, and Social Services for Children in Communities. (4) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Examination of school services in context of other dramatic changes, scope of problems facing youth, roles that schools may serve as organizers/delivery sites for comprehensive services, and factors that influence development of appropriate school service models. Letter grading.

430B. Advanced Issues in International Health. (4) Lecture, two hours; discussion, two hours. In-depth focus on major health care issues confronting recipient less-developed countries and donors of technical and financial assistance. S/U or letter grading.

432. Perinatal Health Care: Principles, Programs, and Policies. (4) Lecture, three hours; discussion, one hour. Comprehensive examination of perinatal health care, including perinatal epidemiology, outcomes measures, public programs, controversies surrounding new technology, regionalization, organization of services at federal, state, and county levels, health care, including perinatal epidemiology, outcomes 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.

433. Reproductive Health: Demographic Applications. (4) Lecture, four hours. Introductory aspects of population dynamics; reproductive biology (male and female); contraceptive methods; fertility-related behaviors and STDs; methods to measure contraceptive (life table) programs and program (evaluation) effectiveness. 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. Particular reference to adapting programs to limited resources in cross-cultural milieu. S/U or letter grading.

434B. Recent Developments in Maternal and Child Health in Disadvantaged Countries. (2) Seminar, two hours. Requisite: course 231. Analytic in-depth consideration of recent advances in the field of international maternal and child health, with special reference to developing countries. S/U or letter grading.

435. Seminar: Advanced Issues in Women's Health. (4) Seminar, three hours. Preparation: at least one 200 level course. Requisite: introduction to two biostatistics courses, one research methods course. Provides a more advanced and in-depth understanding of ways in which scientists “know” and consider-ations of women’s place in scientific discourse. Examination of a series of case studies as a starting point for discussion. Letter grading.

M436A-M436B. Child Health, Programs, and Policies. (4-4) (Same as Health Services M449A-M449B.) Lecture, four hours. Requisite: Health Services 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.

437. Principles and Practice of Preventive Medicine. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Comprehensive review and evaluation of scientific background and application of principles of preventive medicine, with primary focus on the family and the disadvantaged. Letter grading.

438. Research Seminar: Community Child Health Services. (2) Lecture, one hour; laboratory, one hour; field trips, two hours. Examination and development of evaluation strategies for existing community child health services at the local level and development of evaluation strategies for selected topics in programmatic areas. Emphasis on collaborative research and consultation skills, with participation of local health department personnel. S/U or letter grading.

441. Advanced Program Planning and Evaluation in International Health. (4) Lecture, two hours; discussion, two hours. Theory, guidelines, and team exercise for planning community health/family planning projects in the U.S. and in developing countries. Phases include community needs identification; goal setting; budget and work plan development; funding; staffing; evaluation design; data and cost analysis; and project presentation. Letter grading.


444. Anthropometric and Dietary Aspects of Nutritional Assessment. (4) Lecture, two hours; laboratory, two hours. Requisite: course 443. Practical skills in anthropometric and dietary assessment, including selection of appropriate methods, data gathering and handling, and analysis and presentation. Letter grading.

446. Food and Nutrition Planning: Policies and Programs in World Context. (4) Lecture, two hours; discussion, two hours. Requisite: course 434A. Discussion of policies regarding improvement of food supplies and their global impact on health of disadvantaged families, including review of effect of many factors, with emphasis on need for multidisciplinary action, food and nutrition planning, and external assistance. S/U or letter grading.


448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours; field visits. Preparation: one nutrition sciences course and/or nutrition program experience. Nutrition programs and policies in the U.S. and developing countries compared and contrasted. Analysis of role of major international, governmental, and private agencies. Emphasis on meeting needs of vulnerable populations. Letter grading.

449. Nutrition and Chronic Disease. (4) Lecture, four hours. Preparation: one or undergraduate course each in chemistry, biochemistry, physiology, and nutritional sciences, or M.D. degree. Advanced-level seminar 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.


M470. Introduction to Occupational and Environmental Health Education. (2 or 4) (Same as Urban Planning M470.) Lecture, three hours. Preparation: at least two social science courses. Designed to provide students with understanding of problems area of occupational and environmental health and education interventions which can be applied. Letter grading.

474. Self-Care and Self-Help in Community Health. (4) Lecture, two hours; discussion, two hours. Review of background, principles, concepts, programs, and research concerning the emerging field of self-care in health. S/U or letter grading.

480. Health Education in Clinical Settings. (4) Lecture, two hours; discussion, two hours. Requisites: courses 271, 282, Health Services 100. Analysis of role, methods, and techniques of health education pertaining to hospitals, clinics, and patient education. Observation and discussion of clinical activities in the medical center in relation to the process of health education. 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.

483. Leadership Development and Empowerment for Health Promotion and Health Education. (4) Lecture, three hours; discussion, one hour. Requisites: courses 210, 211A, 211B. Development of basic understanding of and leadership development and empowerment for health promotion in multicultural and distressed communities (e.g., south-central Los Angeles). 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. Lecture and workshop includes developing grant proposals, researching funding sources, evaluating proposals, developing volunteer and in-kind resources, and implementing capital campaigns. Letter grading.


490. Professional Writing for Public Health. (2) Lecture, two hours. Practice in writing reports, grant proposals, abstracts, and article-length research papers. Attention to style, organization, and editing techniques of essays in various professional journals to help participants improve both their prose style and their editorial abilities. S/U or letter grading.

495A. Teacher Preparation in Public Health. (2) Formerly numbered 495. 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.

495B. Teaching in Public Health. (4) Lecture, three hours. Limited to School of Public Health doctoral students. Preparation of advanced doctoral students for teaching responsibilities in university career. Although classroom teaching to be emphasized, in-formation and ideas can be applied to other educational and training settings. 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. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward M.P.H. and M.S. 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 8) Tutorial, to be arranged. Only 4 units may be applied toward M.P.H. and M.S. 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 8) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Scope and Objectives
Standing at the forefront of innovative literary analysis and criticism, comparative literature is one of the most exciting fields in the humanities. As a discipline it requires exceptional linguistic ability and high intellectual caliber. UCLA's program offers students the opportunity to work with faculty in any of the University's language and literature departments as well as with the Comparative Literature Department faculty.

Comparative literature at UCLA focuses on those elements which define literature in general, such as genre, period, theme, language, and theory. Courses are designed to provide students with a historical understanding of the concepts of genre and period by studying specific genres and periods or literary movements. Paradigmatic or thematic courses offer another way of examining literature synchronically or diachronically regardless of language boundaries.

Courses in literary criticism and theory inquire into the premises of specific critical approaches, and of criticism itself, in order to provide further insight into the intellectual and moral concerns of literature and the world it reflects. Thus, through the study of these various assumptions and aspects of literature and criticism, students learn not only to cross linguistic boundaries, but to join them — to compare and to contrast, to analyze and, finally, to synthesize the text and the subtext, the structure and the history which define, undermine, and transcend the text and its reader.

Undergraduate Study
Comparative Literature B.A.

Preparation for the Major

Required: Two courses from the Comparative Literature 1 or 2 series or comparable lower division courses in other departments; completion of the College English Composition requirement; literary proficiency in at least one language other than English, to be demonstrated by successful completion of (1) two years of the college language sequence or its equivalent or (2) an upper division literature course in the original language.

Transfer Students

To be admitted as Comparative Literature majors, transfer students 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 world or English literature survey courses, and two years of one foreign language.

The Major

Required: Thirteen courses, of which (1) a minimum of four must be from comparative literature offerings, including Comparative Literature 100 and at least three additional comparative literature courses selected from M101 through 197; (2) four upper division literature courses using original language texts in the major language area; (3) three upper division literature courses using original language texts in the minor language area (students may petition the undergraduate adviser to take three upper division literature courses in translation if their major area is in a language other than English); (4) two upper division electives in a third language or a field such as anthropology, art, art history, classics, East Asian languages and cultures, film, folklore, history, music, philosophy, or political theory, to be selected in consultation with the undergraduate adviser.

Honors Program

The honors program is open to Comparative Literature majors with a 3.5 departmental and a 3.25 overall grade-point average. Eligible interested students should contact the undergraduate adviser to enter the program.

Honors candidates must complete all requirements for the major and an honors research paper (in addition to regular course requirements) in two of the four required upper division comparative literature courses. Students must also complete Comparative Literature 197H with a core faculty member in which they write a senior honors thesis 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 English Composition requirement, have completed 40 units with an overall grade-point average of 2.0 or better, have taken at least one year or equivalent of a language other than English, and file a petition with either the faculty or staff undergraduate adviser, 212 Royce Hall, (310) 825-4620.

Required Courses (28 units): (1) Four upper division comparative literature courses (one course from Comparative Literature 1A through 2DW 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.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.
Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) 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 Subject A 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 *Odyssey*, *Iliad* or *Odyssey*; Greek tragedies, portions of the Bible, Virgil, Petronius, St. Augustine, and others such as *Divine Comedy*, *Canterbury Tales*, *Don Quixote*, Calderón, Molière, and Racine. P/NP or letter grading.

1B. World Literature: Middle Ages to the 17th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Not open for credit to students with credit for course 2BW or 4BW. Study of major texts in world literature, with emphasis on Western civilization. Texts include works and authors such as Chaucer’s *Canterbury Tales*, Dante’s *Divine Comedy*, Boccaccio’s *Decameron*, Cervantes’ *Don Quixote*, Shakespeare, Calderón, Molière, and Racine. P/NP or letter grading.

1C. World Literature: Age of Enlightenment to the 20th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A 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. Texts include major works and authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5)
Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. 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 Swift, Voltaire, Diderot, Rousseau, Goethe, M. Shelley, Flaubert, Ibsen, Strindberg, Dostoevsky, Gogol, Kafka, Joyce, Beckett, L. Hughes, and Garcia Marquez. Satisfies Letters and Science Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to the 17th Century. (5)
Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1B or 2BW. Study of selected texts from Middle Ages to the 17th century, with emphasis on literary analysis and expository writing. Texts include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to the 20th Century. (5)
Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1C or 2CW. Study of selected texts from the Age of Enlightenment to the 20th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Racine, Racine. Texts may include works by authors such as Sappho, Greek tragedies, Virgil, Petrarch, Dante, Boccaccio, Chaucer, Cervantes, Molière, and Racine. Satisfies Letters and Science Writing II requirement. Letter grading.

2DW. Survey of Literature: Great Books from the World at Large. (5)
Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1D or 2DW. Study of major literary texts usually overlooked in courses that focus only on the canon of Western literature, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

2B. World Literature: Middle Ages to the 17th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Not open for credit to students with credit for course 1B or 2BW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

4AW. Literature and Writing: Antiquity to Middle Ages. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1A or 2AW. Study and discussion of selected texts from the Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as *Odyssey*, *Iliad*, *Gigantomachy*, Sappho, Greek tragedies, Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

4BW. Literature and Writing: Middle Ages to the 17th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1B or 2BW. Study and discussion of selected texts from the Middle Ages to the 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as *Odyssey*, *Iliad*, *Gigantomachy*, Sappho, Greek tragedies, Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

4CW. Literature and Writing: Age of Enlightenment to the 20th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1C or 2CW. Study and discussion of selected texts from the Age of Enlightenment to the 20th century, with emphasis on literary analysis and expository writing. Texts include works and authors such as Chaucer, Dante’s *Divine Comedy*, Cervantes’ *Don Quixote*, Shakespeare, Calderón, Molière, and Racine. Satisfies Letters and Science Writing II requirement. Letter grading.

4DW. Literature and Writing: Great Books from the World at Large. (5)
Lecture, four hours. Enforced requisite: English Composition 3 or 3H. 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 the canon of Western literature, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Letters and Science Writing II requirement. Letter grading.

Upper Division Courses
100. Introduction to Comparative Literature: Histories, Theories, Practices, and Perspectives. (5)
Lecture, four hours. Preparation: satisfaction of Subject A and English Composition requirements. Required: two courses from Comparative Literature 1 or 2 series or English 10 series or Spanish 60 series, etc. Seminar-style introduction to discipline of comparative literature presented through a series of texts illustrative of its formation and practice. Letter grading.

M101. Hebrew Literature in English — Literary Traditions of Ancient Israel: Bible and Apocrypha. (4)
(Same as Jewish Studies M150A.) Lecture, three hours. Study of literary culture of ancient Israel through examination of principal compositional strategies of the Hebrew Bible and the Apocrypha (read in translation). P/NP or letter grading.

102. Classical Tradition: Epic. (4)
Seminar, three hours. Designed for upper division literature majors. Analysis of *Iliad*, *Odyssey*, *Aeneid*, *Gerusalemme Liberata*, and *Paradise Lost* both in relation to their contemporary societies and to literary traditions. Emphasis on how poets build on work of their predecessors. P/NP or letter grading.

103. Classical Tradition: Tragedy. (4)
Seminar, three hours. Designed for juniors/seniors. Analysis of selected Greek, Roman, and European tragedies in Rome, in the Renaissance, and in the modern period. P/NP or letter grading.

C104. Satire. (4)
Lecture, three hours. Designed for juniors/seniors. Examination of satire both in texts generally recognized as models of the genre as well as in others, including examples of satirical discourse. Special attention to two important literary problems: role played by authors and narrators in relation to treatment of characters before possible audiences and importance of contextual values in interpretation of satire. Concurrently scheduled with course C204. Undergraduates read all texts in translation. P/NP or letter grading.

C105. Comic Vision. (4)
Lecture, three hours. Designed for upper division literature majors. Literary masterpieces, both dramatic and nondramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C205. Undergraduates read all works in translation. P/NP or letter grading.

106. Archetypal Heroes in Literature. (4)
Seminar, three hours. Designed for juniors/seniors. Survey and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to the modern period. All works read in translation. P/NP or letter grading.
C108. Saints' Lives as Literature. (4) Lecture, three hours. Designed for juniors/seniors. Examination of genre of saints' lives. Development of Western European tradition from late classical to early modern period; connections between the saint's life and other forms of literature; comparative considerations (e.g., the Western European saint's life and classical and Roman biography, Islamic traditions, and Buddhist traditions). Concurrently scheduled with course C208. P/NP or letter grading.

C109. Love, Deceit, and Truth: Tristan and Isolde Legend in Literary Tradition. (4) Lecture, three hours. Tracing of history and literary treatment of one of most enduring "myths" of medieval and modern storytelling: tale of ill-fated love triangle as exemplified in figures of Tristan and Isolde. Literary texts to be read in translation, but comparative literature students encouraged to read texts in original language. Concurrently scheduled with course C209. P/NP or letter grading.

120. The Individual and Society in the Renaissance. (4) Lecture, three hours; discussion, one hour. Requisite: one course from 1A, 1B, 1C, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Explorations of self in Western man's relation to his world, himself, and his art; reading of such works as Don Quixote, Montaigne's Essays, Gargantua and Pantagruel, The Praise of Folly, Utopia. 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 the Renaissance, with consideration of historical and dramatic elements of the plays. Readings include works of such dramatists as Tasso, Machiaveli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduates read all works in translation, P/NP or letter grading.

C140. Dramatic Theory and Criticism in German and English Romanticism. (4) Seminar, three hours. Designed for upper division literature majors. Generic conception of drama in critical essays of the Schlegels, Tieck, Jean Paul, Coleridge, De Quincey, and Hazlitt, with emphasis on role of the actor and the idea of dramatic action as discussed by the critics. May be concurrently scheduled with course C240. Undergraduates read all works in translation, P/NP or letter grading.

C150. The 19th-Century Novel. (4) Seminar, three hours. Designed for upper division literature majors. Comparative study of the 19th-century novel in England and on the continent. Novels selected so as to allow seminar to concentrate on a particular tradition or critical problem. May be concurrently scheduled with course C250. Undergraduates read all works in translation. P/NP or letter grading.

C151. Crisis of Authority. (4) Seminar, three hours. Designed for juniors/seniors. Darwin's Origin of Species undermines the notion of a traditional fatherly God and reflects a major transition between the 19th and 20th centuries. Threat to, or collapse of, a divinely authorized and male-dominated society appears in writers such as G. Eliot, Zola, Ibsen, Strindberg, Conrad, Hardy, Woolf, and Camus. May be concurrently scheduled with course C251. P/NP or letter grading.

C152. Symbolist Tradition in Poetry. (4) Seminar, three hours. Designed for upper division literature majors. Study of symbolist tradition in 19th- and 20th-century English, French, and German poetry. May be concurrently scheduled with course C252. Undergraduates read all works in translation, P/NP or letter grading.

C153. Poetry and Poetics of Post-Symbolist Period. (4) Lecture, three hours. Designed for juniors/seniors. Study of poetic trends, such as surrealism or imagism, in poetry in first half of the 20th century. Texts may include poets such as W.B. Yeats, E. Pound, T.S. Eliot, Marianne Moore, Paul Valery, Stefan George, R.M. Rilke, Gunnar Ekelot, or Wallace Stevens. May be concurrently scheduled with course C253. Undergraduates read all works in translation. P/NP or letter grading.

154. Adventures of the Avant-Garde. (4) Seminar, three hours. Designed for upper division literature majors. Interdisciplinary study of avant-garde literature and art, including futurism, Dadaism, Expressionism, Surrealism, new avant-gardes. Works by Marinetti, Boccioni, Picasso, Stein, Malevich, Popova, Malevsky, Brecht, Fritz Lang, Duchamp, Breton, Buber, Marinetti, Picasso, Malevsky, and Malevsky. Focus on new forms of literature and art, and ways that the artist, the writer, and the reader transcribe artistic and moral questions. P/NP or letter grading.

158. Colonial Encounters. (4) Seminar, three hours. Discussion of how a Western textual system restricts cultures of colonized peoples to an encounter with the European. As a means of understanding limits to a European frame of reference, reading of English literature works alongside their postcolonial counterparts. Investigation of how reversal of perspective affects the telling of a tale. P/NP or letter grading.

159. Four Modern Dramatists. (4) Lecture, three hours. Study of several works by four major modern dramatists, focusing on understanding specific elements in each work and authors' possible interrelations, Pirandello, Beckett, and Pinter are read; fourth author is selected from Ionesco, Genaudoux, Cocteau, P/NP or letter grading.

160. Topics in 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 art are in some degree expressions of cultural and philosophical patterns 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 C260. Undergraduates 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 the 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, Verga, Tomasi di Lampedusa, Carpenter, 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.

C163. Crisis of Consciousness in Modern Literature. (4) Seminar, three hours. Designed for upper division literature majors. Study of modern European and American works which are concerned both in subject matter and artistic methods with the growing self-consciousness of human beings and their society, focusing on works of Kafka, Rilke, Woolf, Sarthe, and Stevens. May be concurrently scheduled with course C263. Undergraduates read all works in translation, P/NP or letter grading.

C164. The Modern Continental Novel. (4) Seminar, three hours. Designed for upper division literature majors. Study of the modern novel's development from naturalism through a symbolic or symbolic level. Use of authors such as Gide, Proust, Mann, Joyce, Nabokov, and to focus on development of themes such as primitivism vs. authority, change vs. stability, and the self-conscious narrative. Concurrently scheduled with course C264. Undergraduates read all works in translation, P/NP or letter grading.

M165. The Holocaust in Literature. (4) (Same as Jewish Studies M187.) Lecture, three hours. Requi- site: History 191E or 191F or M191G. Investigation of how the Holocaust informs a variety of literary and cinematic works and impact 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 re- sponses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, German, Russian, French, and Hebrew analysis of formal aspects of each work. P/NP or letter grading.

C167. Theory and Texts of the Fantastic. (4) Semi- nar, three hours. Designed for upper division literature majors. Attempt to define the fantastic as a theoretical genre and relate it to the wide range of fantastic. Critical texts by Todrov and Brooke-Rose. Primary texts by Hoffmann, Nerval, James, Poe, Borges, Casares, Cortazar, Landolfi, and Calvino. May be concurrently scheduled with course C267. Undergraduates read all works in translation, P/NP or letter grading.

M168. Korean American Literature. (4) (Same as Asian American Studies M132A.) Seminar, three hours. Comprehensive introduction to Korean Ameri- can literature, with emphasis on Korean American ex- perience, problems of gender, race, and class, nation- alism, generational relationships, and impact of tradi- tional Korean culture on Korean American literature. P/NP or letter grading.

169. Continental African Authors. (4) Lecture, three hours. Requisite: one course from 1A, 1B, 1C, 2AW, 2BW, 2CW, or English Composition 3 or 3H. In- troduces new set of African authors and attempt to discern similarities or differences they may have with major authors such as Achebe, Ngugi, Amahay, Soyinka, etc. P/NP or letter grading.


C172. The Postmodern Novel. (4) Seminar, three hours. Designed for upper division literature majors. Study of the postmodern novel as it developed out of modernism. Postmodernism defined in three different ways — philosophically, scientifically, and economi- cally. Emphasis on relationship of recent novels to theories of structuralism and poststructuralism. Read- ings include authors such as Borges, Beckett, Nabok- ov, Pynchon, Fuentes, Grass, Böll, and Calvino. Con-currently scheduled with course C272. Undergradu- ates read all works in translation, P/NP or letter grading.

C173. Postmodernism and the Third World. (4) Seminar, three hours. Exploration of intersection be- tween concepts of postmodernism and Third World culture and politics, including topics such as post- Modernism and revolution; historical thought; gender, ethnicity, imperialism, and their relationship to cultural politics; and recent Latin American literary produc- tion. Concurrently scheduled with course C273. P/NP or letter grading.

M174, Film and Literature of the Spanish-Speak- ing World. (4) (Same as Spanish M161.) Lecture, three hours. Exploration of perceptions of reality ofle by different authors from Spain, Latin America, and the Caribbean on Mexican culture. P/NP or letter grading.
M175. Topics in Southeast Asian Literature. (4) (Same as South and Southeast Asian Languages M130.) Lecture. Restricted to one course from 1A, 1B, 1C, 1D, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Knowledge of Southeast Asian languages not required. Advanced exploration of Southeast Asia through in-depth reading of texts from the region. Topics include censorship, politics, language, and literature. P/NP or letter grading.


190. Semiotics of Story and Film. (4) Seminar, three hours. Designed for upper division literature majors. Investigation of theoretical aspects of semiotics and their application to specific narratives in prose and film. P/NP or letter grading.

192. Walter Benjamin’s Literary Criticism. (4) Seminar, three hours. Designed for juniors/senior. Some knowledge of German desirable but not required, as all texts are available in English translation. Walter Benjamin’s work in recent years as one of the most influential critics of the 20th century. Course approaches his work primarily through a reading of his specifically literary criticism which occupies a central place in his work. P/NP or letter grading.

194. Variable Topics. (4) Seminar, three hours. Designed for juniors/seniors. Study of limited periods and specialized issues and approaches in literary theory, especially in relation to other modes of discourse such as history, philosophy, psychology, linguistics, anthropology. Consult Schedule of Classes for topics to be offered in a specific term. May be repeated for credit with topic change. P/NP or letter grading.


C196. Feminist and Gender Theory. (4) Seminar, three hours. Investigation of particular theoretical issues in feminism and gender studies, including topics such as critical problems of representation, feminism and queer theory, or intersections with postmodernism, poststructuralism, or postcolonialism. Concurrently scheduled with course C296. P/NP or letter grading.

197. Senior Essay. (4) Lecture, three hours. Limited to senior Comparative Literature majors. Research essay on a comparative topic selected by the student and written under supervision of a core faculty member. P/NP or letter grading.

197H. Honors Senior Essay. (2 to 6) Lecture, two to six hours. Limited to senior comparative literature honors students. Research essay on a comparative topic selected by the student and written under supervision of a core faculty member. Students expected to meet regularly with supervisor throughout term. May be repeated once for a maximum of 8 units. No more than one course may be used to fulfill the four-course requirement for Comparative Literature majors. P/NP or letter grading.

199. Special Studies in Comparative Literature. (2 to 4) Requisite: course 190. May be repeated for credit with consent of chair. P/NP or letter grading.

Graduate Courses

200. Methodology of Comparative Literature. (6) Seminar, four hours. Study of primary research in comparative literature and theory of literature.

202. Classical Tradition: Epic. (4) Seminar, three hours. Preparation: reading knowledge of Greek, Latin, or Italian. Analysis of Iliad, Odyssey, Aeneid, Gerusalemme Liberata, and Paradise Lost in relation to their contemporary societies and to literary traditions. Emphasis on how poets build on work of their predecessors.

203. Classical Tradition: Tragedy. (4) Seminar, three hours. Preparation: knowledge of one appropri- ate foreign language, usually Greek or French. Analysis of selected Greek dramas and their re-creations in Rome, in the Renaissance, and in the modern period. S/U or letter grading.

204. Satire. (4) Lecture, three hours. Examination of satire in texts generally recognized as models of the genre as well as in others, including examples of satirical discourse. Special attention to two important literary problems: role played by authors and narrators in relation to treatment of characters before possible audiences and importance of contextual val- ues in interpretation of satire. Concurrently scheduled with course C104. Graduate students required to pre- pare papers based on texts read in original languages whenever possible and may meet as a group one addi- tional hour each week. S/U or letter grading.

205. Comic Vision. (4) Lecture, three hours. Prepar- ation: reading knowledge of one appropriate foreign language. Literary masterpieces, both dramatic and nondramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C105. Graduate students required to pre- pare papers based on texts read in original languages and to meet additional one hour each week. S/U or letter grading.

206. Archetypal Heroes in Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Or- eus in literature from antiquity to the modern peri- od. S/U or letter grading.

207. Allegory and Some Allegories. (4) Seminar, three hours. Preparation: reading knowledge of French, German, Italian, Latin, Greek, or Chinese. Designed for graduate students. Historical perspec- tive on topic of allegory, with readings from texts tradi- tionally held to be genre. Defining alleg- ory is simple; saying which works count as exam- ples of allegory, and why, is much harder. Authors include Prudentius, Augustine, Dante, Spenser, Donne, Tung Yueh, Hegel, Baudeau, and Mallarmé. S/U or letter grading.

208. Saints’ Lives as Literature. (4) Seminar,three hours. Preparation: reading knowledge of one appropri- ate foreign language. Designed for graduate students. Examination of genre of the saint’s life as it develops in Western European tradition from late clas- sical to early modern period; connections be- tween the saint’s life and other forms of literature; connections and correlations (e.g., with the Western Euro- pean saint’s life and Classical and Roman biogra- phy, Islamic traditions, and Buddhist traditions). Concurrently scheduled with course C108. S/U or letter grading.


C222. Renaissance Drama. (4) Lecture, three hours. Preparation: reading knowledge of one appro- priate foreign language. Broad introduction to subject matter and types of plays in the Renaissance, with consideration of historical and literary influences on the 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 a group one additional hour each week. S/ U or letter grading.

C240. Dramatic Theory and Criticism in German and English Romanticism. (4) Seminar, three hours. Preparation: reading knowledge of German. Genres conception of drama in critical essays of the Schlegels, Tieck, Jean Paul, Coleridge, De Quincey, and Hazlitt, with emphasis on role of the actor and the idea of dramatic action as discussed by the crit- ics. May be concurrently scheduled with course C140. S/U or letter grading.


C251. Crisis of Authority. (4) Seminar, three hours. Preparation: reading knowledge of one appro- priate foreign language. Designed for graduate students. Darwin’s Origin of Species undermines the notion of a traditional fatherly God and reflects a major transition between the 19th and 20th centuries. Threat to, or collapse of, a divinely author(ized) and male-dominat- ed society appears in writers such as G. Eliot, Zola, Ibsen, Strindberg, Hardy, Woolf, and Camus. May be concurrently scheduled with course C151. Graduate students required to prepare papers based on texts read in original languages and may meet as a group one additional hour each week. S/U or letter grading.

C252. Symbolist Tradition in Poetry. (4) Seminar, three hours. Preparation: reading knowledge of either French or German. Study of symbolist tradition in 19th- and 20th-century English, French, and German poetry. May be concurrently scheduled with course C152. Graduate students required to prepare papers based on texts read in original languages and may meet as a group one additional hour each week. S/U or letter grading.

C253. Poetry and Poetics of Post-Symbolist Peri- od. (4) Lecture, three hours. Study of poetic trends, such as surrealism or imagism, and poets in first half of the 20th century. Texts may include poets such as W.B. Yeats, E. Pound, T.S. Eliot, Marianne Moore, Paul Valery, Stefan George, R.M. Rilke, Gunnar Ekelof, and Wallace Stevens. May be concurrently scheduled with course C153. S/U or letter grading.

C260. Topics in Literature and Visual Arts. (4) Lec- ture, three hours. Preparation: reading knowledge of one appropriate foreign language. Knowledge of art history valuable but not required. Assuming that liter- ature and visual arts are in some degree expressions of cultural and philosophical patterns of eras, study of relationships between writers and movements in painting, architecture, and sculpture. 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 C160. Graduate students required to read works in original languages. S/U or letter grading.
262. The Psychological Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European and American novels which are concerned both in subject matter and artistic methods with the growing self-consciousness of human beings and their society, focusing on works of Kafka, Proust, Mann, Joyce, Nabokov, and Grass to focus on development of themes such as primitivism vs. modernity, tradition vs. modernism, authority, change vs. stability, and the self-conscious relationship to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C163. Graduate students required to prepare papers based on texts read in original languages and to meet as a group one additional hour each week. S/U or letter grading.

263. Crisis of Consciousness in Modern Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European and American novels which are concerned both in subject matter and artistic methods with the growing self-consciousness of human beings and their society, focusing on works of Kafka, Proust, Mann, Joyce, Nabokov, and Grass to focus on development of themes such as primitivism vs. modernity, tradition vs. modernism, authority, change vs. stability, and the self-conscious relationship to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C163. Graduate students required to prepare papers based on texts read in original languages and to meet as a group one additional hour each week. S/U or letter grading.

264. The Modern Continental Novel. (4) Seminar, three hours. Preparation: reading knowledge of at least one appropriate foreign language. Study of the modern novel's development from naturalism toward a mythic or symbolic level. Use of authors such as Gide, Proust, Mann, Joyce, Nabokov, and Grass to focus on development of themes such as primitivism vs. modernity, tradition vs. modernism, authority, change vs. stability, and the self-conscious relationship to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C164. Graduate students required to prepare papers based on texts read in original languages and to meet as a group one additional hour each week. S/U or letter grading.

265. Intertextuality in Literature and Film. (4) Discussion, three hours. Study of relationships between literature and film from perspective of intertextuality grounded in the theoretical work of Jacques Derrida and elaborated by critics Barthes, Chatman, and Kristeva. Focus on processes of inscription, reiteration, transformation, filiation, and dissemination during consideration of representative types of intertextuality. S/U or letter grading.

266. Writing and the Photographic Image. (4) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Designed for graduate students. Investigation of intertextual relations between writing and photography in American and European contexts. Study rests on premise that a photograph enters public domain framed by writing and discourse and that, in turn, some forms of writing are framed by photographic modes of representation. S/U or letter grading.

267. Theory and Texts of the Fantastic. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Attempt to define the fantastic as a theoretical genre separate from the wider genre of fantasy. Critical texts by Todorov and Brooke-Kruse. Primary texts by Hoffmann, Nerval, James, Poe, Borges, Casares, Cortazar, Landolfi, and Calvino. May be concurrently scheduled with course C167. Graduate students required to prepare papers based on texts read in original languages and may meet as a group one additional hour each week. S/U or letter grading.

270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Exploration of intersection between concepts of postmodernism and Third World culture and politics, including topics such as post-Marxism and revolution; historical theories of gender, class, and sexuality; and the relation to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C173. S/U or letter grading.

271. Imaginary Women. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Examination of archetypal female figures in both traditional literatures and their re incarnations in modern African American, Anglo-American, Asian American, European, Native American, and Spanish-American literatures. Particular emphasis on women in the cultures and ideology of the authors. S/U or letter grading.

272. The Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of the postmodern novel as defined in three different ways — philosophically, scientifically, and economically. Emphasis on relationship of recent novels to theories of structuralism and postmodernism, and to works of influential authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Boli, and Calvino. Concurrently scheduled with course C172. Graduate students required to meet as a group one additional hour each week. S/U or letter grading.

273. Postmodernism and the Third World. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Exploration of intersection between concepts of postmodernism and Third World culture and politics, including topics such as post-Marxism and revolution; historical theories of gender, class, and sexuality; and the relation to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C173. S/U or letter grading.

274. Theorizing the Third World. (4) (Same as Asian American Studies M261.) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships between the so-called First World and Third World, using both theoretical and textual methodologies. Concurrently scheduled with course M274. S/U or letter grading.


276. Reading Modern Bodies. (4) (Same as Japanese M276.) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Designed for graduate students. Exploration of construction of human body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locales, with particular emphasis on Japan. S/U or letter grading.


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 a comparative context. May be repeated for credit. S/U or letter grading.

284. Theories of Translation. (4) Seminar, three hours. Examination of various approaches to concept of translation and to its role in literary studies. Readings include authors such as Matthew Arnold, Walter Benjamin, George Steiner, and Susan Bassnett. S/U or letter grading.
C296. Feminist and Gender Theory. (4) Seminar, three hours. Investigation of particular theoretical issues in feminism and gender studies, including topics such as critical problems of representation, feminism and queer theory, or intersections with postmodernism, poststructuralism, or postcolonialism. Concurrently scheduled with course C196. S/U or letter grading.

297. Death and the Limits of Representation. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Examination of fundamental shifts in the relationship that obtains between thinking and death which are closely tied to rethinking of the status and structure of representation. May be repeated once for credit. S/U or letter grading.

299. Analytic Philosophy and Literary Theory. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of literary theory through exploration of approaches to literature by philosophers grounded on analytic tradition. Careful attention to concepts of truth, meaning, expression, representation, metaphor, fiction, and literature. Letter grading.

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


596. Directed Individual Study or Research. (2 to 12) Limited to graduate comparative literature students. Necessary for students in comparative literature who need additional individual study and research. May be repeated for credit. S/U grading.


Joseph J. DiStefano III, Ph.D.
Michael G. Dyer, Ph.D.
Milo D. Ercegovac, Ph.D.
Deborah L. Estrin, Ph.D.
Mario Gerla, Ph.D.
Sheila A. Greibach, Ph.D.
Richard E. Korf, Ph.D.
Richard R. Munzt, Ph.D.
D. Stott Parker, Jr., Ph.D.
Miodrag Potkonjak, Ph.D.
Majid Sarrafzadeh, Ph.D.
Carlo A. Zaniolo, Ph.D. (Norman E. Friedman Professor of Knowledge Sciences)
Lixia Zhang, Ph.D.

Professors Emeriti
Aljdras A. Avizienis, Ph.D.
Bertram Russell, Ph.D.
Jack W. Caryle, Ph.D.
 Gerald Estrin, Ph.D.
Thelma Estrin, Ph.D.
Leonard Kleinrock, Ph.D.
Alien Klinger, Ph.D.
Lawrence P. McNamee, Ph.D.
Michel A. Melkanoff, Ph.D.
Judea Pearl, Ph.D.
Jacques J. Vidal, Ph.D.

Associate Professors
Adnan Y. Darwiche, Ph.D.
Eliezer M. Gafni, Ph.D.
Eliaos Koutsoupias, Ph.D.
David A. Rennels, Ph.D.
 Stefano Saotto, Ph.D.
Yuval Tamir, Ph.D.
Song-Chun Zhu, Ph.D.

Assistant Professors
Jungho (John) Cho, Ph.D.
Petros Faloutsos, Ph.D.
Songwu Lu, Ph.D.
Glenn D. Reinman, Ph.D.

Senior Lecturer
Leon Levine, M.S., Emeritus

Adjunct Professors
Andrew B. Kahng, Ph.D.
Alan Kay, Ph.D.
Boris Kogan, Ph.D.
Gerald J. Popek, Ph.D.

Adjunct Associate Professors
Leon Alkali, Ph.D.
Peter L. Reiher, Ph.D.

Lecturers S.O.E.
Paul R. Eggert, Ph.D.
David A. Smallberg, M.S.

Scope and Objectives
Computer science is concerned with the design, modeling, analysis, and applications of computer-related 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 provide comprehensive and integrated studies of subjects in computer system architecture, computer networks, distributed computer systems, programming languages and systems, information and data management, artificial intelligence, computer science theory, and scientific computing.

The undergraduate and graduate studies and research projects in computer science are supported by significant computing resources. In addition to the departmental computing facility, there are nearly a dozen laboratories specializing in areas such as distributed systems, multimedia computer communications, VLSI systems, VLSI CAD, and artificial intelligence. Also, the Cognitive Systems Laboratory is engaged in studying computer systems which emulate or support human reasoning. The Bio-cybernetics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

The Bachelor of Science degree may be attained either through the Computer Science and Engineering major or through the Computer Science major described below.

The Henry Samueli School of Engineering and Applied Science offers M.S. and Ph.D. degrees in Computer Science, as well as minor fields for graduate students seeking engineering degrees. In cooperation with the John E. Anderson Graduate School of Management, the Computer Science Department offers a concurrent degree program that enables students to obtain the M.S. in Computer Science and the M.B.A. (Master of Business Administration).

Undergraduate Study
Computer Science and Engineering B.S.

The computer science and engineering curriculum at UCLA provides 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 Engineering Departments. Within the curriculum students study all aspects of computer systems from electronic design through logic design, MSI, LSI, and VLSI concepts and device utilization, machine language design, implementation and programming, operating system concepts, systems programming, networking fundamentals, higher-level language skills, and application of these to systems. Students are prepared for employment in a wide spectrum of high-technology industries.

The computer science and engineering curriculum is accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

The Major
Course requirements are as follows (186 minimum units required):

1. Four core courses: Computer Science 31, 32, 33, M51A (or Electrical Engineering M16)

2. Computer Science 111, 118, 131, M151B (or Electrical Engineering M116C), 180, 181, Electrical Engineering 10, 102, 103, 110, 110L, 115A, 115AL, 115C, Statistics 110A; 6 laboratory units from Computer Science M152A (or Electrical Engineering
Computer Science B.S.

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.

The computer science curriculum is accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

The Major

Course requirements are as follows (182 minimum units required):

1. Four core courses: Computer Science 31, 32, 33, M51A (or Electrical Engineering M16)

2. Computer Science 111, 112, 118, 131, 132, M151B (or Electrical Engineering M116C), 161, 180, 181, Statistics 110A; Computer Science 170A or Electrical Engineering 103; 6 laboratory units from Computer Science M152A (or Electrical Engineering M116L) and M152B (or Electrical Engineering M116D)

3. Two elective upper division computer science courses

4. A minor or technical support area composed of three upper division courses selected from one of the following areas: astronomy, atmospheric sciences, biology, chemical engineering, chemistry and biochemistry, civil and environmental engineering, Earth and space sciences, economics, electrical engineering, information studies, linguistics, management, mathematics, science and engineering, mechanical and aerospace engineering, molecular biology, physics

5. Electrical Engineering 1, 2, Physics 1A, 1B, 4AL, 4BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details. Computer Science and Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Computer Science. A concurrent degree program (Computer Science M.S./Management M.B.A.) is also offered.

Computer Science

Lower Division Courses


33. Introduction to Computer Organization. (5) Lecture, four hours; discussion, two hours; outside study, nine hours. Enforced requisite: course 32. Limited to Computer Science and Electrical Engineering majors. Introductory course on computer architecture, assembly language, and operating systems fundamentals. Number systems, machine language, and assembly language. Procedure calls, stacks, interrupts, and traps. Assemblers, linkers, and loaders. Operating systems concepts; process and resource management, input/output (I/O) programming, memory management, file systems. Letter grading.


Upper Division Courses


112. Computer System Modeling Fundamentals. (4) Lecture, four hours; outside study, eight hours. Requisite: Statistics 110A. Designed for juniors/seniors. Basic tools necessary for performance evaluation and design of distributed computer systems, including such topics as combinatorics, generating functions, probability theory, transforms, Markov chains, baby queuing theory. Presentation of this set of tools in a fashion that is rich with examples from computer systems field. Letter grading.

117. Computer Networks: Physical Layer. (6) Lecture, four hours; discussion, four hours; outside study, 10 hours. Not open to students with credit for course M171L. Introduction to fundamental data communication concepts underlying and supporting modern network, with focus on physical and media access layers of network protocol stack. Systems include high-speed LANs (e.g., fast and gig Ethernet), optical DWDM (dense wavelength division multiplexing), time division SONET networks, wireless LANs (802.11), and ad hoc wireless and personal area networks (e.g., Bluetooth). Experimental laboratory sessions included. Letter grading.

M116L) and M152B (or Electrical Engineering M116D); one computer science/electrical engineering elective (excluding Electrical Engineering 100)

3. Four upper division elective courses from the Computer Science Department. Course 199 may normally be taken only as a free elective; however, students may petition for exceptions in extraordinary situations

4. Chemistry and Biochemistry 20A; Electrical Engineering 1, 2, Physics 1A, 1B, 4AL, 4BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details. Computer Science and Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements

6. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details. Computer Science majors must also select two additional humanities/social sciences courses and one additional life sciences course and are required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements. Chemistry 20A may be substituted for one of the life sciences courses

3. Two elective upper division computer science courses

130. Software Engineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisite: course 32. 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. Requisites: courses 32, 33. Study, comparison, and evaluation of alternative strategies for language specification, design, control, program modularity, instruction sequencing, and language implementations. Use of a few languages selected from FORTRAN 77, ADA, SNOBOL 4, LisP, MODULA 2, and PROLOG to illustrate particular implementations of some of above features. Letter grading.

132. Compiler Construction. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 32, 131, 181. Compiler structure; lexical and syntactic 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. Requisites: courses 32, 131, 181. Parallel processor architecture, with review of each layer. Specific functions required to operate computer communication systems. Letter grading.


M152A. Introudction to Data Analysis. (2) Same as Electrical Engineering M116L.) Laboratory, four hours; outside study, two hours. Requisite: course 11A or Electrical Engineering M16. Hands-on design, implementation, and debugging of digital circuit designs, use of computer-aided design tools for schematic capture and simulation, implementation of complex logic, and hardware description languages. Letter grading.

M152B. Digital Design Project Laboratory. (2) Same as Electrical Engineering M116D.) Laboratory, four hours; discussion, two hours; outside study, six hours. Requisite: course M151 or Electrical Engineering M116C. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., LISP processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. Letter grading.


171. Real-Time Computer Systems. (4) Lecture, four hours; outside study, eight hours. Designed for seniors and graduate students in computer science. Survey of real-time software. Emphasis on hardware and systems concepts. Adapting digital computers to interfaces, including multiprocessing, bus structure, interrupt, and time-sharing considerations. Communication and remote consoles, sampling, quantizing, multiplexing, analog-digital conversion, and data reconstruction. Letter grading.

M171L. Data Communication Systems Laboratory. (2 to 4) (Formerly numbered 171L.) (Same as Electrical Engineering M171L.) Laboratory, four hours to eight hours; outside study, two to four hours. Recommended preparation: courses M152A, 171. Limited to seniors. Interoperability of analog signals and digital signals in computer systems. Digital communication, radiofrequency waves, antennas, and modulation techniques. Letter grading.


180. Introduction to Algorithms and Complexity. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32, and Mathematics 61 or 113. Designed for seniors or graduate students. Formal Comput- er Science majors. Introduction to design and analy- sis of algorithms. Design techniques: divide-and-conquer, greedy method, dynamic programming; selection algorithms; analysis of algorithms; choice of data structures and representations; complexity measures: time, space, upper, lower bounds, asymptotic com- plexity, NP-complete problems. Letter grading.


190. Computer Science Design Projects. (4) Lecture, four hours; outside study, eight hours. Preparation: adequate background in hardware, software, and computer applications. Limited to senior Comput- er Science and Engineering majors and senior Com- puter Engineering and Computer Engineering majors. Hands-on design and implementation of computer science projects, including interpretation of specifications, subtasking, design of experiments, data analysis and performance evaluation, cost engi- neering, reliability, and societal and safety considera- tions. Letter grading.

M196A. Introduction to Cybernetics, Biomodeling, and Biomedical Computing. (2) (Formerly num- bered 196A.) (Same as Biomedical Engineering M196A and Cybernetics M196A.) Lecture, two hours. Requisites: Mathematics 31A, 31B, Program in Computer 10A. Strongly recommended for students with potential for research in biomedical science or computer science. (2) (Formerly numbered 196A.) Introduction to design, implementation, and debugging of computer programs for studying biomedical systems. Basics of numerical simulation algorithms, translating biomod- eling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

M196B. Computational Systems Biology: Model- ing and Simulation of Biological Systems. (5) (Same as Biomedical Engineering CM196A, Biome- dicines M196B, and Medicine M196B.) Lecture, four hours; discussion, one hour; laboratory, two hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to computer system simulation, compartmental modeling, and computer simulation methods for studying biomedical systems. Basics of numerical simulation algorithms, translating biomod- eling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

CM196L. Biomedical Systems/Biocybernetics Re- search Laboratory. (2 to 4) (Same as Biomedical Engineering CM196L and Cybernetics M196L.) Lecture, two hours; laboratory, two hours. Requisite: course M196B. Special laboratory techniques and experi- ences in biocybernetics research. Laboratory instru- ments, their use, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Com- prehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM296L. Letter grading.

198. Special Studies in Computer Science. (4) Lecture, four hours; outside study, eight hours. Study of selected topics in computer science taught by resi- dent and visiting faculty members. Letter grading.
Graduate Courses

201. Computer Science Seminar. (2) Seminar, four hours; outside study, two hours. Designed for gradu- ate computer science students. Seminars on current research topics in computer science. May be repeat- ed for credit. S/U grading.

202. Advanced Computer Science Seminar. (4) Seminar, four hours; outside study, eight hours. Prep- aration and completion of major field examination in com- puter science. Current computer science research into theory of, analysis and synthesis of, and applica- tions of information processing systems. Each mem- ber completes one tutorial and one or more original pieces of work in the specialized area. May be repeat- ed for credit. Letter grading.

211. Network Protocol and Systems Software De- sign for Wireless and Mobile Internet. (4) Lecture, four hours; outside study, eight hours. Requirements: course 118. Designed for graduate students. In-depth study of network protocol and systems software de- sign in areas of wireless and mobile Internet. Topics in- clude (1) networking fundamentals: design philoso- phy of TCP/IP; end-to-end arguments, and protocol design principles, (2) networking protocols: 802.11 MAC standard, packet scheduling, mobile IP; ad hoc routing, and wireless TCP; (3) mobile computing sys- tems software: middleware, file system, services, and applications, and (4) topical studies: energy-efficient design, security, system management, and quality of service. Letter grading.


212B. Queueing Applications: Scheduling Algo- rithms and Queueing Networks. (4) Lecture, four hours; outside study, eight hours. Requisite: course 212A. Priority queueing. Applications to time-sharing scheduling algorithms: FB, Round Robin, Conserva- tion Law, Bounds. Queueing networks: definitions; job flow balance; product form solutions — local balance, M/M/m; computational algorithms for performance measures; asymptotic behavior and bounds; approxima- tions techniques — diffusion — iterative tech- niques; applications. Letter grading.

213. Distributed Embedded Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 116. Designed for graduate students. Important class of distributed networks are those that support monitoring and manipulation of physical spaces through wireless sensor networks. Study of distributed protocols needed to realize these sys- tems. Topics include design implications of energy and otherwise resource-constrained nodes, network self-configuration and adaptation, localization and time synchronization, programming paradigm, appli- cations, and usage issues such as human interfaces, safety, and security. Letter grading.

214. Data Transmission in Computer Communica- tions. (4) Lecture, four hours; outside study, eight hours. Requisite: course 112. Limited to graduate computer science students. Discussion of data streams, formats, rates, transmissions; digital data transmis- sions via analog signaling in computer communica- tion; media characteristics, systems methodologies, performance analysis; multi- and hybrid networks; physical inter- faces in computer communication links; national/int- ernational standards; tests and measurements. Let- ter grading.

215. Computer Communications and Networks. (4) Lecture, four hours; outside study, eight hours. Requisite: course 112. Resource sharing; computer traffic characteristics; multiplexing; network struc- ture; packet switching and other switching tech- niques; ARAPNET and other computer network ex- amples; network delay and analysis; network design and optimization; network protocols; routing and flow control; satellite and ground radio packet switching; local networks; commercial network services and archi- tectures. Optional topics include extended error control techniques; modern; SDLC, HDLC, X.25, etc.; protocol measurement; integrated networks; communication processors. Letter grading.

216. Distributed Multiaccess Control in Networks. (4) Lecture, four hours; outside study, eight hours. Requirements: completion of major field examination in the field of distributed control and access in computer net- works, including terrestrial distributed computer net- works; satellite packet switching; ground radio packet switching; local network architecture and control. Let- ter grading.

217. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Design- ed for graduate students. Overview of Internet development history and fundamental principles un- derlying TCP/IP protocol design. Discussion of cur- rent research topics, including multicast routing proto- cols, multicast control (e.g., Internet time-transport protocol, RTP, and SRM); support for inte- grated services, World Wide Web, multimedia applica- tions on Internet. Fundamental issues in network pro- tocol design and implementations. Letter grading.


219. Current Topics in Computer System Model- ing Analysis. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in an area of computer systems research in which the instructor has developed special proficiency as a con- sequence of research interests. Students report on selected topics. May be repeated for credit with con- sent of instructor. Letter grading.

222. Control and Coordination in Economics. (4) (Same as Economics M222A.) Lecture, three hours. Recommended preparation: appropriate math- ematics course. Designed for graduate economics and engineering students. Stabilization policies, short- and long-run dynamics and stability analysis; decentralization, coordination in teams; certainty equiva- lence and second best; constrained and learning models. Bayesian approach to price and out- put rate adjustment. S/U or letter grading.

230A. Models of Information and Computation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131, 161, Paradigms, models, frameworks, and problem solving; UML and meta- modeling; basic information and computation models; axiomatic systems; domain theory; least fixed point theory; denotational models; primitive recursion, sen- tences, axioms and rules, normal forms, derivation and proof, models and semantics, propositional logic, first-order logic, logic programming. Functional mod- els: expressions, evaluation, environments, combiners; lambda calculus; functional programming. Program models: program derivation and verification using Hoare logic, object models, standard templates, de- sign patterns, frameworks. Letter grading.

233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Mutual exclusion and resource allocation in distributed systems; primitives for parallel computa- tion: specification of parallelism, interprocess commu- nication and synchronization, atomic actions, binary and multiway rendezvous and synchronization; and asyn- chronous systems: CSP, ADA, LINDA, MAUS, UC, and others; introduction to parallel program verifica- tion. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requi- site: course 233A. Formal techniques for verification of concurrent programs. Topics include safety, live- ness, program and state assertion-based techniques, weakest precondition semantics, Hoare logic, tempo- ral logic, UNITY, and axiomatic semantics for selected parallel languages. Letter grading.

239. Current Topics in Computer Science: Pro- gramming Languages and Systems. (2 to 12) Lect- ure, four hours; outside study, eight hours. Review of current literature in an area of computer science pro- gramming languages and systems in which instructor has developed special proficiency as a consequence of research interests. May be repeated for credit with topic change. Letter grading.

240A. Databases and Knowledge Bases. (4) Lec-ture, four hours; outside study, eight hours. Requisites: courses 143, 240A. Knowledge representation and reasoning, and logic-based declarative querying/program- ming are salient features of this technology. Other topics include object-relational systems and data min- ing techniques. Letter grading.

240B. Advanced Data and Knowledge Bases. (4) (Formerly numbered 249.) Lecture, four hours; out- side study, eight hours. Requisites: courses 143, 240A. Logical models for data and knowledge repre- sentations. Rule-based languages and nonmonotonic reasoning. Temporal queries, spatial queries, and un- certainty in deductive databases and object relational databases (ORDBs). Abstract data types and user- defined column functions in ORDBs. Data mining are algorithms. Semistructured information. Letter grading.

241A. Object-Oriented and Semantic Database Systems. (4) Lecture, three and one-half hours; dis- cussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisites: courses 111, 131. Mutual exclusion and resource allocation in distributed systems; primitives for parallel computa- tion: specification of parallelism, interprocess commu- nication and synchronization, atomic actions, binary and multiway rendezvous and synchronization; and asyn- chronous systems: CSP, ADA, LINDA, MAUS, UC, and others; introduction to parallel program verifica- tion. Letter grading.

241B. Pictorial and Multimedia Database Sys- tems. (4) Lecture, three and one-half hours; dis- cussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisites: courses 143, 241A. Multimedia data: alphanumeric, long text, images/pictures, audio, and voice. Multimedia information systems re- quirements. Data models and accessing. Querying, visualization, and storage. Multimedia database de- sign and organization, logical and physical. Search by content and indexing methods. Internet multimedia streaming. Data heterogeneity and distribution. Other topics at discretion of instructor. Letter grading.

244A. Distributed Database Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215 and/or 241A. File allocation, intelligent directory design, transaction management, deadlock, distributed objects, weak and strong consistency, commit proto- cols, semantic query answering, multidatabase sys- tems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.
245A. Distributed Processing Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 215 and/or 251A. Task partitioning and allocation, interprocess communications, task response time model, process scheduling, message passing protocols, replicated file systems, interface, cache memory, actor model, fine grain multicomputers, micro-kernels, error recovery strategy, performance monitoring and measurement, scalability and maintainability, prototypes and commercial products. Letter grading.


258A. LSI in Computer System Design. (4) (Same as Electrical Engineering M216A.) Lecture, four hours; outside study, eight hours. Limits to good computer design; computer science and electrical engineering students. LSI/IVLSI design and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on a chip. Letter grading.

258B-M258C. LSI in Computer System Design. (4-4) (Same as Electrical Engineering M216B-M216C.) Lecture, four hours; laboratory, four hours. Requisite: course 258A. LSI/IVLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. In Progress and S/U or letter grading.

258E. Foundations of VLSI CAD Algorithms. (4) Lecture, four hours; outside study, eight hours. Preparation: one course in analysis and design of algorithms. Basic theory of combinatorial optimization for VLSI physical layout, including mathematical programming, network flows, matching, greedy and heuristic algorithms, and stochastic methods. Emphasis on practical application to computer-aided physical design of VLSI circuits at high-level phases of layout: partitioning, placement, graph folding, floorplanning, and global routing. Letter grading.


258G. Logic Synthesis of Digital Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M51A, 180. Detailed study of various problems in logic-level synthesis of VLSI digital systems, including two-level Boolean network optimization; multilevel Boolean network optimization; technology mapping for standard cell designs and field-programmable gate array designs; retiming for sequential circuits; and applications of binary decision diagrams (BDDS). Letter grading.

258H. Analysis and Design of High-Speed VLSI Interconnects. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M258A, 258F. Detailed study of various problems in analysis and design of high-speed VLSI interconnects at both integrated circuit (IC) and package levels, including interconnect capacitance and resistance, loss, noise, and signal transmission line, cross-talk and power distribution noise, delay models and power dissipation models, interconnect topology and geometry optimization, and clocking for high-speed systems. Letter grading.

259. Current Topics in Computer Science: System Design/Architecture. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in an area of computer science system design in which instructor has developed special proficiency as a consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

261A. Problem Solving and Search. (4) Lecture, four hours; outside study, eight hours. Requisite: course 23. Examination in depth of that part of artificial intelligence concerned with problem-solving behavior, including problem spaces, brute-force search, heuristic search, two-player game searches, planning, subgoaling, GPS, macro-operators, and abstraction. Emphasis on mathematical rigor and complexity analyses of search algorithms. Letter grading.

262A. Reasoning with Partial Beliefs. (4) Lecture, four hours; outside study, eight hours. Requisite: course 112 or Electrical Engineering 131A. Review of several formalisms for representing and managing uncertainty in reasoning systems; presentation of comprehensive description of Bayesian inference using belief networks representation. Letter grading.


262C. Statistical Inference. (4) (Formerly numbered 262SC.) (Same as Statistics M241.) Lecture, four hours; outside study, eight hours. Requisite: course 112 or equivalent probability theory course. Techniques of using computers to interpret, summarize, and form theories of empirical observations. Mathematical analysis of trade-offs between computational complexity, storage requirements, and precision of computerized models. Letter grading.

262Z. Current Topics in Cognitive Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 262A. Additional requisites for each offering announced in advance by department. Theory and implementation of systems which emulate or support human reasoning. Current literature and individual studies in artificial intelligence, knowledge-based systems, decision support systems, computational psychology, and heuristic programming theory. May be repeated for credit with topic change. Letter grading.

263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presentation of process models for variety of tasks, including question answering, paraphrasing, machine translation, word-sense disambiguation, narrative and editorial comprehension. Examination of both symbolic and statistical approaches to language processing and acquisition. Letter grading.

263B. Connectionist Natural Language Processing. (4) Lecture, four hours; outside study, eight hours. Requisite: course 161 or 163 or 263A. Examination of connectionist/ANN architectures designed for natural language processing, issues include localist vs. distributed representations, variable binding, instantiation and inference via spreading activation, acquisition of language and world knowledge (for instance, back propagation, PDP, performance learning, and competitive learning in self-organizing feature maps), and grounding of symbols in sensory/motor experience. Letter grading.
263C. Animats-Based Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131. High-level programming and animat-like software agents embedded in simulated dynamic environments. Emphasis on modeling: goal-oriented behavior via neurocontrollers, adaptation via reinforcement learning, evolutionary programming. Animal-based tasks include foraging, mate finding, predation, navigation, 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 up-to-date automated theorem proving. Topics include syntax and semantics of formal logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on expressiveness, compactness, and computational tractability; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability and availability analyses. Letter grading.


267A. Neural Models. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Review of major neurophysiological milestones in understanding brain architecture and processes. Focus on brain theories that are important for modern computer science and, in particular, on models of sensory perception, sensory-motor coordination, and cerebellar and cerebral structure and function. Students required to prepare a paper analyzing research in one area of interest. Letter grading.

267B. Artificial Neural Systems and Connectionist Computing. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Analysis of major connectionist computing paradigms and underlying models of biological and physical processes. Examination of past and current implementation of artificial neural networks along with their applications as used in knowledge processing, general multisensor pattern recognition including speed and vision, and adaptive robot control. Students required to prepare a paper analyzing research in one area of interest. Letter grading.


268S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, six hours. Designed for students undertaking thesis research. Discussion of advanced topics and current research in computational neuroscience. Neural networks and connectionism as a paradigm for parallel and concurrent computation in application to problems of perception, vision, multimodal sensory integration, and robotics. May be repeated for credit. S/U grading.

269. Seminar: Current Topics in Artificial Intelligence. (2 to 4) Seminar, to be arranged. Review of current literature and research practicum in an area of artificial intelligence in which instructor has developed special expertise. Emphasis on current research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.


271C. Seminar: Advanced Simulation Methods. (2) Seminar, two hours; outside study, six hours. Required preparation: course 270A. In-depth study in discrete event simulation and modeling techniques, including building valid and credible simulation models, output analysis of systems, comparisons of alternative simulation techniques. Variance reduction techniques, model validation, identification, authentication, and secret sharing. Emphasis on regular encryption/decryption, control, steganography, secure communications, system modeling, and simulation. Letter grading.


272B. Structured Computer Vision. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Methods for computer processing of image data. Systems, concepts, and algorithms for image analysis, radiologic and robotic applications. Letter grading.

276C. Speech and Language Communication in Artificial Intelligence. (4) Lecture, four hours; outside study, eight hours. Requisite: course 276A or 276B. Topics in human-computer communication: interaction with pictorial information systems, sound and symbol generation by humans and machines, semantics of data, systems for speech recognition and understanding. Use of speech and text for computer input and output in applications. Letter grading.

279. Current Topics in Computer Science: Methodology. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in an area of computational science and methodology in which instructor has developed special proficiency as a consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

280A-280ZZ. Algorithms. (4 each) Lecture, four hours; outside study, eight 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 sections: Principles of Design and Analysis (280A); Distributed Algorithms (280D); Graphs and Networks (280G). May be repeated for credit with consent of instructor and with topic change. Letter grading.

281A. Computability and Complexity. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181 or comparable background. Concepts fundamental to study of discrete information systems and the theory of computation, with emphasis on regular sets of strings, Turing-recognizable (recursively enumerable) sets, closure properties, machine characteriza- tions, nondeterminism, decidability, unsolvable problems, "hard" problems, PTIME/NSP TIME. Letter grading.

281D. Discrete State Systems. (4) Lecture, four hours; outside study, eight hours. Recommended requisites: course 181. Finite-state machines, transducers, and their generalizations; regular expressions, transduction expressions, realizability; decomposition, synthesis, and design considerations; topics in state and system identification and fault diagnosis, linear machines, probabilistic machines, applications in coding, communication, computing, system model- ing, and simulation. Letter grading.

282A. Cryptography. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Basics of cryptography: symmetric and asymmetric cryptosys- tems; DES, RSA, EIGamal, elliptic curves. Schemes for signature, key distribution and key agreement, identification, authentication, and secret sharing. Advanced topics may include pseudo-random number generation, zero-knowledge proofs, and oblivious trac- tic. Letter grading.

284A-284Z. 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, gram- mars, machines, operators; pushdown automata, context-free languages and their generalizations, parsing; multidimensional grammars, developmental 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 with topic change. Letter grading.

287A. Theory of Program Structure. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181. Models of computer programs and their syntax and semantics; emphasis on programs and re- corded programs; evaluation; correctness, efficiency, and translatability of programs; expressive power of program constructs and data structures; select- ed current topics. Letter grading.

288S. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requ- isites: courses 280A, 281A. Intended for students undertaking thesis research. Discussion of advanced topics and current research in such areas as algorithmic complexity, complexity of computation with parallel and concur- rent computation, and formal language and automata theory. May be repeated for credit. S/U grading.
289A-289ZZ. Current Topics in Computer Theory. (2 to 12 each) Lecture, four hours; outside study, eight hours. Review of current literature in an area of computer theory in which instructor has developed special proficiency as a consequence of research interests. Students report on selected topics. Letter grading.

289OA. Online Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Introduction to decision making under uncertainty and competitive analysis. Review of current research in online algorithms for problems arising in many areas, such as data and memory management, searching and navigating in unknown terrains, and server systems. Letter grading.

289RA. Randomized Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Introduction to decision making under uncertainty and competitive analysis. Review of current research in online algorithms for problems arising in many areas, such as data and memory management, searching and navigating in unknown terrains, and server systems. Letter grading.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Biomedical Engineering M296B and Medicine M270CE.) Lecture, four hours; outside study, eight hours. Requisite: course M296A or Biomedical Mathematics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experimental design via applications in physiology and pharmacology. Letter grading.


M296D. Introduction to Computational Cardiology. (4) (Same as Biomedical Engineering M296D.) Lecture, four hours; outside study, eight hours. Requisite: course M196B. Introduction to mathematical modeling and computer simulation of cardiac electrophysiological processes. Ionic models of action potential (AP). Theory of AP propagation in 1D and 2D cardiac tissue. Simulation on sequential and parallel supercomputers, choice of numerical algorithms, to optimize accuracy and to provide computational stability. Letter grading.

CM296L. Biomedical Systems/Biocybernetics Research Laboratory. (2 to 4) (Formerly numbered C296L.) (Same as Biomedical Engineering CM296L.) Lecture, two hours; laboratory, two hours. Requisite: course M196B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM196L. Letter grading.

296. Research Seminar: Computer Science. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate computer science students. Discussion of advanced topics and current research in algorithmic processes that describe and transform information: theory, analysis, design, efficiency, implementation, and application. May be repeated for credit. S/U grading.

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

495B. Teaching with Technology. (2) Seminar, two hours; outside study, six hours. Limited to graduate Computer Science Department students. Seminar on communication of computer science materials in classroom: preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

497D-497E. Field Projects in Computer Science. (4-4) Fieldwork, to be arranged. Students are divided into teams led by instructor; each team is assigned an external company or organization which they investigate as a candidate for possible computerization, submitting a team report of their findings and recommendations. In Progress and S/U or letter grading.

596. Directed Individual or Tutorial Studies. (2 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.


597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate computer science students. Reading and preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science students. Preparation for oral qualifying examination, including preliminary review on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate computer science students. Supervised independent research for M.S. candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of Ph.D. 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

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Christopher J. Lee, Ph.D.
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Stefano Soatto, Ph.D.
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Benjamin Wu, Ph.D.

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Michael G. Dyer, Ph.D. (Computer Science)
C. Fred Fox, Ph.D. (Microbiology, Immunology, and Molecular Genetics)
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Jason Spaey, Ph.D. (Mechanical and Aerospace Engineering)

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Stefano Soatto, Ph.D. (Computer Science)
Richard K. Vance, Ph.D. (Organismic Biology, Ecology, and Evolution)

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Jack W. Judy, Ph.D. (Electrical Engineering)
Christopher J. Lee, Ph.D. (Chemistry and Biochemistry)
Benjamin Wu, Ph.D. (Materials Science and Engineering)

Adjunct Associate Professors
Vivek Dixit, M.D. (Medicine)
Valery I. Novov, M.D. (Neurosurgery)

Scope and Objectives
The major in Cybernetics is designed primarily for highly motivated undergraduates inter-
ested in interdisciplinary studies in life sciences, behavioral sciences, and engineering and computer sciences. Preparation for the major consists of a broad foundation in basic sciences — chemistry, biology, physics, and mathematics, plus an introduction to psychology and computing. The major itself provides foundations in mathematical modeling, information processing, and control and system analysis, with an emphasis on quantitative ideas and methodologies. Mathematical and other analytical skills are essential in the major.

Cybernetics majors have several options for in-depth studies: a coherent integration of courses selected from the broader concentration areas of life sciences, behavioral sciences, or engineering and applied mathematical sciences, or an integration of courses from these areas, or from one of the designated concentrations in bioinformatics, biomedical systems, or computer studies. The major is appropriate preparation for employment or for graduate studies in any of these areas, with emphasis on interdisciplinary activities. It is also appropriate preparation for professional school studies in medicine, public health, management, dentistry, and engineering.

Undergraduate Study

Cybernetics B.S.

Precybernetics Major

Students may apply for the Precybernetics major via petition if they are sophomores and have taken at least three of the premajor mathematics courses with a 2.7 grade-point average or better and three other premajor courses. Together, all premajor courses, including mathematics, must be completed with at least a 3.0 GPA and a minimum grade of C in all courses.

Preparation for the Major

Required: A minimum of 82 to 83 units (depending on the physics sequence selected), including Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL; Life Sciences 1, 2, 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 115A; Physics 1A, 1B, and 1C (or Electrical Engineering 1); or 1AH, 1BH, and 1CH; Program in Computing 10A; Psychology 10. For the bioinformatics concentration, Program in Computing 10B, 10C, and 60 are also required; for the computer studies concentration, Program in Computing 10B, 10C, 30, and 60 also are required.

Transfer Students

To be admitted as Cybernetics majors, transfer students 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, one psychology course, and one programming course using C++.

Transfer students 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.

The Major

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, 3.0 GPA overall, and a minimum grade of C in all preparation for the major courses).

The major consists of a methodology core of six units (23 units), a concentration of six to seven upper division courses (24 or 28 units minimum), and a breadth requirement of three courses (12 units). Each course in the major must be passed with a grade of C or better.

Methodology Core

Required: Four subject areas as follows:
1. One overview course: Cybernetics M196A
2. Two courses in probability and statistics from one of the following groups: (a) Statistics 100A and 100B or (b) Mathematics 170A and Statistics 100B or (e) Electrical Engineering 131A and Statistics 100B
3. Two courses in signals, systems, and control systems: (a) Electrical Engineering 102 and (b) Electrical Engineering 141 or Mechanical and Aerospace Engineering 171A
4. One course in biomodeling and computer simulation: Cybernetics M196B

Concentrations

Required: Six to seven upper division courses (24 or 28 units minimum), depending on the concentration selected. An approved list of courses for each concentration is available in the program office and at http://www.cs.ucla.edu/~cyber/.

For a concentration in the broader areas of life sciences, behavioral sciences, or engineering and applied mathematical sciences, or an integration of courses from these areas, seven courses must be selected from the approved lists in consultation with a faculty mentor and approved by the program chair.

For the bioinformatics concentration, six courses must be selected from the bioinformatics approved list in consultation with a faculty mentor and approved by the program chair. Note: Program in Computing 10B, 10C, and 60 also are required under Preparation for the Major.

For the biomedical systems concentration, seven courses must be selected from the biomedical systems approved list in consultation with a faculty mentor and approved by the program chair. By petition, up to two relevant courses from another UCLA department may be included among the seven (e.g., upper division requisites to biomedical engineering courses).

For the computer studies concentration, six courses must be selected from the computer studies approved list in consultation with a faculty mentor and approved by the program chair. Note: Program in Computing 10B, 10C, 30, and 60 also are required under Preparation for the Major.

Breadth Requirements

Required: Three courses (12 units minimum) as follows:
1. For a concentration in the broader areas, one course from the life sciences list, one course from the behavioral sciences list, and one course from the engineering and mathematical sciences list selected in consultation with a faculty mentor and approved by the program chair.
2. For the bioinformatics concentration, three courses from the bioinformatics approved list, including one from each of the subgroupings of methodology, computer science, and molecular and cellular biochemistry, selected in consultation with a faculty mentor and approved by the program chair.
3. For the biomedical systems concentration, one course from the life sciences list, one course from the behavioral sciences list, and one course from the engineering and mathematical sciences list selected in consultation with a faculty mentor and approved by the program chair.

Students may petition to apply up to 4 units of special studies (199) courses in satisfaction of one of the three required breadth courses in any concentration. Special studies courses may not be applied toward any of the concentration requirements.

Honors Program

Junior and senior majors who have completed all preparation for the major courses and have an overall grade-point average of 3.0 or better and a 3.5 or better in required major courses may apply for admission to the honors program, in which the honors-designated section of Cybernetics M196B is required. Students pursuing highest honors must, in addition, complete a senior thesis (Cybernetics 195H) based on an approved research topic. Those who successfully complete the program (3.0 GPA or better overall, 3.5 or better in major coursework, and a grade of B or better in the honors section of Cybernetics M196B or other contracted honors coursework) are awarded a degree with honors. At the discretion of the fac-
Cybernetics

Upper Division Courses


M196A. Introduction to Cybernetics, Biomodeling, and Biomedical Computing. (2) (Same as Biomedical Engineering M196A and Computer Science M196A.) Lecture, two hours. Requisite: Mathematics 31A, 31B, Program in Computing 10A. Strongly recommended for students with potential interest in biomedical engineering, computer science, or computer science as a major. Introduction and survey of topics in cybernetics, biomodeling, biocomputing, and related bioengineering disciplines. Lectures presented by faculty currently performing research in one of the areas; some sessions include laboratory tours. P/NP grading.

M196B. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Biomedical Engineering M196B, Computer Science M196B, and Medicine M196B.) Lecture, four hours; discussion, one hour; laboratory, two hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to dynamic system modeling, compartmental modeling, and computer simulation methods for studying biomedical systems. Basics of numerical simulation algorithms, translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

M196L. Biomedical Systems/Biocybernetics Research Laboratory. (2 to 4) (Same as Biomedical Engineering CM196L and Computer Science CM196L.) Lecture, two hours; laboratory, two hours. Requisite: Undergraduate Biomedical Science M196B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experiment design. Radiocative isolopes and kinetic studies. Experimental animals, controls. Letter grading.

Scope and Objectives

The UCLA School of Dentistry offers three lower division and two upper division courses for preclinical students, plus several graduate courses. Dentistry 199 and 199H are individual special studies courses for UCLA undergraduates with definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at (310) 825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty.

Dentistry

Lower Division Courses

88. Lower Division Seminar: Special Topics in Dentistry. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in dentistry approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

98B. Phobias and Experience of Anxiety: Perspectives on Psychology of Fear. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement. Phobias represent how people are distressed and disabled by intense fear. Examination of structure and process of irrational fears of animals, people, and places. Discussion of courage and fear reduction strategies. Letter grading.

98C. Psychology of Personality Types. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement. “What personality is, everybody knows, but nobody can tell.” How personality impacts professional relationships and everyday life. Classic and contemporary typologies reveal how personality styles shape perception, behavior, and interaction with others. Letter grading.

Upper Division Courses

199. Individual Special Studies. (2 to 8) Studies in dentistry and related subject areas appropriate for the training of particular students, with required reading assignments or laboratory work leading to a final oral or written examination. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Studies in dentistry and related subject areas appropriate for the 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). P/NP or letter grading.

Graduate Courses


M422. Health Policy Issues for Dental Professionals. (2) (Same as Health Sciences M448B.) Lecture, two hours. Requisite: Biostatistics 100A, Epidemiology 100, Health Services 100. Current public health policy issues in dental health, including cost, financing, role of government, and quality assurance. S/U grading.

M433A. Case Studies in Dental Practice. (2) (Same as Health Sciences M448D.) Lecture, two hours. Provides students with practice methodology for evaluation of dental care settings. Didactic and field experience, providing foundation for evaluation of programs. S/U grading.

441C. Introduction to Health Care. (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 health care services in America, with comparisons to dental care provisions in other countries. S/U grading.

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Eriki Huhatto, Licensiate in Philosophy

Adjunct Professors

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Sara Diamond, B.A.
Joachim Sauter, M.A.

Adjunct Associate Professor

Cameron McNall, M.Arch.

Adjunct Assistant Professors

Jennifer Steinkamp, M.F.A.
Gail Swanlund, M.F.A.

Scope and Objectives

The Department of Design | Media Arts offers the Bachelor of Arts and Master of Fine Arts degrees, which focus on visual communication design with emphasis on digital media. These uniquely challenging programs invite students to balance aesthetic sensibility with logical reasoning, formal theories with practical applica-
tion, and contemporary thought with historical perspective.

The undergraduate program begins with the study of basic design elements and processes: form, color, drawing, letterforms and typogra-
phy, visual technologies, and the manipulation of photography and video through image-cap-
ture technologies. 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 envi-
ronments.

Through a balance of courses in theory, criti-
cism, and practice, students develop an under-
standing of design principles. Most courses are
taught as studios of no more than 20 students,
which encourages individual growth and fos-
ters a sense of community within the depart-
ment.

The two-year Master of Fine Arts (M.F.A.) de-
gree fosters mature, professional-quality work
utilizing the most current technologies in the
field of media design. The exploration of visual
communication in a digital format leads to new
concepts and understanding that address the
role of design in the rapidly evolving area of
digital media. The program focuses on devel-
oping an individual thesis project that incorpo-
rates in-depth research and theoretical explo-
rations of a topic, culminating in a final exhibit-
ion of work. Students have the opportunity to par-
ticipate in ongoing research projects that may
form the basis of their thesis work. Sample to-
pics include design of the interface and design
of virtual environments and information spaces
that integrate visual elements with sound,
movement, time, and space.

Facilities and equipment in the department en-
able students to create visual designs in two,
three, and even four dimensions. They expand
opportunities for students to develop interac-
tive media applications in a networked environ-
ment and advanced computer graphics involving
virtual reality and three-dimensional form.

The department’s equipment combines high-
end PC and Macintosh computers with facili-
ties for sound and nonlinear video editing.

The Department of Design | Media Arts re-
serves the right to hold for exhibition purposes
examples of any work done in classes and to
retain for the permanent collection of its galler-
ies such examples as may be selected.

Undergraduate Study
Design | Media Arts B.A.

Preparation for the Major

Required: Design | Media Arts 10, 21, 22, 23,
24, 25, 26, and one course from Art 31A or
31B or Art History 50 through 57.

The Major

Required: Ten upper division courses, includ-
ing three courses from comparative and theo-
retical studies (Design | Media Arts 101
through C106) and seven courses from area
studies (courses 153A through 161C). Twelve
additional upper division units must be se-
lected from the courses listed above and/or
from courses C121 through C143 and 182
through 199. In consultation with and with
approval of the faculty adviser, other nonmajor
courses may be applied toward major credit.

It is recommended that students have each
term’s program approved by the departmental
adviser.

Note: Consult the Schedule of Classes for
courses restricted 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, http://www.gdn.ucla.edu. 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 Design | Media Arts offers
Master of Arts (M.A.) and Master of Fine Arts
(M.F.A.) degrees in Design | Media Arts.

Design | Media Arts

Lower Division Courses

10. Design Culture: Introduction. (5) Lecture,
three hours; outside study, 12 hours. Open to nonmajors.
Understanding the design process, with emphasis on
development of a visual language; study of historic,
scientific, technological, economic, and cultural factors
influencing design in our physical environment. P/NP
or letter grading.

21. Color. (4) Studio, six hours. Introduction to theo-
ries of color to understand interdependence and inter-
action of color and form, color and quantity, color and
placement, and the after-image. P/NP or letter grad-
ing.

22. Form. (4) Studio, six hours. Interrelation of two-
dimensional surfaces and three-dimensional forms
with traditional and experimental materials as a foun-
dation for creativity; origination and solution of prob-
lems. P/NP or letter grading.

23. Drawing. (4) Studio, six hours. Translation of per-
ception through delineation, drawing, and other de-
scriptive media. Emphasis on development of stu-
dents’ motor control by means of freedom and me-
chanical drawing and by development of analytical and
objective observation from life and three-dimen-
sional objects. P/NP or letter grading.

24. Visual Technologies. (4) Lecture/studio, four
hours; laboratory, two hours. Introduction and integra-
tion of traditional design tools, the camera, and digital
transitories as a tool for visual thinking and fund-
damentals of design, P/NP or letter grading.

25. Letterforms and Typography. (4) Lecture/stu-
dio, four hours; laboratory, two hours. Requisite:
course 24. Introduction to typography as basic ele-
ment of information design and as it applies to various
forms of media; historical basis for development of
letterform design and its architecture. P/NP or letter
grading.

26. Image Capture. (4) Lecture/studio, four hours;
laboratory, two hours. Requisite: course 24. Introduc-
tion to image capture technologies through under-
standing of photography and video. Studio and field
exercises include equipment operation, lighting tech-
niques, and digital image manipulation. P/NP or letter
grading.

35B. Introduction to Tools and Processes. (4) Le-
ture, two hours; studio, four hours. Introductory de-
sign shop course to develop necessary skills with tra-
ditional tools and power equipment, including funda-
amentals of joining, fabrication, and finishing both
natural and industrial materials, and their appropriate
fabrication in design prototypes. Letter grading.

Upper Division Courses

101. Media Arts: Introduction. (5) Lecture, three
hours; outside study, 12 hours. Survey of media arts,
their history, aesthetics, and cultural roles from the
late-19th century to the present. Investigation of me-
dia arts within broad historical and cultural frame-
work. Discussion of parallels and links with other cul-
tural forms, including history of technology and vari-
ses. Designed for juniors/seniors. Introduction to meth-
ology of design in context of visual communication,
with focus on integrating themes and representative
case studies that encourage independent student in-
vestigation. Letter grading.

104. Design and Society: Society and Design. (5)
Lecture, three hours; outside study, 12 hours. Prepa-
ation: completion of preparation for the major cours-
es. Open to nonmajors with consent of instructor. His-
torical and thematic examination of how design af-
ficts society from classical antiquity to the 20th cen-
tury in order to understand historically how each
type and application of design related to sociological
context in which it existed. Consideration of how vari-
ous design practices and techniques related to each
other. P/NP or letter grading.

C106. Media Studies. (5) Lecture, three hours;
outside study, 12 hours. Preparation: completion of prep-
aration for the major courses. Overview and contextu-
al understanding of influences and origins of media,
paradigms, and technologies of past 150 years through reading and discussion of theoreti-
cal and historical works. Concurrently scheduled with
course C206. Letter grading.

C121. Fundamentals of Architectonics: Propor-
tion. (4) Lecture, three hours; outside study, nine
hours. Preparation: completion of preparation for the
major courses. Inquiry concerning architecture of
spatial configurations from both a historical position
and a mathematical viewpoint. Concurrently sched-
uled with course CM221. P/NP or letter grading.

C122. Fundamentals of Architectonics: Symme-
try. (4) Lecture, three hours; outside study, nine
hours. Preparation: completion of preparation for the
major courses. Inquiry concerning architecture of
spatial configurations from both a historical position
and a mathematical viewpoint. Concurrently sched-
uled with course CM222. P/NP or letter grading.

C123. Fundamentals of Architectonics: Compati-
ty and Order. (4) Lecture, three hours; outside study,
nine hours. Preparation: completion of prepara-
tion for the major courses. Inquiry concerning archi-
tecture of spatial configurations from both a historical
position and a mathematical viewpoint. Concurrently sched-
uled with course CM223. P/NP or letter grad-
ing.
C141. Programming Computer Applications in Architecture and Urban Design. (4) Lecture, three hours; outside study, nine hours. Introduction to computer science in logic of computing through experiments in computer graphics programming. Investigation of both procedural and object-oriented approaches to programming. Concurrently scheduled with course CM241. P/NP or letter grading.

C142. Introduction to Geometric Modeling. (4) Lecture, three hours; outside study, nine hours. Req:- uisite: course C141. Survey of geometric and threedimensional modeling, with emphasis on implementation of three-dimensional solids constructions and editing operations. Basic representations and operations on shapes and solids. Concurrently scheduled with course CM242. P/NP or letter grading.

C143. User Interaction Techniques in Design. (4) Lecture, three hours; outside study, nine hours. Req:- uisite: course C141 or knowledge of C++ programming language. Programming techniques for implementing modern computer-user interfaces, specifically looking at issues relevant to building software tools for computer-aided problem solving in architecture and design. Concurrently scheduled with course CM243. P/NP or letter grading.

153A. Design for Video. (5) Formerly numbered 153.) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Use of video technology (video cameras, computers, video displays, video editing, high-end editing systems) to integrate image, sound, time, and motion. Emphasis on expression, presentation, continuity, and sequential patterns for video communication. P/NP or letter grading.

153B. Advanced Design for Video. (5) Studio, six hours; outside study, nine hours. Preparation: course 153A. Use of video technology to create digital short film from design perspective. Emphasis on design theories, producing design, lighting, staging, camera movement, and producing, editing, sound, and marketing. P/NP or letter grading.

154A. Design for Print Media. (5) (Formerly numbered 154.) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: course 103 or CM106. Introduction to procedures to create, plan, and produce visual communication design. Emphasis on acquiring and working with visual vocabulary to gain mastery of conceptual and creative procedures by learning technical skills to translate ideas and concepts into visual design and graphic imagery. P/NP or letter grading.

154B. Integrative Typography. (5) Studio, six hours; outside study, nine hours. Preparation: course 154A. Investigation of principles of sequence, narrative, transition, and interaction through graphic language of print design, with emphasis on research, content development, and articulation of methodology for visualization. P/NP or letter grading.

155. Dynamic Typography. (5) Studio, six hours; outside study, nine hours. Preparation: preparation of pre-paration for the major courses. Requisites: courses 103 or CM106, 154A. Integration of print and digital information technology, with continued emphasis on fully integrating visual vocabulary with mastery of conceptual and creative procedures. P/NP or letter grading.

156A. Three-Dimensional: Design of Virtual Form. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: courses 103 or CM106. Through lectures, discussions, and studio work, introduction to basic elements of three-dimensional computer visualization, including modeling, image mapping, lighting, project construction, and techniques for P/NP or letter grading.

156B. Three-Dimensional: Time and Motion in Virtual Space. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: courses 103 or CM106, 156A. Experimental three-dimensional form to include motion, time, and rhythm. Storyboard development, modeling of articulated characters and objects, virtual camera movement, and motion capture. P/NP or letter grading.

157A. Design for Interactive Media. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: courses 103 or C106, 154. Emphasis on graphic and information design for interactive media applications. Introduction to multimedia and hypermedia. Focus on learning role of conceptual designer as visual communicator and design manager. P/NP or letter grading.

157B. Advanced Interactive Media. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: courses 103 or C106, 154, 157A. Extension of study of interactive media design. Focus on development of advanced conceptual skills in interface design and nonlinear narrative utilizing programming techniques such as tables and objects. Builds on skills and concepts acquired in course 157A. P/NP or letter grading.

158. Design for Environmental Communication. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: courses 103, C106, three courses from 153 through 158. Limited to seniors. Individual studies and organized, conceptualized by senior students. Proposal for research and development of design and production of a body of work. May be repeated once for credit. Letter grading.

160. Special Topics in Area Studies. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisites: course 103 or C106. Selected topics in design and media arts explored through variety of approaches which may include projects, readings, discussion, research papers, and oral presentations. Topics to be announced in advance. May be repeated for a maximum of 15 units. Only 10 units may be applied toward area studies. Letter grading.

161A. Introduction to Creative Use of Internet. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Requisite: course 103 or CM106. Selected topics in design and media arts explored through variety of approaches which may include projects, readings, discussion, research papers, and oral presentations. Topics to be announced in advance. May be repeated for a maximum of 15 units. Only 10 units may be applied toward area studies. Letter grading.


161C. Designing Networked Public Spaces. (5) Studio, six hours; outside study, nine hours. Requisites: courses 161A, 161B. Advanced-level course exploring creative production through online environments and telepresence. Focus on design of multimedia collaborative spaces. Builds on skills and concepts acquired in course 161B. Letter grading.

182. Design Processes: World Cultures. (5) Studio, six hours; outside study, nine hours. Introduction to early development of two- and three-dimensional forms, utilizing pliable materials but not to exclude other media. P/NP or letter grading.

183. Material Processes: Fiber Structure. (5) Studio, six hours; outside study, nine hours. Use of basic hand methods of constructing development of two- and three-dimensional forms, utilizing pliable materials but not to exclude other media. P/NP or letter grading.

184. Material Processes: Surface Pattern. (5) Studio, six hours; outside study, nine hours. Use of hand processes and a variety of materials to develop simple to complex surface patterns and systems as a means for creative expression. P/NP or letter grading.

189. Topics in Design. (2 to 8) Lecture, to be arranged. Examination by faculty members of specific problems relevant to design and performance. Topics announced in advance. May be repeated for a maximum of 16 units. Letter grading.

193. Proseminar: Design. (5) Seminar, six hours; outside study, nine hours. Open to senior and advanced students. Examination in seminar format of specific problems relevant to design theory and performance. Topics announced in advance. Letter grading.

197. Honors Course. (4) Tutorial, to be arranged. Preparation: 3.0 grade-point average overall, 3.5 grade-point average in major. Limited to juniors/ seniors. Individual studies for majors. May be repeated once for credit. P/NP or letter grading.

199. Special Studies in Design. (2 to 8) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to seniors. Individual studies for majors. May be taken for a maximum of 8 units. P/NP or letter grading.

Graduate Courses

C206. Media Studies. (5) Lecture, three hours; out- side study, three hours. Designed for graduate design I. Focus on learning role of conceptual designer as visual communicator and design manager. P/NP or letter grading.

C211. Fundamentals of Architectonics: Propor- tion. (4) (Same as Architecture and Urban Design M225A.) Lecture, three hours; outside study, nine hours. Inquiry concerning architectural of spatial configurations from both a historical position and a mathematical viewpoint. May be repeated for credit with consent of adviser. Concurrently scheduled with course C210. Letter grading.

C212. Fundamentals of Architectonics: Symme-try. (4) (Same as Architecture and Urban Design M225B.) Lecture, three hours; outside study, nine hours. Inquiry concerning architectural of spatial configurations from both a historical position and a mathematical viewpoint. May be repeated for credit with consent of adviser. Concurrently scheduled with course C212. S/U or letter grading.

C221. Fundamentals of Architectonics: Compar- ison and Order. (4) (Same as Architecture and Urb- an Design M225C.) Lecture, three hours; outside study, nine hours. Inquiry concerning architectural of spatial configurations from both a historical position and a mathematical viewpoint. May be repeated for credit of specific courses relevant to design theory and performance. Topics announced in advance. Letter grading.

C222. Fundamentals of Architectonics: Compar- ison and Order. (4) Lecture, three hours. Designed for graduate students. Survey of architectural tech- niques used in design and computation theory. Sets, relations, posets, lattices, Boolean and Heyting algebras, formal languages and production systems. May be repeated for credit with consent of adviser. S/U or letter grading.

C223. Fundamentals of Architectonics: Compa- rison and Order. (4) Lecture, three hours. Designed for graduate students. Survey of architectural tech- niques used in design and computation theory. Sets, relations, posets, lattices, Boolean and Heyting algebras, formal languages and production systems. May be repeated for credit with consent of adviser. S/U or letter grading.
229. Advanced Seminar: Architectonics. (4) Seminar, three hours. Requisites: courses CM221, CM222, CM223. Exploration in depth of an active research question in architectonics. Topics may focus on some aspect of proportion, symmetry, compartmentation, and order from historical and/or formal point of view. May be repeated for credit with consent of adviser. S/U or letter grading.

CM241. Programming Computer Applications in Architecture and Urban Design. (4) (Same as Architecture and Urban Design M227A.) Lecture, three hours; outside study, nine hours. Introductory course in logic of computing through experiments in computer graphics programming. Investigation of both procedural and object-oriented approaches to programming. May be repeated for credit with consent of adviser. Concurrently scheduled with course C141. S/U or letter grading.

CM242. Introduction to Geometric Modeling. (4) (Same as Architecture and Urban Design M227B.) Lecture, three hours; outside study, nine hours. Requisite: course CM241. Survey of geometric and three-dimensional modeling, with emphasis on implementation of three-dimensional solids constructions and editing operations. Basic representations and operations on shapes and solids. May be repeated for credit with consent of adviser. Concurrently scheduled with course C142. S/U or letter grading.

CM243. User Interaction Techniques in Design. (4) (Same as Architecture and Urban Design M227C.) Lecture, three hours; outside study, nine hours. Requisite: course CM241 or knowledge of C++ programming language. Programming techniques for implementing modern computer-user interfaces, specifically looking at issues relevant to building software tools for computer-aided problem solving in architecture and design. May be repeated for credit with consent of adviser. Concurrently scheduled with course C143. S/U or letter grading.

249. Advanced Seminar: Computer Applications. (4) Seminar, three hours. Requisite: course C141 or CM241 or Architecture and Urban Design M227A. Survey of various roles computers may play in design: development of new applications. Topics include representation, search, evaluation functions, and communication. May be repeated for credit with consent of adviser. Concurrently scheduled with course C142. S/U or letter grading.

254. Dynamic Media. (4) Lecture/studio, six hours. Designed for graduate design I media arts majors. Emphasis on creation of dynamic, digital, and linear works through integration of typography, photography, video, graphics, animation, and sound. May be repeated for credit with consent of adviser. Letter grading.


258. Current State of Technology. (4) Lecture/studio, six hours. Designed for graduate design I media arts majors. Introduction to state-of-the-art software programs and techniques necessary for design of interactive and multimedia applications. May be repeated for credit with consent of adviser. Letter grading.

269. Graduate Seminar. (4) Seminar, four hours. Designed for graduate design I media arts majors. Survey of critical theories in media art and design. Critical examination of student work by peers, faculty, and expert guests. Must be taken twice for M.F.A. degree. May be repeated for credit with consent of adviser. Letter grading.

287. Form and Structure. (2 to 8) Studio or studio/seminar, to be arranged. Exploration of form, with emphasis on expressive experimentation in materials and processes. May be repeated for credit with consent of adviser. Letter grading.

289. Special Topics in Design. (2 to 8) Seminar, to be arranged. Examination of specific problems relevant to design theory and performance. Topics announced in advance. May be taken for a maximum of 8 units. Letter grading.

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

401. Design Studio I. (2 to 8) Studio, to be arranged. Limited to first-year graduate design I media arts students. Introduction to advanced experimentation and integration of media, technologies, and concepts, with emphasis on development of design work of individual graduate students. May be repeated for credit with consent of adviser. Letter grading.

402. Design Studio II. (2 to 8) Studio, to be arranged. Requisites: courses C206, 254, 256, 401 (4 units). Continuation of advanced design research based on experimentation integrated into a disciplined approach to design process. Focus on development of comprehensive body of work which forms basis of M.F.A. thesis exhibition. May be repeated for credit with consent of adviser. Letter grading.

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exploration of teaching pedagogies and classroom mechanics. Problems and practices of teaching design at college level, as well as role of teaching assistants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. 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.

Earth and Space Sciences / 233

Undergraduate Study

Diversified Liberal Arts Certificate Program

To earn the certificate in Diversified Liberal Arts, students must complete a major in the College of Letters and Science. (For eligibility of students in other schools, consult a DLAP counselor.) They must also complete DLAP requirements in four main areas: (1) language and literature, (2) mathematics and science, (3) history and social science, (4) arts and culture. Many program requirements can be satisfied by courses taken to fulfill general education requirements.

Students must petition for admission to the program and are advised to do so as soon as possible. Transfer students may petition to have suitable courses completed at other institutions applied toward the course requirements of this program. The College certifies completion of the program.

Students who do not complete the program prior to graduation must petition out of the program to be eligible to graduate.

For further information about the program and a complete list of courses that apply, contact a DLAP counselor in the College of Letters and Science, A316 Murphy Hall (310-206-6681; e-mail: dlap@college.ucla.edu). For information regarding the Teacher Credential Program in the Graduate School of Education and Information Studies, see a counselor in 1009 Moore Hall (310-825-8328).

DIVERSIFIED LIBERAL ARTS
College of Letters and Science Certificate Program

UCLA
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http://www.college.ucla.edu/up/dlap/

Faculty Advisory Committee
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Bruce J. Beidenwell, Ph.D.
Diane Juriga, Ph.D.
George E. Gadda, C.Phil.
Shelley Krieger, Ph.D.
Susan P. Mach, Ph.D.

Scope and Objectives

The Diversified Liberal Arts Program (DLAP) is not a major, but a special certificate program through which students may waive the Multiple Subject Assessment for Teachers (MSAT) in California. The MSAT examination must be passed (or the DLAP completed) before students in elementary school teaching credential programs may begin their student teaching. To earn an elementary school teaching credential, students must complete an accredited program offered through a graduate school of education.

EARTH AND SPACE SCIENCES
College of Letters and Science

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T. Mark Harrison, Ph.D.
Raymond V. Ingersoll, Ph.D.
David D. Jackson, Ph.D.
Vladimir Kelis-Borok, Ph.D., in Residence
Margaret G. Kivelson, Ph.D.
Craig E. Manning, Ph.D.
Kevin D. McKeegan, Ph.D.
Robert L. McPherron, Ph.D.
William I. Newman, Ph.D.
Gilles F. Peltzer, Ph.D.
Bruce N. Runnegar, Ph.D.
Christopher T. Russell, Ph.D.
J. William Schopf, Ph.D.
The Bachelor of Arts program in Earth Sciences 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 environmental sciences, law, government, business, journalism, public health, medicine, or dentistry. 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 B.S. degrees.

Undergraduate Study

Geology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1H, 51A, 51B, 61; Chemistry and Biochemistry 20A, 20B, 20L; Life Sciences 1; Mathematics 31A, 31B, 32A; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20 or Program in Computing 10A or knowledge of FORTRAN or C++ demonstrated by examination. All courses must be passed with a minimum grade of C–.

Transfer Students

To be admitted as Geology majors, transfer students with 90 or more quarter units (60 semester units) must complete as many of the following introductory courses as possible prior to admission to UCLA: one Earth sciences course, one biology course with laboratory, two general chemistry courses with laboratory for majors, one year of calculus, and one year of calculus-based physics with laboratory. One computer programming course is recommended.

The Major


Students with an interest in nonrenewable natural resources are advised to take courses 136C, 137, 139, 141, and/or 150. Those interested in geochemistry are advised to take Earth and Space Sciences 103C, C107, C109, 119, 121, C126, and/or Chemistry and Biochemistry 110A, 110B, 114, 132A, 132B, 153A, 184.

Geology/Engineering Geology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1H, 51A, 51B, 61; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20 or Program in Computing 10A or knowledge of FORTRAN or C++ demonstrated by examination. Recommended: Mathematics 32B. All courses must be passed with a minimum grade of C–.

Transfer Students

To be admitted as Geology/Engineering Geology majors, transfer students with 90 or more quarter units (60 semester units) must complete as many of the following introductory courses as possible prior to admission to UCLA: one Earth sciences course, one biology course with laboratory, two general chemistry courses with laboratory for majors, one year of calculus, and one year of calculus-based physics with laboratory. One computer programming course is recommended.

The Major

Required: Earth and Space Sciences 103A, 103B, 111, 112, 121, 135, 139; Civil and Environmental Engineering 108, 120, 121, 128L, 150; one course from Earth and Space Sciences C126, 129, 134, 136C, 137, 141, 150, Civil and Environmental Engineering 151, 155, Geography 100.

Geology/Paleobiology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1H, 16 or 17, 51A, 51B, 61; Chemistry and Biochemistry 20A, 20B, 20L, 30, 30L; Life Sciences 2, 3, 4; Mathematics 31A, 31B, 32A; Physics 1A, 1B, and 4AL, or 6A and 6B. All courses must be passed with a minimum grade of C–.

Transfer Students

To be admitted as Geology/Paleobiology majors, transfer students with 90 or more quarter units (60 semester units) must complete as many of the following introductory courses as possible prior to admission to UCLA: one Earth sciences course, one biology course with laboratory, two general chemistry courses with laboratory for majors, one year of calculus, and one year of calculus-based physics with laboratory. One computer programming course is recommended.

The Major


Geophysics/Applied Geophysics B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1H, 51A, 51B, 61; Chemistry and Biochemistry 20A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Mechanical
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 (12 units):
Earth and Space Sciences 1, 51A, 51B.

Required Upper Division Courses (20 to 26 units):
Two courses from Earth and Space Sciences C106, C107, C109, and three courses from 103A, 103B, 103C, 106 or C107 or C109 (whichever course was not applied above), 152, 153.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 which 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 (12 units):
Earth and Space Sciences 1, 61, and one course from 5, 8, 9, 15, 16, or 17.

Required Upper Division Courses (22 units):
Earth and Space Sciences 112, 119, and three courses from 116, 129, 133, 137, 139, 150.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 which requires quantitative analysis.

To enter the Geophysics and Planetary Physics minor, students must have an overall grade-point average of 2.0 or better.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 and Space Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Geochemistry, Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Geology, and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Geophysics and Space Physics.

Earth and Space Sciences

Lower Division Courses

1. Introduction to Earth Science. (4) Lecture, three hours; laboratory, two hours. Not open to students with credit for or currently enrolled in course 1F, 1H, or 100. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes; historical aspects of geology, P/NP or letter grading.

1F. Earth Science with Fieldwork. (5) Lecture, three hours; laboratory, two hours; two fieldwork days. Not open to students with credit for or currently enrolled in course 1, 1H, or 100. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes; historical aspects of geology. Introduction to field study of selected problems in geologic history, P/NP or letter grading.

1H. Fundamentals of Earth Science. (4) Lecture, three hours; laboratory, two hours; two field days. Not open to students with credit for or currently enrolled in course 1 or 100. Particularly recommended for future physical sciences majors with strong high school or some lower division preparation. Introduction to Earth materials, physical geology, and tectonics, with examples of geophysical and geochemical methods.

5. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in the region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.

Upper Division Courses

100. Principles of Earth Science. (4) Lecture, three hours. Designed for nonmajors. Not open to students with credit for course 1 or 1H. Fundamentals of physical geology and Earth history; major problems of geology, such as continental drift and development of large-scale features of Earth; physical and biological evolution.

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.


15. Introduction to Oceanography. (5) Lecture, three hours; laboratory, two hours. Not open for credit to students with credit for or currently enrolled in Organicin Biology 25. General introduction to geologi- cal, physical, chemical, and biological processes related to characteristics and evolution of ocean sys- tem. P/NP or letter grading.

16. Major Events in History of Life. (4) Lecture, three hours; laboratory, two hours. Designed for non- majors. History of life on Earth as revealed through the fossil record. P/NP or letter grading.

17. Dinosaurs and Their Relatives. (4) Lecture, three hours; laboratory, two hours; one optional field trip. Designed for nonmajors. Exploration of biology, evolution, and extinction of dinosaurs and close relat- tives, in context of history of biosphere. Information from paleontology, biology, and geology. P/NP or letter grading.

20. Natural History of Southern California. (5) Lec- ture, two hours; laboratory, three hours; five field weekends. Identification, distribution, diversity of native plants and communities; identification and interpretation of rocks, minerals, and geologic features and geologic history of physiographic regions of Southern California. Emphasis on field-based learn- ing. P/NP or letter grading.

51A. Mineralogy-Lithology. (4) Lecture, three hours; laboratory, six hours. Enforced prerequisite: course 1 or 1H. Recommended: completion of chem- istry requirement. Mineralogic crystal chemistry; rela- tion of physical properties to structure. Structural classification and petrogenesis of major minerals and rocks. Laboratory study of crystallography and identi- fication of minerals and igneous, sedimentary, and metamorphic rocks in hand sample.

51B. Optical Mineralogy. (4) Lecture, three hours; laboratory, six hours. Preparation: one introductory high school or college physics course. Enforced requisite: course 51A. Principles of optical crystallography. Use of optical properties to identify nonopaque minerals in immersion media and in thin section. Study of common igneous, sedimenta- ry, and metamorphic rocks in thin section.

61. Geologic Maps. (4) Lecture, two hours; laborato- ry, three hours; fieldwork, five days. Enforced requi- sites: courses 1 or 1H, 51A. Planning, creation, and interpretation of geologic maps, including both practi- cal and philosophical problems that arise. Topograph- ic and geologic mapping in the field. Interpretation of published maps in laboratory. P/NP or letter grading.

102. Reflected Light Microscopy. (2 or 4) Lecture, 90 minutes; laboratory, three hours. Requisite: course 51B. Study of opaline and polished section using reflected light methods. Optical theory, qualitative and quantitative measurements, mineral identification, textures and assemblages of reflective minerals, oxides, sulfides, and arsenides. Independent project required if taken for 4 units. P/NP or letter grading.

103A. Igneous Petrology. (6) Lecture, two hours; laboratory, six hours; field trips. Requisites: courses 51A, 51B, Chemistry 20B, 20L, Mathematics 31B. Mineralogical, chemical composition, and field oc- currence of igneous rocks with reference to their ori- gin by melting in earth. Introduction to thermodynam- ics as applied to petrology, magma, its movement, eruption, crystallization, and chemical evolution. Petrologic structure of the crust and mantle and its relation to seismology. Overview of petrologi- cal and chemical evolution of Earth, moons, and other planets from their origin to the present. P/NP or letter grading.

103B. Sedimentary Petrology. (6) Lecture, two to three hours; laboratory, six hours; field trips. Requi- site: course 103A. Recommended: course 61. Study of sedimentary rocks based on characteristics of sedi- mentary particles and dynamics of depositional pro- cesses. Lectures focus on development of deposition- al facies models, and laboratories emphasize recogni- tion of sedimentary deposits from each major depositional facies. P/NP or letter grading.

103C. Metamorphic Petrology. (6) Lecture, two to three hours; laboratory, six hours; field trips. Requi- site: course 103B. Interpretation of metamorphic rocks based on field occurrence, mineralogical com- position, texture, and application of physical and chemical principles. P/NP or letter grading.


C107. Geochemistry. (4) Lecture, three hours; dis- cussion, one hour. Designed for junior/senior and graduate physical sciences students. Origin and abundance of the elements and their isotopes; distrib- ution and chemistry of the elements in Earth and its environment. Concurrently scheduled with course C207. P/NP or letter grading.


111G. Field Geology. (2 to 4) Designed for gradu- ate students. Geologic mapping, principles of stratig- raphy, structural geology, and map interpretation.

112. Structural Geology. (6) Lecture, three hours; laboratory, six hours. Requisite: course 111G. Recommended: course 51B. Planar and linear structures at different scales in sedimentary, metamorphic, and igne- nous rocks. Faults and folds, their description, class- sification, and kinematic and dynamic analysis. Deforma- tion, strength, fracture, and rheological properties of rocks. P/NP or letter grading.

153. Oceans and Atmospheres. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C (or 2AH and 2BH) hours; knowledge of dynamic and thermal processes in the ocean and atmosphere; origin and evolution of planetary atmospheres; biogeochemical cycles, atmospheric radiation and climate, energetics and dynamics of oceanic and atmospheric circulation systems. P/NP or letter grading.


155. Planetary Physics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C (or 2AH and 2BH). 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. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum which varies in focus from general geology through structure and tectonics, sedimentology, igneous processes, metamorphism, hydrology, and other subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C260. P/NP or letter grading.

157. Field Geology for Graduate Students. (2 to 4) Lecture, two hours; four to five field trips. Requisite: course 121B. Required of new graduate students in geology program. Advanced techniques in field geologic mapping, exposing students to igneous, metamorphic, and sedimentary terranes with varying amounts of tectonism. May be repeated for credit. P/NP or letter grading.

158. Honors Research in Earth and Space Sciences. (4) Limited to seniors. Individual research designed to broaden and deepen students' knowledge of some phase of Earth and space sciences.

Graduate Courses

200A. Introduction to Geophysics and Space Physics I: The Solid Earth. (4) Lecture, three hours. Requisites: Physics 105A, 110A, 112, 131. Geochemistry, cosmochemistry, and petrology; geotectonics; gravity field; seismology; heat transfer; thermal and mechanical evolution of the mantle; core and geomagnetism; lunar and planetary interiors.


229. Planetary Atmospheres. (4) Lecture, three hours. Requisite: course 200B. Planetary atmospheric structure, dynamics, and composition. Topics include spacecraft instrumentation and evolution of atmospheres; photochemistry, radiation mechanisms, and transport; atmospheric waves and general circulation; wave-mean flow and turbulence; remote sensing and inversion techniques.

230. X-Ray Crystallography. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51B. Point, translation, and space group symmetry; diffraction geometry, reciprocal space theory; single crystal X-ray methods; diffraction symmetry and elementary crystal structure analysis.

231. Crystal Chemistry and Structure of Minerals. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51B. Bonding, ionic configurations, polymorphic transformations, isomorphism, thermal and positional disorder; survey of structures of common minerals, and relation of physical and chemical properties to crystal structure.


234. Petrologic Phase Equilibria. (4) Lecture, three hours; discussion, three hours. Requisite: course 51B, Chemistry 110B. Principles governing homogeneous and heterogeneous equilibria, with selected applications to mineral stability relations in igneous and metamorphic rocks (fractional crystallization, partial melting, hydrothermal solutions, element partitioning in coexisting phases). S/U or letter grading.

235A-235B-235C. Current Research in Geochemistry. (1-1-1) Limited to graduate Earth and space sciences students. Seminars presented by staff, outside speakers, and graduate students stressing current research in Earth and planetary chemistry. May be repeated for credit. S/U grading.

236. Meteorite Petrology. (4) Lecture, three hours; laboratory, six hours. Preparation: one introductory petrology and petrography course. Interpretation of metamorphic rocks in light of observation, theory, and experiment. Cosmic dust, meteorites, petrography: evidence, meteoritic zoning, thermodynamics of phase equilibria, projections, climatic relationships, use of piezobirefringent haloes, Rayleigh depletions model, isotopic fractionation, environmental factors of metamorphism. Laboratory study of representative meteoritic rocks and suites of rocks selected to illustrate topics discussed in lectures.

240. Space Plasma Physics. (4) Lecture, three hours. Requisite: consent of instructor. Theory of plasmas in space, including treatments based on magnetohydrodynamics and kinetic theory. Applications to solar or planetary winds; steady-state magnetospheres; magnetospheric convection; substorm processes; magnetic merging; field-aligned currents and magnetosphere/ionosphere coupling; ring current dynamics; and wave particle instabilities.


242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisite or corequisite: course 141. Petrographic study of sandstones, with emphasis on provenance, petrofacies, and paleotectonic reconstructions.

248. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, folding, and flow of rocks; solutions of structural problems at various scales; regional tectonic problems.


251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal structure, crystal chemistry, phase equilibria, and petrogenesis.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and ancient sediments, structure and chemistry of upper mantle, geochronology, cosmochemistry, and cosmochemistry.

253. Seminar: Petrology. (4) Seminar, three hours. Problems of igneous or metamorphic petrology: methods of evaluating physical conditions of metamorphism; diffusion in mineralogical systems; origin of ultramafic rocks and problems of the mantle; element fractionation among coexisting phases; other current subjects in the field. S/U or letter grading.

254. Seminar: Sedimentology. (4) Seminar, three hours. Principles of transport processes, sedimentation; deep sea sediments; deltas and estuaries; petrology of carbonates, sandstones, and lutites; stratigraphy; paleoenvironmental studies.

255. Seminar: Structural Geology and Tectonics. (4) Seminar, three hours. Flow and fracture in Earth's crust from microscopic to continental scale and in experiments. Examples may include metamorphic terranes, glaciers, plutons, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segregation of continental-type rocks.

257. Seminar: Paleontology. (4) Seminar/discussion, three hours. Advanced topics in paleobiology, biostatigraphy, paleoecology, and paleobiogeography, with emphasis on relations to other disciplines.

258. Seminar: Paleotectonics. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on the Phanerzoic of the western United States.

C260. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum for students majoring in general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subdisciplines as prescribed. May be repeated for credit. Contact instructor scheduled with course C160. S/U or letter grading.

261. Topics in Magnetospheric Plasma Physics. (4) Lectures, discussions, and exercises on specific advanced topics in magnetospheric plasma physics. Previous courses examined magnetic storms, magnetospheric substorms, ultralow frequency waves, and adiabatic particle motion in Earth's radiation belts.

265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (4) Lecture, three hours. Principles, testing, and operations of magnetometers and other instruments. Data processing, display, and analysis of data techniques, including filtering, Fourier series, eigenanalysis, and power spectra.

M270A-M270B-M270C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Atmospheric Sciences M272A-M272B-M272C and Geography M270A-M270B-M270C.) Seminar, two hours. Archaeological, geophysical, micropaleontological, and stratigraphic evidence for climate change throughout the geologic past. Rheology and dynamic of climatic sub-systems; atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction of modern climate on monthly, seasonal, and interannual time scales. May be repeated for credit. S/U or letter grading.

275. Geocomplexity and Earthquake Predictions. (4) Lecture, two hours; discussion, two hours. Understand earthquake prediction and method for solving critical phenomena (defined as abrupt overall changes) in Earth's crust, mathematical modeling and analysis of data from seismicity, remote sensing, and hydrology. Extensions to critical phenomena in engineering and socio-economic systems. Letter grading.


282. Seminar: Geophysics. (4) Seminar, two hours; discussion, two hours. Seismology, geophysical prospecting, electromagnetic prospecting. Selected topics in Earth physics. Content varies from year to year. May be repeated for credit.

M285. Origin and Evolution of Solar System. (4) (Same as Astronomy M285.) Dynamical problems of solar system; chemical evidences from geochemistry, meteorite, and nucleosynthesis, and element abundance; solar origin, evolution, and termination; solar nebula, hydromagnetic processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.


289. Seminar: Advanced Structural Geology. (4) 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.


295A-295B-295C. Current Research in Earth and Space Sciences. (1-1-1) Limited to graduate Earth and space sciences students. Advanced study and analysis of current topics. May be repeated for credit. Written reports required. May be repeated for credit. S/U grading.

296A-296Z. Research Topics in Earth and Space Sciences. (1 each) Discussion, one to three hours. Designed for graduate Earth and space sciences students. Advanced study and analysis of current topics in Earth and space sciences. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

297A. Rock Deformation, Structural Geology, Tectonics. 297B. Volcanology and Geochemistry of Volcanic Rocks.

296C. Seismology and Solid Earth Physics.

296D. Thermal Evolution of Lithosphere.

296E. Sedimentation and Tectonics.

296F. Seismology.

296G. Planetary and Orbital Dynamics.

296H. Space Plasma Physics.

296I. Earthquake Seismology.

296J. Metamorphic Petrology.

296K. Quantitative and Molecular Paleobiology.

296L. Magnetic Phenomena.

296N. Planetary Physics.

296O. Martian Surface and Atmosphere.

296P. Tectonics and Stratigraphy.

296Q. Chemical Geodynamics.

296R. Paleobiology.

296S. Planetary and Space Physics.

296T. Precambrian Paleobiology.

296U. Geophysical Fluid Dynamics.

296V. Geomorphology and Geophysical Physics.

296W. Cosmochemistry.

296X. Structural Geology, Tectonics.

296Y. Earthquakes and Earth Structure.

297. Advanced Techniques in Geological Research. (2 to 4) Seminar, two to four hours. S/U or letter 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, or letter grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: course M370A or Chemistry M370A or Physics M370A (or former course 370). 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 a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Teaching Earth 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 and 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 and/or Research. (2 to 12) May be repeated. S/U or letter grading.
EAST ASIAN LANGUAGES AND CULTURES
College of Letters and Science

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Scope and Objectives
The Department of East Asian Languages and Cultures offers a wide range of courses in the languages, literatures, religions, and cultural heritage of China, Japan, and Korea, as well as South and Southeast Asia. The department offers training in many specialized fields such as archaeology, film, folklore, history, linguistics, literature, mythology, religious studies, and cultural studies. Courses prepare students for careers in business, government service, international relations, journalism, law, publishing, teaching, and academic professions.

Undergraduate majors earn a Bachelor of Arts degree. The graduate program offers Master of Arts and Ph.D. degrees. At all levels of study, various major fields are possible.

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 provide opportunity for education abroad in an East 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 honors program.

At the graduate level, the department offers a program leading to an M.A. degree in several fields of East Asian culture. The M.A. degree is preparatory to entrance into the Ph.D. program. The Ph.D. program, which is very selective, trains research scholars for academic careers in specialized fields.

Courses for Nonmajors
The department offers many courses in which knowledge of Asian languages is not required. A current list is available in the department office (290 Royce Hall) and at http://www.humnet.ucla.edu/humnet/ealc/ealcmain.html.

Undergraduate Study
The department offers two majors in the study of Asian cultures — B.A. in Asian Humanities and B.A. in Asian Religions — and three majors in East Asian literatures — B.A. in Chinese, B.A. in Japanese, and B.A. in Korean. All courses in the majors must be taken for a letter grade.

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

Students considering a major or minor in the department should consult 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 at http://www.humnet.ucla.edu/humnet/ealc/ealcmain.html.

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, Japanese, and Korean 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 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 Chinese, Japanese, or Korean may not repeat those 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 course in Chinese, Japanese, and Korean conversation, grammar, and/or composition.

Asian Humanities B.A.

Preparation for the Major
Required: Chinese 6 or Japanese 6 or Korean 6 or equivalent; one civilization course (e.g., Chinese 50, Japanese 50, 60, Korean 50) or one introduction to religion course (e.g., East Asian Languages and Cultures 60, 60W, 61) within the department.

Transfer Students
To be admitted as Asian Humanities majors, transfer students 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, or Korean and either one Chinese, Japanese, or Korean civilization course or one introduction to Buddhism course.

The Major
Required: Five upper division language courses in Chinese or Japanese or Korean, and six additional upper division electives within the department, including at least one
course each concerning China, Japan, and Korea.

**Asian Religions B.A.**

**Preparation for the Major**

**Required:** Chinese 6 or Japanese 6 or Korean 6 or equivalent; East Asian Languages and Cultures 60 or 60W or 61.

**Transfer Students**

To be admitted as Asian Religions majors, transfer students 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, or Korean and one introduction to Buddhism course.

**The Major**

**Required:** Five upper division language courses in Chinese or Japanese or Korean (of which at least one must be from Chinese 165, Japanese 165, Korean 165), five additional upper division Asian religions courses within the department, including at least one course each concerning religions in China, Japan, and Korea, and one elective within the department.

**Japanese B.A.**

**Preparation for the Major**

**Required:** Japanese 6 or equivalent, and 50 or 60.

**Transfer Students**

To be admitted as Japanese majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese and one Chinese civilization course.

**The Major**

**Required:** Five upper division Chinese language courses (of which at least two must be in the premodern language or texts), three upper division Chinese literature courses, two upper division electives in Chinese, and one upper division elective in East Asian languages and cultures or Japanese or Korean.

**Korean B.A.**

**Preparation for the Major**

**Required:** Korean 6 or equivalent, 50.

**Transfer Students**

To be admitted as Korean majors, transfer students 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.

**The Major**

**Required:** Five upper division Korean language courses, three upper division Korean literature courses, two upper division electives in Korean, and one upper division elective in Chinese or East Asian languages and cultures or Japanese.

**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 Winter 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 further information, contact the departmental undergraduate advisor.

**Requirements**

Two honors projects, a seminar, and an honors thesis are required. The honors project consists of special research on a topic in an upper division course in the department selected in consultation with the instructor, resulting in a written report to be completed with a grade of B+ or better, in addition to the normal course requirements. All honors students are required to demonstrate the ability to conduct research by writing an honors thesis. In preparation for this project, students must take East Asian Languages and Cultures 199H, in which they write a seminar paper. At least one honors project must be completed prior to enrolling in course 199H. After completing the seminar, they must also take East Asian Languages and Cultures 199H during which they revise their seminar paper into an honors thesis under the direction of a faculty member. Course 199H (4 units minimum) must be taken in addition to courses required for the major and an overall GPA of 3.5 or better, (3) complete an honors project in each of two upper division courses within the department, (4) complete an undergraduate seminar within the department, and (5) complete East Asian Languages and Cultures 199H.

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 3.5 or better in upper division courses required for the major and an overall GPA of 3.0 or better, (3) complete an honors project in each of two upper division courses within the department, (4) complete an undergraduate seminar within the department, and (5) complete East Asian Languages and Cultures 199H with a grade of A.

**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 file a petition with the departmental undergraduate adviser.

**Required Lower Division Courses (8 units):**
Two civilization courses (e.g., Chinese 50, Japanese 50, Korean 50) or two introduction to religion courses (e.g., East Asian Languages and Cultures 60, 60W, 61) within the department.

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

No more than 4 units may be applied toward both the students’ majors and this minor, and at least 20 units must be taken in residence at UCLA.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**East Asian Languages Minor**

The East Asian Languages minor is designed to recognize a serious commitment to the study of East Asian languages. It is especially suited for students who wish to augment their major program in the College of Letters and Science with mastery of the Chinese, Japanese, or Korean language. The lower division survey course in civilization or religious tradi-
tion provides students with an essential introduction to the diverse cultural heritages of Asia. The upper division language courses provide students with advanced skills in speaking, aural comprehension, reading, and writing the Chinese, Japanese, or Korean language.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units at UCLA, and file a petition with the departmental undergraduate adviser.

Required Lower Division Courses (8 units):

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Recommended ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

2. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 2A. P/NP or letter grading.

4. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 3A or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. P/NP or letter grading.

5. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 4 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 5 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Modern Chinese. (4-4-4) Lecture, two hours; discussion, two hours. Enforced requisite: course 6 or Chinese placement test. Course 100A or Chinese placement test is enforced requisite to 100B; course 100B or Chinese placement test is enforced requisite to 100C. 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.

101A-101B. Advanced Readings in Modern Chinese. (4-4) Lecture, two hours; discussion, two hours. Enforced requisite: course 100C or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on China. Topics from magazines, journals, and books related to humanities and social sciences. Courses may be taken independently for credit. Letter grading.

110A-110B-110C. Introduction to Classical Chinese. (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Courses 110A or Chinese placement test is enforced requisite to 110B; course 110B or Chinese placement test is enforced requisite to 110C. Grammar and readings in selected premodern texts. P/NP or letter grading.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnelt.ucla.edu. 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 East Asian Languages and Cultures offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in East Asian Languages and Cultures.

Chinese

Lower Division Courses

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intro-duction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills — speaking, listening, comprehension, reading, and writing. P/NP or letter grading.

2. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. P/NP or letter grading.

4. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 3A or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. P/NP or letter grading.

5. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 4 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 5 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

6A. Intermediate Modern Chinese for Advanced Students. (5) (Formerly numbered 3R) Lecture, five hours. Enforced requisite: course 5A or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5A. P/NP or letter grading.

7. Mandarin for Cantonese Speakers. (5) (Formerly numbered 3C) Lecture, four hours. Enforced requisite: course 5C or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. Completion of course 6C is equivalent to completion of course 6. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills — speaking, listening comprehension, reading, and writing. Offered in summer only. Letter grading.

10. Intermediate Modern Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 3 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 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 10 is equivalent to completion of course 6. Offered in summer only. Letter grading.

100A-100B-100C. Advanced Modern Chinese. (4-4-4) Lecture, two hours; discussion, two hours. Enforced requisite: course 6 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.

130A-130B. Readings in Modern Chinese Literature. (4-4) Lecture, discussion, one hour. Enforced requisite: course 100B or Chinese placement test. Readings and discussion of works of modern Chinese literature. Each course may be taken independent for credit. Letter grading.

140A-140B-140C. Readings in Classical Chinese Literature. (4-4-4) Readings/discussion, three hours. Enforced requisite: course 110B or Chinese placement test. Readings and discussion of works of pre-modern Chinese literature. Each course may be taken independent for credit. Letter grading. 140A. Poetry; 140B. Prose; 140C. Fiction.

C150A. Lyrical Traditions. (4) Formerly numbered 150A.) Lecture, three hours. 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. May be taken independent for credit. Concurrently scheduled with course C250A. P/NP or letter grading.

150B. Traditional Narrative and Drama. (4) Lecture, three hours. Knowledge of Chinese not required. Readings in dramatic writings of traditional China, with emphasis on self and society, growth of fictionality, subjectivity, and gender representation. May be taken independent for credit. Letter grading.

151. Chinese Literature in Translation: Modern Literature. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Chinese not required. Lectures and reading of representative works from 1900 to the 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 modernism, nationalism, feminism, mass culture, and media. Letter grading.


155. Topics in Chinese Cinema. (4) Lecture, three hours; film viewing, four hours. Knowledge of Chinese not required. Critical understanding of films from Hong Kong, Taiwan, and China to be offered. Examination of questions of cultural identity, transnationalism, postmodernity, and intersections between politics and culture in this “Greater China” region. P/NP or letter grading.


C175. Introduction to Chinese Thought. (4) Formerly numbered 175.) Lecture, three hours. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 B.C.E.), with focus on invention of “Confucian” tradition (including Five Classics) and on defenses of that tradition against challenges from “Mohists,” “Taoists,” and other groups of thinkers. Concurrently scheduled with course C275. Letter grading.

180. Chinese Mythology. (4) Lecture, three hours. Knowledge of Chinese not required. Survey of corpus of traditional Chinese mythology, with focus on examples preserved in a variety of early texts, later evolutions in dramatic and fictional works, and evidence from visual arts. Letter grading.


195. Chinese Etymology and Calligraphy. (4) Lecture, three hours. Enforced requisite: course 110B or Chinese placement test. Coverage of (1) development of the Chinese writing system from the “Pottery Inscriptions” 6,000 years ago to modern “Simplified Forms” and the studies of Six Scripts principles which were used to form Chinese characters and (2) aesthetic training of calligraphic art and its appreciation, with focus on ways of recognizing and interpreting the “Cursive Style,” a common form of handwriting. Letter grading.

197B. Undergraduate Seminar: 20th-Century China and Taiwan. (4) Seminar, three hours. Designed for juniors/seniors. Undergraduate seminar on related topics in modern and contemporary literature and culture from China and Taiwan. Letter grading.

Graduate Courses

200A. Bibliography and Methods of Research in Chinese. (4) Formerly numbered 200L.) Seminar, three hours. Lectures and discussion on research methodologies for dealing with traditional Chinese materials, with emphasis on training (including most up-to-date indexes in Chinese studies), punctuation practice, knowledge of textual criticism, and rare book editions. S/U or letter grading.

200B. Proseminar: Premodern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of premodern Chinese literature, with focus on research tools in the field and on scholarship in English on major literary genres, periods, and authors. S/U or letter grading.

200C. Proseminar: Modern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Chinese literature, with focus on research tools and on scholarship in English on modern literature and genres. S/U or letter grading.

M201. China — Seminar: Classical Historiography and Readings in Classical Studies. (4) Same as History 250A. Preparation: command of modern Chinese. Seminar focuses on sources, controversies, major literary genres, and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. May be repeated for credit. Letter grading.

205. Methods and Issues in 20th-Century Chinese Literature and Culture. (4) Seminar, three hours. Methodological course for all incoming graduate students in 20th-century Chinese literature and culture. Discussion of major theoretical and textual issues and methods.

210. Modern Chinese Literary History. (4) Lecture, three hours. Designed for graduate students. Discussion of history of modern Chinese literature, focusing on narrative, political, and philosophical themes, and critical approaches to studying the relationship between literature and history.


212. Topics in Chinese Poetry. (4) Readings/discussion, three hours. Selected readings from classical poetic tradition, with focus on individual poets, themes, or other critical issues. May be repeated for credit with consent of instructor. Letter grading.

220A-220B. Western Theory and Chinese Texts. (4-4) Seminar, three hours. Discussions to be framed by Western literary and cultural theory, investigating both challenges and limitations Western theory may pose for Chinese literary and cultural studies. Specific topics vary from year to year. In Progress and S/U or letter grading.


220A-230B. Seminars: Selected Topics in Modern Chinese Literature. (4-4) Seminar, three hours. Selected readings in 20th-century Chinese literature, emphasizing fiction. Discussion of individual research projects. May be repeated for credit. In Progress grading.

241-241B. Heaven, Earth, and Monarchy in Ancient China. (4-4) Seminar, three hours. Preparation: working knowledge of classical Chinese. Close reading of chapters from the Han dynasty collection of writings on the forms of music, social interaction, education, marriage, and mourning in the Zhou royal court, with discussion of topics in recent cultural semiotics and anthropology. In Progress grading.

242. Chinese Classics and Exegetical Traditions. (4) Seminar, three hours. Preparation: command of modern Chinese. Reading and discussion of selections from one of the traditional Chinese classics (Confucian Five Classics, others), with introduction to exegetical tradition, secondary scholarship, and research methodology. Topics vary from year to year. May be repeated for credit.


245A-245B. Seminars: Traditional Chinese Narrative and Drama. (4-4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on generic, iconographical, and historical approaches. Topics in narrative are selected from genres through Ch’ing periods. Topics in drama selected from ts’u-ch’ü and ch’ü-lan-ch’ü. May be repeated for credit with consent of instructor. In Progress grading.

C250A. Lyrical Traditions. (4) Lecture, three hours. Enforced requisite: course 110C. Readings of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

256A-256B. Chinese Literary Criticism. (4-4) Formerly numbered 250A-250B.) Seminar, three hours. Issues in production and interpretation of literary works, as formulated by Chinese critics from classical age onward. Letter grading.
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Upper Division Courses

120. Languages and Cultures of East Asia. (4) 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. Concurrently scheduled with course C160. Letter grading.

258A-258B. Seminars: Chinese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress grading.

C275. Introduction to Chinese Thought. (4) Lecture, three hours. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 B.C.E.), with focus on invention of “Confucian” tradition (including Five Classics) and on defenses of that tradition against challenges from “Mohists,” “Taoists,” and other groups of thinkers. Concurrently scheduled with course C175. Letter grading.

290A-290B. Seminars: Selected Topics in Chinese Archaeology. (4-4) Seminar, three hours. Requisite: course 190. Discussion and research on major problems about Chinese archaeology and different interpretations to the most important archaeological finds, with emphasis on studies of the Xia and Shang cultures and Xia and Shang dynasties. May be repeated for credit. In Progress and letter grading.

295A-295B. Seminars: Selected Topics in Chinese Cultural History. (4-4) Seminar, three hours. Discussion and research on major problems related to Chinese culture, such as beginnings of the Chinese civilization and Chinese dynastic history. Other topics include cultural developments of ancient and medieval China. May be repeated for credit. In Progress grading.

296A-296B. Seminars: Chinese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress and letter grading.

299A-299B. Seminars: Chinese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress and letter grading.

362. Introduction to Buddhism. (3) Lecture, three hours; discussion, one hour. The historical development of Buddhism in China and its interaction with Chinese culture. Emphasis on the Theravada and Zen schools. Topics include the historical development of Buddhist thought and practice in China, and the development of Chinese Buddhist texts. In Progress grading.

362B. Meditation Traditions. (4) Lecture, three hours. Knowledge of Chinese languages not required. Survey of theory and practice of meditation in Buddhism, with emphasis on Chinese and Zen schools. Topics include the history of meditation in Buddhism, as well as contemporary and historical meditation practices. Letter grading.

161. Buddhist Literature in Translation. (4) Readings, three hours. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Chinese languages not required. Readings from a variety of Buddhist literature of Indic and non-Indic origin, with emphasis on key Buddhist themes and critical issues in cross-cultural interpretation of Asian religious texts. Letter grading.

162. Buddhist Meditation Traditions. (4) Lecture, three hours. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Chinese 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.

163. Buddhism across Boundaries. (4) Lecture, two hours; discussion, one hour. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Chinese 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 historical material, and linguistic approaches to history of religions. Letter grading.

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

C199H. Honors Tutorial. (4) Seminar, three hours. Limited to seniors. Limited to departmental honors students. Introduction to research methods and critical approaches to study of East Asia in preparation for writing of senior honors thesis. Letter grading.

199H. Honors Tutorial. (4) Seminar, three hours. Limited to seniors. Tutorial in which students write honors theses under direction of faculty member. Letter grading.

Graduate Courses

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

201. Proseminar: Approaches to Buddhist Studies. (4) Seminar, three hours. Designed for graduate students in Buddhist studies. Introduction to history of field, bibliography, relations with other disciplines, and current issues and research trends. S/U or letter grading.


221. Seminar: Cultural and Comparative Studies. (4) Seminar, three hours. Designed for graduate students. Introduction to theoretical topics relevant to comparative study of East Asian cultures in the modern period. Readings include Western theoretical works balanced with texts taking congruent approaches to East Asian topics. S/U or letter grading.


230A-230B. Seminars: Topics in Cultural Studies. (4-4) Seminar, three hours. Complements course 210. Further investigation of methodology and materials of cultural studies in connection with specific topics selected by instructors. May be repeated for credit. In Progress and letter grading.

222. Seminar: Corpus Linguistics. (4) Seminar, three hours. Construction and exploitation of language corpora for studying issues in areas such as lexicology, discourse grammar, language change and variation, language learning, and teaching. Discussion of special issues in working with East Asian language corpora. S/U or letter grading.

230A-230B. Seminars: Theoretical Topics in East Asian Literature. (4-4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Concerns of three hour topics which are brought to the fore by reading of literature from or about East Asia. Readings from both Western and Eastern sources. Topics vary. Non-Indic language option. S/U or letter grading.

238. Travel Writing in East Asia. (4) Lecture, three hours. Recommended preparation: Chinese 50 or Japanese 50 or 60. Exploration of travel writing about countries of East Asia and Japan, with focus on English translations of works by native writers and by foreign visitors through the centuries. Concurrently scheduled with course C138. Letter grading.
C239. The Garden in East Asia. (4) Lecture, three hours. Recommended preparation: Chinese 50 or Japanese 50. Survey of gardens and their history as literary gardens and as common to East Asian and European literatures. Prerequisite: course 110C. S/U grading.

C240A-240B. Seminars: Topics in East Asian Literary History. (4-4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Corequisite: course 245B. S/U or letter grading.


251. Seminar: Literary Theory. (3) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. General introduction to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, the written and the oral, etc. In Progress grading.

240A-240B. Seminars: Topics in East Asian Literary History. (4-4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Corequisite: course 245B. S/U or letter grading.


251. Seminar: Literary Theory. (3) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. General introduction to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, the written and the oral, etc. In Progress grading.


251. Seminar: Literary Theory. (3) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. General introduction to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, the written and the oral, etc. In Progress grading.


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251. Seminar: Literary Theory. (3) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. General introduction to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, the written and the oral, etc. In Progress grading.


251. Seminar: Literary Theory. (3) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. General introduction to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, the written and the oral, etc. In Progress 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. Intensive course equivalent to courses 4, 5, and 6. Reading, writing, and listening to audio tapes. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

2. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 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, five hours. Enforced requisite: course 3 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, vocabulary building skills, language learning skills, and sociocultural knowledge. P/NP or letter grading.


7. Elementary Japanese Intensive. (15) Lecture, ten hours; discussion, ten hours. Enforced requisite: course 6 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Japanese, including pronunciation, grammar, and Japanese characters, with emphasis on all basic language skills — speaking, listening, comprehension, reading, and writing. Offered in summer only. Letter grading.

8. Intermediate Modern Japanese: Intensive. (15) Lecture, ten hours; discussion, ten hours. Enforced requisite: course 7 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Reading, writing, and listening to audio tapes. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 6. P/NP or letter grading.


12. Images of Japan: Literature and Film. (5) Lecture, basis/screencrines, four hours; discussion, two hours. Knowledge of Japanese culture, literature, or language not required. Introduction to visual and textual images of Japan’s literary heritage, including documentary and feature films based on Japan’s literary classics. Letter grading.


Upper Division Courses

100A-100B-100C. Advanced Modern Japanese. (4-4-4) Lecture, five hours; discussion, one hour. Enforced requisite: course 6 or Japanese placement test. Course 100A or Japanese placement test is enforced requisite to 100B; course 100B or Japanese placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Learning Japa nese language with emphasis on sociocultural issues of contemporary Japanese society. Materials selected from contemporary publications, video’s, and audio tapes. Reading with focus on linguistics features, writing summaries and opinions, oral activities, and project work. P/NP or letter grading.

101A-101B. Advanced Readings in Modern Japanese. (4-4) Lecture, two hours; discussion, 90 minutes. Enforced requisite: course 100 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japan. Topics selected from magazines, journals, and books related to humanities and social sciences. Each course may be taken independently for credit. Letter grading.


140A. Evolution. (4) Lecture, three hours. Knowledge of Japanese not required. Use of fiction and film to explore different levels of organization: (1) word level — word class, verbal morphology and semantics; (2) clause/ sentence level — grammatical constructions; (3) discourse level — point of view, ellipsis, topicalization. Concurrently scheduled with course 2223. Letter grading.


150A. Prewar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from the 16th century to post-World War II. P/NP or letter grading.

150B. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from the 16th century to post-World War II. P/NP or letter grading.


CM123. Structure of Japanese II. (4) (Same as Linguistics M176B.) Lecture, three hours. Recommended preparation: two or more years of Japanese language study. Survey of Japanese language at three different levels of organization: (1) word level — word class, verbal morphology and semantics; (2) clause/ sentence level — grammatical constructions; (3) discourse level — point of view, ellipsis, topicalization. Concurrently scheduled with course C2223. Letter grading.


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4) Readings/discussion, three hours. Enforced requisite: course 100C or Japanese placement test. Course 130A or Japanese placement test is enforced requisite to 130B; course 130B or Japanese placement test is enforced requisite to 130C. Readings and discussion works by modern Japanese writers. Letter grading.

140A-140B-140C. Readings in Classical Japanese Literature. (4-4-4) Discussion, three hours; readings, nine hours. Enforced requisite: course 110 or Japanese placement test. Readings and discussion of works of premorden Japanese literature. Each course may be taken independently for credit. Letter grading.

140A. Heian; 140B. Medieval; 140C. Edo.

C149. Introduction to Kambun and Other Literary Styles. (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 Japanese not required. Survey of Japanese literature from the beginning to 1600, emphasizing Chinese, Buddhist, and Western influences. P/NP or letter grading.

151. Japanese Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from the 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. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from the 16th century to post-World War II. P/NP or letter grading.

M156. Literature and Technology. (4) (Same as Comparative Literature M176.) Lecture, three hours. Knowledge of Japanese 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.


C171. Topics in Japanese Studies. (4) Lecture, three hours. Enforced requisite: course 100C or Japanese placement test. Advanced course that explores Japanese culture through in-depth reading of Japanese-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. Concurrently scheduled with course C271. P/NP or letter grading.

175. Introduction to Japanese Thought. (4) Lecture, three hours. Knowledge of Japanese not required. General survey of Japanese thought from early to modern times, including analyses of Shinto mythology, forms of Confucianism, ethic of bushido, National Learning School, and modern Japanese philosophers such as Nishida Kitaro and Watsuji Tetsuro. Attention also to representative types of contemporary thinking about Japanese thought, especially the question of what might qualify as recognizably “Japanese” in aesthetics, ethics, and philosophy. Letter grading.


C182. Japanese Folklore. (4) (Formerly numbered CM182.) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (festivals) and observances of the Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist servances of the Japanese, with special emphasis on informant movements, new religions, and continuing role of traditional village/family religious rites. Letter grading.


C197B. Seminar: Modern Japan. (4) Seminar, three hours. Selected topics on modern Japan. Concurrently scheduled with course C297B. Letter grading.

Graduate Courses

200A. Research Methods in Japanese Linguistics. (4) (Formerly numbered 200B.) Seminar, three hours. Introduction to different research paradigms for Japanese linguistics, as well as resources associated with these approaches. Discussion of linguistic knowledge in traditional Japanese scholarship (Kokugo-gaku) and coverage of newer approaches from modern Western linguistics. S/U or letter grading.

201A-201B. Medieval Japanese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of premodern Japanese literature, with focus on research tools and on scholarship in English on history of books in Japan as well as on major literary genres. S/U or letter grading.

200C. Proseminar: Modern Japanese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Japanese literature, with focus on research tools and on scholarship in English on modern literary trends and genres. S/U or letter grading.


201A-201B. Introduction to Reading Japanese Academic Texts. (4-4) Lecture, three hours. Requisite: course 100A. Course 201A is requisite to 201B. Designed to prepare graduate students to conduct research in natural discourse data, both spoken and written, for linguistic analysis. Discussion of discourse taxonomy, data collection methodologies, data organization, analytical frameworks.

235A-235B. Seminars: Selected Topics in Modern Japanese Fiction. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress grading.

240A-240B. Seminars: Selected Topics in Japanese Literature. (4-4) Seminar, three hours. May be repeated for credit. In Progress grading.

241A-241B. Seminars: Japanese Classics. (4-4) Seminar, three hours. Prose and poetry from early times to 1868. May be repeated for credit with consent of instructor. In Progress grading.


245. Introduction to Kambun and Other Literary Styles. (4) Lecture, three hours. Requisite: course 110 or Japanese placement test. Introduction to Kambun, the Japanese literary rendering of premodem Sino-Japanese, and Sorobun, the epistolary style. Concurrently scheduled with course C149. Letter grading.


C223. Structure of Japanese II. (4) Lecture, three hours. Recommended preparation: two or more years of Japanese language study. Survey of Japanese languagage at three different levels of organization: (1) word level — word class, verbal morphology and semantics; (2) clause/sentence level — grammatical constructions; (3) discourse level — point of view, ellipsis, topicalization. Concurrently scheduled with course CM123. Letter grading.


C225A-225B. Seminars: Linguistic Analysis of Japanese Narratives. (4-4) Seminar, three hours. Requisite: course CM122. Analysis of selected modern and classical Japanese narratives. Emphasis on exploration of how grammatical features such as tense, aspect, voice, and point of view are utilized to achieve desired literary effects. May be repeated for credit with consent of instructor. In Progress grading.

226. Survey of Functional Linguistics. (4) Lecture, four hours. Survey of recent empirical and theoretical research in several areas of linguistics, especially semantics, which has served as backbone for development of Japanese discourse linguistics. May be repeated for credit with consent of instructor. S/U or letter grading.


228. Fundamentals in Discourse Data Analysis. (4) Lecture, three hours. Designed to prepare students to conduct research in natural discourse data, both spoken and written, for linguistic analysis. Discussion of discourse taxonomy, data collection methodologies, data organization, analytical frameworks.

235A-235B. Seminars: Selected Topics in Modern Japanese Narrative. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress grading.

236A-236B. Seminars: Selected Topics in Japanese Discourse Analysis. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress grading.
26SA-26SB. Seminars: Japanese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress grading.

270A-270B. Seminars: Japanese Ritual Arts. (4-4) (Formerly numbered M270A-M270B.) Seminar, three hours. Reading knowledge of Japanese not required. Discussions and readings on ritual (performing) arts of Japan comprising music, dance, storytelling, view- ing, purification, divination, disguise, mimicry, and possibly as well as acrobatic acts, with special emphasis on religio-magical purposes and symbolic structure of these arts. In Progress and letter grading.


276. Reading Modern Bodies. (4) (Same as Comparative Literature M276.) Seminar, three hours. Designed for graduate students. Exploration of constitution of human body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locales, with particular emphasis on Japanese. S/U or letter grading.


282. Japanese Folklore. (4) (Formerly numbered CM282.) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/disse- cussions on native religious rituals (festivals) and ob- servances of the Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief sys- tems. Concurrently scheduled with course C182. Let- ter grading.


297B. Seminar: Modern Japan. (4) Seminar, three hours. Selected topics in modern Japan. Graduate students to be assigned additional readings and write seminar papers based on research in their own disci- plinary areas. Concurrently scheduled with course C197B. Letter grading.

Korean

Lower Division Courses

1. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Ko- rean to qualify for more advanced courses. Introduc- tion to standard spoken Korean and Korean writing, with emphasis on conversation. P/NP or letter grad- ing.

2. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners who have had no instruction in the Ko- rean language. Emphasis on speaking, writing, and conver- station in modern Korean. P/NP or letter grading.

3. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 A or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

4. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 3 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

5. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 3 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

6. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

7. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

8. Elementary Korean: Intensive, (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Ko- rean to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Korean, including pro- nunciation, grammar, and Korean characters, with emphasis on all four basic language skills — speaking, listening, comprehension, and writing. Offered in summer only. Letter grading.

9. Intermediate Modern Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 3 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Modern Korean. (4-4-4) Lecture, five hours. Enforced requisite: course 6 or Korean placement test. Course 100A or Korean placement test is enforced requisite to 100B; course 100B or Korean placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to field of modern and premodern Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, lan- guage, and society. Concurrently scheduled with course C171. S/U or letter grading.

101A-101B-101C. Advanced Modern Korean. (4-4-4) Lecture, five hours. Enforced requisite: course 6 or Korean placement test. Course 101A or Korean placement test is enforced requisite to 101B; course 101B or Korean placement test is en- forced requisite to 101C. Topics selected from a variety of sources, including Korean literature, magazines, journals, and books related to humanities and social sciences. P/NP (undergraduates), S/U (graduates), or letter grading.

102A-102B-102C. Advanced Korean Conversa- tion. (4-4-4) Lecture, three hours. Enforced requisite: course 6 or Korean placement test. Course 102A or Korean placement test is enforced requisite to 102B; course 102B or Korean placement test is enforced requisite to 102C. Not open to students who attended elementary school for more than two years or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Reading and discussion of modern Korean authors, designed to further improve spoken profi- ciency. P/NP or letter grading.

105A-105B-105C. Reading Modern Korean. (4-4-4) Lecture, three hours. Enforced requisite: course 6 or Korean placement test. Course 105A or Korean placement test is enforced requisite to 105B; course 105B or Korean placement test is enforced requisite to 105C. Not open to students who attended elementary school for more than two years or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Reading and discussion of modern Korean authors, designed to further improve spoken profi- ciency. P/NP or letter grading.

106. Intermediate Korean for Korean Speakers. (5) Lecture, five hours. Enforced requisite: course 5A or Korean placement test. Not open to students who at- tended elementary school for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners. Emphasis on four skills (speaking, grammar, readings, and conver- sation in modern Korean). Analysis of texts from variety of locales, with particular emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief sys- tems. Concurrently scheduled with course C205A- C205B-C205C. P/NP or 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 the beginning to the 19th century. P/NP or letter grading.

151. Korean Literature in Translation: Modern. (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 Korean literature of the 20th century. P/NP or letter grading.


160. Korean Buddhism. (4) (Formerly numbered 186.) 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 theology, notably the introduction of Mahayana Buddhism, and independent Son (Zen) schools of Korea. Concurrently scheduled with course C260. Letter grading.

165. Introduction to Korean Buddhist Texts. (4) Lecture, two hours; reading, two hours. Requisite: Korean 100A or Chinese 110C or Korean placement test. Introduction to reading premodern Korean Buddhist texts written in Sino-Korean and taken from indigenous doxographic materials and philosophical writings, Korean Buddhist apocryphal scriptures, native exegetical commentaries, and Son (Zen) texts. Coverage varies. Texts may be read in either Sino-Korean or literary Korean. May be repeated with consent of instructor. Letter grading.


175. Introduction to Traditional Korean Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of Korean thought from the earliest records to the 19th century, including shamanism, Taoism, Buddhism, Confucianism, and neo-Confucianism. Korean traditions and those found in India, China, Japan, and the West. P/NP or letter grading.

176. Introduction to Korean Confucian Texts. (4) Lecture, three hours. Enforced requisite: course 100C or Chinese 110C or Korean placement test. Reading in premodern Korean literature 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.

177. Introduction to Modern Korean Thought. (4) Lecture, two hours; discussion, one hour. Requisite: course 50. Knowledge of Korean not required. Survey of Korean thought in the late 19th and 20th centuries, including religious thought, political thought, feminism, nationalism, and economic thinking and practice. P/NP or letter grading.


181. Reading Korean Cultural Landscape. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to Korean culture. Introduction to Korean culture from historical/geographical perspective. Examination of human cultural imprint on land in religious, linguistic, rural, and urban landscapes. Letter grading.

183. Korean Folklore. (4) (Formerly numbered M183.) Lecture, three hours. Survey of Korean folklore and its performance methods—oral literature, performing folk arts, folk social custom, and material culture. P/NP or letter grading.


190A. Seminar: Korean Literature. (4) Lecture, four hours. Knowledge of Korean not required. Readings and discussion of selected current research papers in syntax, pragmatics, discourse, and sociolinguistics from perspectives of contrastive study of Japanese and Korean. May be repeated for credit with consent of instructor. Concurrently scheduled with course CM227. Letter grading.

190A-190B-190C. Cultural History of Korea. (4-4-4) Lecture, three hours; discussion, one hour. Requisite: course 50. Knowledge of Korean not required. Examinations of key events and trends in society within context of political and institutional industry. Consideration of both higher and popular culture. P/NP or letter grading. 190A. Through 1259. 190B. 1260 through 1763. 190C. 1764-1875.

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 Korean history. Discussion of such topics as Korean capitalism and communism, intellectual history, social movements, and the Korean War.

212. 19th-Century Korea. (4) Lecture, three hours; discussion, one hour. Requisite: course 180B or 180C. Readings in early modern period of constitutional monarchy and development of traditional Korean literature, with emphasis on canon and ideology, literary systems, historical development of genres, rise of new forms, periodization, and critical issues in literary history. One particular area of focus will be a nationalist canon that governs literary studies in Korea and the West. Letter grading.

220. Structure of Korean. (4) Lecture, three hours. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently 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 and letter grading.

230A-230B. Seminars: Classical Korean Fiction. (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 grading.


Graduate Courses

200. Bibliography and Methods of Research in Korean. (4) Lecture, three hours. Requisite: course 101C, Chinese 110C. Review of basic Western and modern Korean reference books, with concentration on bibliographic nature and language, and survey of basic bibliographic tools and resources. In addition, introduction to most important primary sources in student’s field of specialization. Letter grading.

205A-C205B-C205C. Reading Korean Academic Texts. (4) Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to an advanced level, with coverage in Korean of material, and periodicals. Each course may be taken independently for credit. Concurrently scheduled with courses C105A-C105B-C105C. S/U or letter grading.

210. Thought and Society in Modern Korea. (4) Readings/ discussion, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of list of books central to field of Korean history. Discussion of such topics as Korean capitalism and communism, intellectual history, social movements, and the Korean War.


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 and letter grading.

230A-230B. Seminars: Classical Korean Fiction. (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 grading.

235A-235B. Seminars: Topics in Modern Korean Literature. (4-4) Seminar, three hours. Preparation: reading knowledge of Chinese or Japanese. Limited to graduate students. Study of a 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 grading.

South and Southeast Asian Languages and Cultures

Lower Division Courses

30. Religious Traditions in Southeast Asia. (4) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Focus on indigenous religions, beliefs and major textually based religions introduced to the region, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

40A-40B-40C. Introductory Hindi. (5-5-5) Lecture, two hours; discussion, three hours. Course 40A is enforced requisite to 40B, which is enforced requisite to 40C. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

40R. Elementary Hindi 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.

41A-41B-41C. Intermediate Hindi. (5-5-5) Lecture, two hours; discussion, three hours. Course 41A is enforced requisite to 41B, which is enforced requisite to 41C. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

50A-50B-50C. Introductory Vietnamese. (5-5-5) Lecture, two hours; discussion, three hours. Course 50A is enforced requisite to 50B, which is enforced requisite to 50C. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. Letter grading.

51A-51B-51C. Intermediate Vietnamese. (5-5-5) Lecture, two hours; discussion, three hours. Enforced requisite: course 50C. Course 51A is enforced requisite to 51B. Coverage of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. Letter grading.

60A-60B-60C. Introductory Thai. (5-5-5) Lecture, two hours; discussion, three hours. Course 60A is enforced requisite to 60B, which is enforced requisite to 60C. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. Letter grading.

61A-61B-61C. Intermediate Thai. (5-5-5) Lecture, two hours; discussion, three hours. Enforced requisite: course 60C. Course 61A is enforced requisite to 61B, which is enforced requisite to 61C. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. Letter grading.

70A-70B-70C. Introductory Filipino/Tagalog. (5-5-5) Lecture, two hours; discussion, three hours. Course 70A is enforced requisite to 70B, which is enforced requisite to 70C. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. Letter grading.

71A-71B-71C. Intermediate Filipino/Tagalog. (5-5-5) Lecture, two hours; discussion, three hours. Enforced requisite: course 70C. Course 71A is enforced requisite to 71B, which is enforced requisite to 71C. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. Letter grading.

80A-80B-80C. Introductory Indonesian. (5-5-5) Lecture, two hours; discussion, three hours. Course 80A is enforced requisite to 80B, which is enforced requisite to 80C. 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.

81A-81B-81C. Intermediate Indonesian. (5-5-5) Lecture, five hours. Enforced requisite: course 80C. Course 81A is at least one year of the Asian language. Course 81B is enforced requisite to 81C, which is enforced requisite to 81C. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competencies in Indonesian. P/NP or letter grading.

M90. Modern Literatures in Southeast Asia. (4) (Same as Comparative Literature M90.) Lecture, three hours. Knowledge of Southeast Asian literatures not required. Exploration of diversity in Southeast Asia in such areas as traditional culture, modernization, politics, and literature through modern literary texts. P/NP or letter grading.

Upper Division Courses

120. Field Methods in Asian Languages and Cultures. (3) Discussion, three hours. Recommended preparation: at least one year of the Asian language. Examination and application of methodologies to better understand language and culture acquisition by working directly with a native speaker of an Asian language. One language per term to be selected from languages spoken in Southeast Asia, South Asia, and East Asia. May be repeated for credit. P/NP or letter grading.

M120. Topics in Southeast Asian Literature. (3) (Same as Comparative Literature M175.) Lecture, three hours. Recommended: course 120. Recent scholarship regarding complex interactions between religion, state, and society in contemporary Southeast Asia. P/NP or letter grading.


152A-152B-152C. Advanced Vietnamese. (5-5-5) Lecture, five hours. Enforced requisite: course 151C. Course 152A is requisite to 152B, which is requisite to 152C. 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. P/NP or letter grading.

155. Topics in Vietnamese Cinema and/or Literature. (4) Lecture, three hours. 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.

156A. Vietnam: History and Civilization to 1808. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Vietnamese society and culture from origins to the 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.

156B. Vietnam: History and Civilization, 1858 to the 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.

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.

162A-162B-162C. Advanced Thai. (5-5-5) (Formerly numbered 82A-82B-82C.) Lecture, two hours; discussion, three hours. Requisite: course 61C. Course 162A is requisite to 162B, which is requisite to 162C. 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.

170A-170B-170C. Topics in Southeast Asian Studies. (4-4-4) Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and/or visual documents. Topics include literature, religion, folklore, cultural history, and society. P/NP or letter grading.

182A-182B-182C. Advanced Indonesian. (5-5-5) (Formerly numbered 82A-82B-82C.) Lecture, five hours. Requisite: course 182A. Course 182A is requisite to 182B, which is requisite to 182C. 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.

199. Special Studies in South and Southeast Asian Languages. (4) Tutorial, to be arranged. Independent studies course for juniors/seniors and graduate students who desire more advanced or specialized treatment of one language offered in the program beyond introductory and intermediate courses currently offered. May be repeated for credit. See academic coordinator for course contract. P/NP or letter grading.
Related Courses

Art History
114A. Early Art of India
114C. Japanese Art
114D. Later Art of India
114E. Arts of Korea
114F. Arts of Southeast Asia
C115A. Advanced Indian Art
C115B. Advanced Chinese Art
C115C. Advanced Japanese Art
C115D. Art and Material Culture, Neolithic to 210 B.C.
C115E. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906
C115F. Art and Material Culture of Late Imperial China, 906 to 1115
260A. Indian Art
260B. Chinese Art
260C. Japanese Art

Education
253C. Seminar: Asian Education

English
95A. Introduction to Poetry
140A. Criticism: History and Theory
140B. Criticism: Special Topics
201A. Criticism and Interpretation from Classical Era to the Renaissance

Ethnomusicology
91D. Music of China
91G. Music of Japan
91J. Music of Korea
C115A-115B. Music in China
157. History of Chinese Opera
158A-158B-158C. Studies in Chinese Instrumental Music
160. Survey of Music in Japan

Geography
186. Contemporary China
286. Geography of Contemporary China

History
182A-182B. Thought and Society in China
183A. Culture and Power in Late Imperial China
183B. Selected Topics in Chinese History from 1500 to 1840
184. 20th-Century China
188A. Early History of India
200L. Advanced Historiography: China
200M. Advanced Historiography: Japan
200P. Advanced Historiography: History of Religions
201L. Topics in History: China
201M. Topics in History: Japan
201P. Topics in History: History of Religions
282A-282B. Seminars: Chinese History
285A-285B. Seminars: Japanese History
293A-293B. Seminars: History of Religions

Law
278. Comparative Law: Japanese Law and Society

Linguistics
103. Introduction to General Phonetics
120A. Phonology I
120B. Syntax I
220. Linguistic Areas
225H. Linguistic Structures: Japanese
225P. Linguistic Structures: Chinese

Political Science
135.International Relations of China
136. International Relations of Japan
159A-159B. Government and Politics of China
160. Government and Politics of Japan
160. Survey of Music in Japan
C242. Chinese and East Asian Politics
C243. Japanese and Western Pacific Politics

Sociology
188. Comparative East Asian Societies before World War II
276. Selected Topics in Sociology of East Asia

East Asian Studies

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Associate Professors
William M. Bodiford, Ph.D. (East Asian Languages and Cultures)
Hung-hsiang Chou, Ph.D. (East Asian Languages and Cultures)

Adjunct Professor
John B. Duncan, Ph.D. (East Asian Languages and Cultures)
Chi-Fun Cindy Fan, Ph.D. (Geography)
Kyeoung Park, Ph.D. (Anthropology)
David C. Schaberg, Ph.D. (East Asian Languages and Cultures)
Shu-mei Shih, Ph.D. (Comparative Literature, East Asian Languages and Cultures)
Sung-Ock Sohn, Ph.D. (East Asian Languages and Cultures)
Mariko Tamanoi, Ph.D. (Anthropology)
Timothy R. Tangerlini, Ph.D. (East Asian Languages and Cultures)
Hongyun Tao (East Asian Languages and Cultures)
Michael F. Thies, Ph.D. (Political Science)
James Tong, Ph.D. (Political Science)
Yunxiang Yan, Ph.D. (Anthropology)

Assistant Professors
Michael K. Bourdagnis, Ph.D. (East Asian Languages and Cultures)
Cameron D. Campbell, Ph.D. (Sociology)
Burglind Jungmann, Ph.D. (Art History)
Hui-Shu Lee, Ph.D. (Art History)
Seiji M. Lippit, Ph.D. (East Asian Languages and Cultures)
Helen Rees, Ph.D. (Ethnomusicology)

Lecturer
Tsun Y. Lui, Emeritus (Ethnomusicology)

Scope and Objectives

East Asia is one of the most important regions of the world today with its ancient cultures, growing economies, technological progress, and increasing role in global affairs. As the focus of attention continues to shift toward Asia and the Pacific, new career opportunities open up requiring familiarity with the region. The East Asian Studies major is an interdepartmental and interdisciplinary area studies program divided into three areas of concentration — China, Japan, and Korea. Combining both social sciences and humanities approaches with language study, it is a highly flexible major that enables students to construct programs suited to a broad range of individual needs and career interests.

In addition to selecting from the large number of courses offered at UCLA, students are encouraged to participate in the Education Abroad Program (EAP) or other study abroad programs to enhance understanding of the region through direct contact with its peoples and cultures. East Asian Studies is also useful as a double major. When combined with other majors, it can add greater depth and provide a more intense focus, expanding students' range of expertise. It is suitable for those seeking further academic or professional training as well as for those who plan to enter the job market after graduation.

Undergraduate Study

East Asian Studies B.A.

Two years of language and a total of 13 upper division courses are required for graduation. Students must take a minimum of nine courses in the area of their choice. The remainder should be taken in another area of concentrat-
tion within the major. No more than eight courses may be from a single department. Students should select the courses from the lists below. Courses on East Asia not listed below, offered only on a temporary basis, may also be applied toward the major.

**China Concentration**

**Preparation for the Major**

*Required:* Chinese 1, 2, 3, 4, 5, 6, History 11A or 11B, one lower division social sciences course in an area other than history.

**Transfer Students**

To be admitted as East Asian Studies (China) majors, transfer students 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, one history of China course, and one lower division social sciences course in an area other than history.

**The Major**


**Japan Concentration**

**Preparation for the Major**

*Required:* History 9C, Japanese 1, 2, 3, 4, 5, 6, one lower division social sciences course in an area other than history.

**Transfer Students**

To be admitted as East Asian Studies (Japan) majors, transfer students 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, one history of Japan course, and one lower division social sciences course in an area other than history.

**The Major**


**Korea Concentration**

**Preparation for the Major**

*Required:* Korean 1, 2, 3, 4, 5, 6, 50, one lower division social sciences course.

**Transfer Students**

To be admitted as East Asian Studies (Korea) majors, transfer students 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, one Korean civilization course, and one lower division social sciences course.

**The Major**


**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) degree in East Asian Studies.

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**ECONOMICS**

**College of Letters and Science**

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**Professors**

Andrew G. Atkeson, Ph.D.
Costas Azariadis, Ph.D.
Moshe Buchinsky, Ph.D.
Trudy Ann Cameron, Ph.D.
Harold Linn Cole, Ph.D.
Janet Currie, Ph.D.
Sebastian Edwards, Ph.D. (Henry Ford II Professor of International Management)
Bryan C. Ellickson, Ph.D.
Roger E. Farmer, Ph.D.
Jinyong Hahn, Ph.D.
Gary D. Hansen, Ph.D.
Arnold C. Harberger, Ph.D.
V. Joseph Hotz, Ph.D.
Ekaterina Kyrilazidou, Ph.D.
Deepak K. Lal, D.Phil. (James S. Coleman Professor of International Development Studies)
Naomi R. Lamoreaux, Ph.D.
Edward E. Learner, Ph.D. (Chauncey J. Medbery Professor of Management)
David K. Levine, Ph.D.
(Laurence A. Alchian Professor of Economic Theory)
Lee E. Ohanian, Ph.D.
Joseph M. Ostroy, Ph.D.
John G. Riley, Ph.D.
Jean-Laurent Rosenthal, Ph.D.
Kenneth L. Sokoloff, Ph.D.
Duncan Thomas, Ph.D.
Earl A. Thompson, Ph.D.
Aaron Torney, Ph.D.
Carlos A. Vegh, Ph.D.
William R. Zame, Ph.D.

**Professors Emeriti**

Armen A. Alchian, Ph.D.
William R. Allen, Ph.D.
Masanao Aoki, Ph.D.
John F. Barron, Ph.D.
Robert W. Clower, D.Litt.
Harold Demsetz, Ph.D.
George W. Hilton, Ph.D.
Werner Z. Hirsch, Ph.D.
Jack Hirshleifer, Ph.D.
Michael D. Intriligator, Ph.D.
Benjamin Klein, Ph.D.
Axel Leijonhufvud, Ph.D.
George S. Murphy, Ph.D.
Finis R. Welch, Ph.D.

**Associate Professors**

Kathleen M. McGarry, Ph.D.
Sule Ozler, Ph.D.

**Assistant Professors**

Daniel A. Ackerberg, Ph.D.
Alberto Bennardino, Ph.D.
Ariel Bernstein
Sandra Black, Ph.D.
Hongbin Cai, Ph.D.
Paul J. Devereux, Ph.D.
Matthias Doepke, Ph.D.
Patrik Guggenberger
Christian Hellwig, Ph.D.
Keisuke Hirano, Ph.D.
Amarthy Lahiri, Ph.D.
Luisa Lambertini, Ph.D.
Enrico Moretti, Ph.D.
Ichiro Obara, Ph.D.
Klaus Martin Schneider, Ph.D.
Oleg Tsyvinski
Leela Yavil, Ph.D.

**V. Joseph Hotz, Ph.D., Chair**

Janet Currie, Ph.D., Vice Chair
Lee Ohanian, Ph.D., Vice Chair

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**Scope and Objectives**

The 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 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 Ph.D. degree. The doctorate is awarded to those students who have achieved the level of study and training required for a professional economist. The degree recognizes students’ ability to make scholarly contributions in their fields of specialization and to undertake advanced research in those areas.

Undergraduate Study

Economics B.A.

Admission
Application for the major should be filed at the undergraduate counselors office in 2263 Bunche Hall. To apply, students must have completed at least 72 quarter units (but no more than 137 quarter units), one 12-unit term in residence in regular session at UCLA, and all courses listed under Preparation for the Major. In addition, they must be enrolled in UCLA regular session at the time of application.

Prebusiness Economics Major

While students are completing the lower division preparation courses for the major, they may be classified as Prebusiness economics majors.

Preparation for the Major

Required: Economics 1, 2, 11, Statistics 11; one College of Letters and Science Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E. All courses must be taken for a letter grade. A 2.0 (C) grade is required in each major 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 results in automatic denial of admission to the major.

Transfer Students

To be admitted as Economics majors, transfer students 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 statistics course, and one English critical reading and writing course. Beginning in Fall Quarter 2004, transfer students will be required to take Statistics 11 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

The Major

Required: Nine upper division courses in economics which must include Economics 101, 102, and one course from at least three different fields in economics selected from the major fields list below. All courses must be taken for a letter grade. Economics 100, 110, and 190 may not be included among the nine upper division courses. One or two of the nine courses may be selected from Management 120A, 120B, 130A, 130B.

To graduate, students must have at least a 2.0 grade-point average in their upper division major course, with grades of C– or better in Economics 101 and 102. Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Major Fields

Economic theory (courses 101, 102, 106P, 107, M188A through 188Z); economic development (courses 111, 112); regional economics (course 120); public finance (courses 130, 133, 134A, 134B, M135, M136); statistics, mathematical economics, and econometrics (courses 103, 141A, 141B, 141C, 142, 143, 144, 145, 146, 147A, 147B, 148); labor economics (courses 150, 151, 152); money and banking (courses 160, 161); government and industry (courses 170, 171, 172, 174); economic institutions (courses 166H, 180, 181A, 181B, 183); international economics (courses 191, 192).

Economics B.A./Applied Economics M.S. Dual Program

An intercampus dual degree program has been established between UCLA and UC Santa Cruz which allows students to obtain a B.A. in Economics from UCLA and an M.S. in Applied Economics from UC Santa Cruz in five years. Consult the economics undergraduate counselor for additional information.

Business Economics B.A.

The B.A. 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 137 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).

Prebusiness Economics Major

While students are completing the preparation courses for the major, they may be classified as Prebusiness Economics majors. (Transfer students who wish to enter UCLA as Prebusiness Economics majors must meet the admission screening requirements. For information, contact the Office of Undergraduate Admissions and Relations with Schools.)

Preparation for the Major

Required: Economics 1, 2, 11, 101, Statistics 11; one College of Letters and Science Writing II course or English Composition 129B; Management 1A, 1B; Mathematics 31A, and 31B or 31E. All courses must be taken for a letter grade.

Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students

To be admitted as Business Economics majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: two microeconomics courses, two macroeconomics courses, two calculus courses from the mathematics/physical sciences sequence, one statistics course, one English critical reading and writing course, one elementary financial ac-
counting course, and one elementary managerial accounting course.

Beginning in Fall Quarter 2004, transfer students will be required to take Statistics 11 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval.

The Major

**Required:** Economics 102, 103, and at least two courses from 106E through 106H, 106P, 174; three other upper division courses in economics in at least two different fields (Economics 100, 110, and 190 may not be included as electives); four upper division courses from Management 108, 120A, 120B, 122, 123, 124, 126, 127A, 127B, 130A, 130B, 140. Transfer credit for any of the major courses is subject to department approval. Consult an undergraduate counselor before enrolling in any courses for the major.

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.) All upper division major courses must be taken for a letter grade.

Economics/International Area Studies B.A.

The B.A. program is for students who wish to attain specialized knowledge of a particular geographical area in addition to the economics analysis provided by the major. It should be useful to those who plan careers in international business or government service. The department encourages participation in the University of California Education Abroad Program or other recognized international study programs. Experience in foreign firms or institutions would be an advantage but yields no academic unit credit toward the major.

Admission

Qualified students must apply for the major through the undergraduate counselors office in 2263 Bunche Hall. To apply, students must have completed at least 72 quarter units (but no more than 137 units), one 12-unit term in residence in regular session at UCLA, and all courses listed under Preparation for the Major (except for the second year of foreign language). In addition, they must be enrolled in UCLA regular session at the time of application. All courses must be completed for a letter grade. A minimum 2.0 (C) grade is required in each premajor course, with a combined 3.0 GPA in the economics and mathematics courses. Students must also have a 2.0 (C) grade-point average in their upper division courses taken for the major before applying. Language course preparation need not be completed at the time of admission but must be completed before preparing the research paper required in Economics 193. The program as a whole must be approved by an Economics Department counselor before students are admitted to the major.

Preeconomics/International Area Studies Major

While students are completing the preparation courses for the major, they may be classified as Preeconomics/International Area Studies majors.

Preparation for the Major

**Required:** Economics 1, 2, 11, 101, 102, Statistics 11; Mathematics 31A, and 31B or 31E. Students also must complete at least the first year (or equivalent) of the two required years of a modern foreign language which is spoken in the geographical area of their major concentration.

Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students

To be admitted as Economics/International Area Studies majors, transfer students 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 statistics course, and two years of a modern foreign language related to the geographical concentration.

Beginning in Fall Quarter 2004, transfer students will be required to take Statistics 11 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

**The Major**

**Required:** A total of 12 upper division courses selected from economics and the approved noneconomics courses listed below for the concentration. Eight economics courses are required, including Economics 103, 191, 192, 193, and four economics courses from at least two different fields (selected from the major fields listed under the Economics major). Economics 101 and 102 (which are required for the premajor) cannot be used to satisfy this requirement; Economics 100, 110, and 190 may not be included as electives. The four remaining upper division courses are social sciences courses related to the concentration and must be chosen from the approved courses listed below. Students are required to include selections from at least two different departments. Economics 193 must be completed in the last year before graduation and includes the preparation of a research paper on the economy of the country or region of the concentration. In addition, students must show two-year proficiency (or equivalent) in a modern foreign language related to their concentration. The non-economics courses, the research paper, and the language learned must show consistency of purpose.

One or two courses from Management 120A, 120B, 130A, 130B may be substituted for one or two of the economics electives.

To graduate, students must achieve a minimum 2.0 grade-point average for both economics and noneconomics courses, with a grade of C– or better in each course. All major courses must be taken for a letter grade.

**Major Concentrations**

When students declare the major, they must also select a concentration that includes a geographical area where the foreign language they have taken is spoken. They must complete four of the approved noneconomics courses listed, including courses from at least two different departments. Students may not use courses that are not on their concentration list unless they have petitioned and received approval in advance. Consult an undergraduate counselor in 2263 Bunche Hall about the petition process.

**East Asia**

Languages: Chinese, Japanese, Korean


**Europe**

Languages: French, German, Italian, Portuguese, Spanish


**Latin America**

Languages: Portuguese, Spanish


**Middle East**

Languages: Arabic, Hebrew, Persian, Turkish

Approved Noneconomics Courses: Geography 187, History 106C, 107, 108, Jewish Studies 142, Political Science 132A, 157, Sociology 187, Turkish Languages 180

**Former Soviet Union**

Languages: Armenian, Russian

Graduate Degrees
The Department of Economics offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Economics.

Economics
Lower Division Courses
1. Principles of Economics. (4) Lecture, three hours; discussion, one hour. Open to students with credit for 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 the price system.

2. Principles of Economics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Open to students with credit for 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.

5. Introductory Economics. (4) Lecture, three hours. Open to students with credit for course 1, 2, or 100. Principles of economics as tools of analysis. Presentation of a set of concepts with which to analyze a wide range of social problems that economic theory illuminates. May not be used to fulfill entrance requirements for any Economics Department major.

11. Microeconomics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, one course from Mathematics 31B, 31BH, 31E, 32A. Laws of demand, supply, returns, and costs; price and output determination in different market situations.

Upper Division Courses
100. Economic Principles and Problems. (4) Lecture, three hours. Designed for juniors/seniors. Open to students with credit for course 1, 2, or 5. Principles of economics with application to current economic problems. May not be used to fulfill entrance requirements for any Economics Department major.


106E. Economics of Entrepreneurship. (4) Lecture, three hours. Requisite: course 101. Enrollment priority to Business Economics 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.


106G. Introduction to Game Theory. (4) Lecture, three hours; discussion, one to two hours (when scheduled). Requisite: course 101. 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, business, and other real-life situations. Letter grading.

106H. Enterprise, Technology, and Entrepreneurship in American Economic History. (4) (Formerly numbered 184.) Lecture, three hours. Requisite: course 101. Enrollment priority to Business Economics majors. Not open for credit to students with credit for former course 184. Study of role of innovation in history of American enterprise. Examination of specific episodes of salient entrepreneurial innovation, as well as general theoretical and empirical treatments. Letter grading.

106P. Pricing and Strategy. (4) (Formerly numbered 104.) Lecture, three hours. Requisite: course 101. Enrollment priority to Business Economics majors. Not open for credit to students with credit for former course 104. Advanced pricing topics typically include linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Letter grading.

107. History of Economic Theory. (4) Lecture, three hours. Requisite: course 1 or 100. Survey of economic analysis from Grecian antiquity to the early 20th century, concentrating on the 18th and 19th centuries; special attention to selected writers, including Aristotle, mercantilists, Physiocrats, Hume, Smith, Malthus, Ricardo, Marx, marginalists, and Marshall.

110. Economic Problems of Underdeveloped Countries. (4) Lecture, three hours. Requisite: course 1 or 100. Limited to non-Economics Department majors. Not open for credit to students with credit for course 111 or 112. Survey of major issues of development economics. Economic structure of low-income countries and primary causes for their limited economic growth. Economic goals and policy alternatives open to the role of developed countries. May not be applied toward any Economics Department major.

111. Theories of Economic Growth and Development. (4) Lecture, three hours. Requisite: course 110. Growth models; theory of production under constraints, relative factor prices and their impact on choice of technology, investment criteria, role of the market, economic planning in less developed areas.

120. 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 an urban setting. Topics include urbanization and urban growth, equity and inequality, location decisions of households and firms, transportation, urban labor markets, and local public sector.


133. State and Local Finance. (4) Lecture, three hours. Requisites: courses 101, 130. Division of functions and revenues between state and local governments; revenues, expenditures, and indebtedness of these governments. Analyses of state and local tax systems.

134A. Environmental Economics. (4) Formerly numbered 133A. Lecture, three hours; discussion/quiz, one hour. Requisites: courses 11, 101. Application of economic theory to natural and environmental resources problems. Topics include sustainability and natural resource scarcity; steady-state models for renewable resources (land and water, fisheries, forests), externalities and pollution (including use of incentives for pollution control), and nonrenewable resources (minerals). P/NP or letter grading.

134B. Economics of Environmental Regulation. (4) Lecture, three hours; discussion, one hour. Requisite: course 134A. Social choice theory, efficiency and markets, public bads and externalities, property rights, Pigouvian fees, marketable permits, legal solutions, risk and uncertainty, international and interregional competition, economy-wide effects of environmental regulations, and formal environmental demand theory. P/NP or letter grading.

M135. Economic Models of Public Choice. (4) (Same as Political Science M105.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: any lower division political science course. Enforced requisite: course 11. Designed for juniors/seniors. Analysis of methods and consequences of arriving at collective decisions through political mechanisms. Topics include free-rider problem, voting and majority choice, demand revelation, and political bargaining.


141A. Mathematical Finance A. (4) Lecture, three hours; computer laboratory, one hour. Requisite: course 114A. Capital asset pricing model, multiperiod discrete-time models, efficient market model, efficient markets, dynamic spanning and market completeness, mathematical models of options, futures, and derivatives. P/NP or letter grading.

141B. Mathematical Finance B. (4) Lecture, three hours; computer laboratory, one hour. Requisite: course 141A. Model of asset pricing model, multiperiod discrete-time model, efficient market model, efficient market, dynamic spanning and market completeness, mathematical models of options, futures, and derivatives. P/NP or letter grading.

141C. Mathematical Finance C. (4) Lecture, three hours; computer laboratory, one hour. Requisite: course 141B. Models of term structure of interest rates, interest rate derivatives, optimal consumption and investment. Equity premium puzzle, bubbles. P/NP or letter grading.

142. Probabilistic Microeconomics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 103. Not open to students with credit for course 147A or 147B. Estimation and inference in multiple regression model; violations of assumptions of classical model (heteroskedasticity, unobserved heterogeneity, measurement error); introduction to limited dependent variable and time-series models. Emphasis on applications of regression analysis and interpretation of results.

143. Applied Regression Analysis. (4) Lecture, three hours. Requisite: course 103. Not open to students with credit for course 147A or 147B. Estimation and inference in multiple regression model; violations of assumptions of classical model (heteroskedasticity, unobserved heterogeneity, measurement error); introduction to limited dependent variable and time-series models. Emphasis on applications of regression analysis and interpretation of results.

144. Introduction to Mathematical Methods in Economics. (4) Lecture, three hours. Requisite: course 101. Introduction to use of mathematics in economic analysis. Topics include: fundamentals of differentiation, optimization, integrals, and differential and difference equations, with applications to theory of the household and the firm, capital theory, and economic dynamics.

145. Topics in Mathematical Economics. (4) Lecture, three hours. Requisites: courses 101, 144. Possible topics include game theory; competitive equilibrium analysis; examination of market failure and role for market intervention. P/NP or letter grading.

146. Linear Models in Economics. (4) Lecture, three hours. Preparation: one or linear matrix algebra course. Not open for credit to students with credit for Mathematics 164 or Electrical Engineering 136. Possible topics include duality theory of linear programming and simple algorithm, input/output analysis, and two-person zero-sum games.

147A. Introduction to Econometric Theory. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 103. Mathematics 115A. Introduction to econometric theory using linear algebra; estimation and inference in classical regression, generalized classical regression model, introduction to simultaneous equations models. Emphasis on theoretical analysis and computer programming skills. P/NP or letter grading.

147B. Applications of Econometrics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 147A. Econometric models and data; forecasting, policy analysis, estimation of simultaneous equations models, applications of econometrics. Major original econometric paper required.

148. Introductory System Theory. (4) Lecture, three hours. Requisites: Mathematics 33A, 33B. Introduction to modeling and analysis of dynamic systems, with emphasis on examples from social and life sciences. Linearity, nonlinearity, stability, state variables, algorithms for filtering and control.


152. Trade Unions and Professional Associations. (4) Lecture, three hours. Comparative behavior of unions and professional associations; criteria for wage maximization; quantification of gains; analysis of legal framework applying to such organizations.

M158. International Political Economy of Work and Gender. (4) (Same as Women's Studies M123.) Lecture, three hours. Requisite: course 1 or 5 or 100. Analysis of women's lives in world economy by taking account of interdependencies between household and market activities and between economic systems and legal and political institutions. Introduction of alternative theories in social sciences; presentation of empirical evidence. Letter grading.


161. Monetary Theory. (4) Lecture, three hours. Requisite: course 102. Principles of money and monetary exchange; level and term structure of interest rates; level and growth rate of money; transmission of monetary shocks; theory and practice of monetary policy.


171. Industrial Organization and Tactics. (4) Lecture, three hours. Requisite: course 11. Study of pricing and output decisions of firms under conditions of less than perfect competition or monopoly; theories of oligopoly and monopolistic competition; information costs and advertising; examination of pricing practices such as price discrimination, tie-in selling, predatory pricing, and resale price maintenance.


M188A. Political and Economic Issues in Proliferation of Nuclear Weapons (Formerly numbered M103A.) (Same as Political Science M139A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Interdisciplinary approach to problem of nuclear proliferation. Economic aspects of acquisition of nuclear weapons and economic aspects of nuclear energy treating technological, bargaining, and stability issues. Letter grading.

188B. Economics of Energy. (4) Formerly numbered 103B.) Seminar, three hours. Requisite: course 102. Topics include pricing and taxation of exhaustible resources, interactions between energy and the economy, institutions such as OPEC and oil price controls, oil debt and balance of payments, energy conservation, and future technologies. Letter grading.

188C-1882. Upper Division Research Seminars: Applications of Economic Theory. (4 each) (Formerly numbered 186A-186Z) Seminar, three hours. Requisite: course 11. Limited enrollment seminars in which students usually write a research paper on a topic selected in consultation with instructor. P/NP or letter grading.

190. International Economics. (4) Lecture, three hours. Requisites: course 1 or 100. Limited to non-Economics Department majors. Not open to students with credit for course 190. General introduction to international economics, based on examination of theory of trade and the means and significance of balance of payments adjustments, with analysis of major issues of international commercial and monetary policy confronting national and international agencies. May not be applied toward any Economics Department major.


192. International Finance. (4) Lecture, three hours; discussion, one hour. Requisite: course 102. Not open to students with credit for course 190. Emphasis on interpretation of the balance of payments and adjustment to national and international equilibrium through changes in private levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary standards, capital movements, exchange controls, and international monetary organization. P/NP or letter grading.


195HA. Honors Thesis Seminar I. (4) (Formerly numbered 195H.) Seminar, three hours; Requisites: courses 11, 101, 102. Limited to senior departmental honors program students. First quarter of two-quarter sequence in which students do research and write thesis on economics issues for departmental honors. Letter grading.


199. Special Studies in Economics. (4) Tutorial, to be arranged. Requisites: courses 11, 101, 102. Limited to juniors/seniors. May be repeated twice but may be applied only once toward the major requirements.

199L. Independent Studies for Internships. (2, 4, or 6) Tutorial, to be arranged. Requisites: courses 11, 101. Limited to Economics, Business Economics, Economics/International Area Studies, and Mathematics/Economics majors. Independent studies course to be supervised by Center for Experiential Education and Service Learning and Economics Department. Further supervision to be provided by business or entity for which student is doing internship. May not be applied toward major requirements. May be repeated for a maximum of 8 units. P/NP grading.

Graduate Courses

Foundations of Economics

200. Mathematical Methods in Economics. (4) Lecture, three hours. Should be taken prior to enrollment in course 201A. Examination of mathematical methods used in graduate-level courses in microeconomics, macroeconomics, and quantitative methods. Topics include real analysis, linear algebra and matrices, calculus of many variables, static optimization, convex analysis, and dynamics and dynamic optimization, S/U grading.

201A-201B-201C. Microeconomics. (4-4-4) Lecture, three hours. S/U or letter grading.


204A-204Z. Applications of Economic Theory. (4 each) Lecture, three hours.

M204A-M204B-M204N. Seminars: Pharmaceutical Economics and Policy. (1-1-2) (Same as Health Services M204A-M204B-M204C.) Seminar, three hours every other week for three terms. Requisites: courses 201A, 201B, 201C. Health Services M236. Limited to graduate public health and economics students. Various topics in pharmaceutical economics, including rates of innovation, drug regulation, and economic impact of pharmaceuticals. In Progress and 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 the 1870s, including contributions of major figures of the marginalist revolution, the socialist controversy, and history of welfare economics. S/U or letter grading.

Economic Theory

211A-211B. Economics of Uncertainty, Information, and Games. (4-4) Lecture, three hours. Preparation: introductory probability. Requisite: course 201C. Theory of individual decision making under uncertainty, applied to topics such as asset pricing models, adverse selection, moral hazard, bargaining, signaling, auctions, and search. S/U or letter grading.

212A-212Z. Topics in Advanced Theory. (4 each) Lecture, three hours. Current research in microeconomic theory. Content varies. Courses in this sequence not ordinarily available prior to completing course 201A. May be repeated for credit. S/U or letter grading.


212B. Applied Game Theory. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and oligopoly. Use of theory of mechanisms to study auction design and imperfectly competitive markets.

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. Preparation: course 213B. Generalized linear and non-linear models 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. Requisite: course 201C. Core convergence theorem, cooperative and noncooperative approach to competitive equilibrium theory, perfectly competitive equilibria, the no-surplus condition, and applications to mechanism theory and incomplete market models.
Monetary Economics

221A-221D. Monetary Economics I to IV. (4 (each))
Lecture, three hours. S/U or letter grading.
221B. Emphasis on theoretical, historical, and policy aspects of monetary economics. Financial intermediation, bank panics, asset price volatility, game theoretic models of policy, inflation, implication of monopsonistic competition, political coordination failures, central bank operations, and evolution of monetary institutions.


221D. Requisites: courses 202A, 202B, 202C. Emphasis on applied macroeconomics, with topic change each year. Students select a particular data set to study. Each week class studies an article from recent work in applied macroeconomics or applied econometrics which teaches a technique or suggests a theoretical restriction on the data. Subgroups of students report back at the class using the technique on their selected data set.

222A-222Z. Topics in Monetary Economics. (4 (each))
Lecture, three hours. Current research in monetary economics. Content varies. May be repeated for credit. S/U or letter grading.

222A-222B-222C. Proseminars: Monetary Economics. (4-4-4) Seminar, three hours. Workshops for predissertation and dissertation writers. Literature surveys or research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper or presentation required. S/U grading.

222A-229B-229C. Monetary Econometrics. (4-4-4) Lecture, three hours. Workshops for predissertation and dissertation writers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper required. S/U grading.

Also see Management 200 (game theory and information economics), 203B (decision theory), 203B (economics of information).

Public Finance

251A. Theory and Policy of Taxation. (4) Lecture, three hours. Examination of influence of taxation on economic efficiency and incidence of taxation in first part of course. Topics include tax equivalences, Ramsey 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. Requisite: course 251A. Presentation of those aspects of applied capital theory that are relevant in decisions concerning investment projects in first part of course. Differences between social and private benefits and costs (shadow prices) for foreign exchange, capital, and labor, with applications to public investment decisions, in second part of course. S/U or letter grading.

252. Economics of Federalism. (4) Lecture, three hours. Theories of perfect games and social organization. Role of government, collective goods, collective defense, local public goods, spillovers, and intergovernmental relations. S/U or letter grading.


254A-254B-254C. Workshops: Public Economics. (4-4-4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress discussed by graduate students, UCLA faculty members, visiting experts. S/U grading.

Labor Economics

261A-261B. Labor Economics I, II. (4-4) Lecture, three hours. S/U or letter grading.


261B. Requisite: course 261A. Models of life-cycle learning and work behavior, with particular emphasis on recent literature examining labor force behavior and experience of women.

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.

268A-268B-268C. Proseminars: Labor and Population. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers working on empirical issues in areas of labor and population, broadly defined. Presentation of work-in-progress or background material for proposed thesis topics, to be discussed and critiqued by faculty and fellow students. Presentation or research paper required. S/U grading.

269A-269B-269C. Workshops: Labor Economics. (4-4-4) Lecture, three hours. Workshops for predissertation and dissertation writers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper required. S/U grading.

Industrial Organization


271A. Major economic aspects of property rights systems. The firm and the market from perspective of alternative arrangements for allocating resources. Traditional problems of competition, monopoly, and industrial concentration. Brief analysis of those portions of antitrust policy bearing on industrial structure.
Development Economics


286B. Cost-Benefit Analysis of Development Projects. (4) Lecture, three hours. Requisite: course 286A. Methodology for evaluating investment projects, with special attention to types of issues that arise in developing countries. Discussion of social versus private evaluation criteria; applications to high-way, 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. Recent economic history of East Asia, focusing on postwar development of Japan, Korea, and China. Emphasis on role of international investment and trade, especially with the U.S., in area's economic development.

287C. Topics in Economic Development. Designed for graduate students. Topics in monopoly and exchange rate policy in developing countries. Students expected to develop analytical tools and underlying policy issues.

288A-288B-288C. Prosessimars: Asset Pricing. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on empirical issues in asset pricing, broadly defined. Presentation of work-in-progress or background material for proposed dissertation topics which are discussed and criticized by faculty members and fellow students.

Urban Economics


Special Studies

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

495. Teaching College Economics. (2) Seminar, one hour; laboratory, three hours. Designed for graduate students. May be repeated for credit.

596. Individual Study. (2 to 8) Directed individual study or research. S/U grading.


E D U C A T I O N

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Noreen M. Webb, Ph.D., Vice Chair

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Eva L. Baker, Ed.D.
James E. Bruno, Ph.D.
James S. Cattanell, Ph.D.
Arthur M. Cohen, Ph.D.
Sol Cohen, Ph.D.
Aimée Dorr, Ph.D., Dean
Adjunct Associate Professors
Diane Durkin, Ph.D.
Philip Ender, Ph.D.
Linda P. Rose, Ph.D.

Adjunct Assistant Professor
Bruce Barbe, Ed.D.

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 Ph.D., an Ed.D., a master’s degree, or a services or instructional credential, they graduate with a broad understanding of educational theory and tested practice.

Undergraduate Study
For information on the special certificate program through which students may waive the Multiple Subject Assessment for Teachers (MSAT) in California, see the Diversified Liberal Arts Program (DLAP) and contact a DLAP counselor in the College of Letters and Science, A316 Murphy Hall, (310) 206-6681.

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) help understand the complex interactions between the legal, social, political, and economic forces which influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education either as teachers or researchers, and (4) provide 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 32 units 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, http://www.gseis.ucla.edu/edmini/default.html. Applicants are expected to have a real commitment to inquiry into issues vital to education.

Required Upper Division Courses (28 units):
Two policy and issues courses from Education 190, 192A through 192E, 193A through 193F, 194A, 194B, 194C.

Students with a 3.0 grade-point average may, after acceptance of a separate application, also select a concentration in advanced studies by taking Education 197X and 199 in addition to the course requirements for the minor.

All minor courses 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, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Education, Master of Education (M.Ed.) degree, Doctor of Education (Ed.D.) degree, and Doctor of Philosophy (Ph.D.) degree in Special Education (with California State University, Los Angeles).

One articulated degree program (Education M.Ed./Latin American Studies M.A.) and one concurrent degree program (Education M.Ed., M.A., Ed.D., or Ph.D./Law J.D.) are also offered.

Education
Lower Division Courses
10. Introduction to Humanities, Social Sciences, and Scientific Inquiry. (4) Lecture, 30 hours; laboratory, eight hours. Introduction to range of critical concepts in humanities, social sciences, and hard sciences. Use of multicultural texts that represent variety of genres and disciplines to develop critical reading and writing skills. Development of scientific inquiry skills relevant to study of mathematics and science in medical professions. Weekly compositions, critical thinking journals, and participation in laboratory experiments. Application of these concepts to critical issues facing migrant farmworker communities and similar groups throughout state and country, with focus on issues such as identity, language, culture, and central social, health, and educational issues facing Latino community. Offered in summer only. P/NP or letter grading.

98. Critical Issues in Education. (4) Lecture, 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 a particular issue of interest, learn about social sciences research, and conduct mini-research projects. May be repeated for credit. Letter grading.
Upper Division Courses


M108. Sociology of Education. (4) (Same as Sociology M175.) Requisite: Sociology 1. Study of social processes and interaction patterns in educational organization, and educational and behavioral aspects of society, social class, and power; social relations within school, college, and university; and formal and informal groups, subcultures in educational systems; roles of teachers, students, and administrators. Fieldwork may be required.


125A. Exceptional Educational Individuals. (4) Requisite: Psychology 10. Production to the field of special education, with emphasis on psychology of individual differences, learning characteristics of exceptional individuals, and application of research and theory to special education remediation systems.

140. Time and Behavior in Educational Organizations. (4) Designed for juniors/seniors. Overview of role that time plays in understanding behavior in school and social organizations, with specific emphasis on understanding, management of change, and exploration of behavioral issues such as gang membership, middle crisis, school reform, teacher burnout, and student at-risk behaviors.

M148B. Women and Higher Education. (4) (Same as Women's Studies M148.) Lecture, three hours. Designed for juniors/seniors. Education and career development of women in higher education. Specifically, emphasis on undergraduate and graduate women; women faculty and administrators; curricula, programs, and counseling services designed to enhance women's educational and career development, affirmative action, and other recent legislation. P/NP or letter grading.

152. Policy Analysis and Real Politics of Education. (3) Lecture, 90 minutes; discussion, 90 minutes. Exploration of relationship between scholarly policy analysis and implementation of policy systems involving decision-making or implementing who is a high-level policy official. Selected topics include achievement standards and assessment, school finance, equal access to education, and school reform. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Women's Studies CM178.) Lecture, three hours; laboratory, one hour. Use of range of pedagogical approaches to theory and practice of critical media literacy, that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278. Letter grading.

180. Social Psychology of Higher Education. (4) Overview of significant studies in social psychology of higher education. Focus on institutional characteristics and students’ interpersonal and intrapersonal processes, with special emphasis on identifying and explaining effects of college experience on student development and achievement.


181C. Perspectives on the American College. (4) Lecture, four hours. Examination of historical conditions that define our college and consequent differential characteristics, trends, and practices that bear on dynamics and impacts of contemporary colleges. Emphasis on interrelated sociopolitical, social, and policy issues underlying diverse system of American higher education. Letter grading.


183A. Contextual Leadership for Education and Community Service. (4) Conceptual, case study, and experiential investigation of leadership within the higher education environments and the community. Investigation of how context and environment influence leaders, what leadership effectiveness means, and how to become effective leaders and role models.

183B. Problem Solving for Leadership and Change. (4) Study of concepts and tools that contribute to creative problem solving and its relationship to leadership and change, drawing from both life and social sciences disciplines as well as professional studies of education and related fields.

183C. Strengths-Based Learning. (4) Conceptual analysis of theories that point to improved learning and academic success. Hull and scientific research that has emerged from cognitive psychology provide context. Practical applications of theory through classroom activities and experiential assignments.

190. Community Service Learning for Academic Achievement. (4) Lecture, four hours. Must be taken prior to or concurrently with courses 193A through 193F. Emphasis on cognitive learning and motivation theories and their relevance to strategies for developing curricular instructional techniques and training that contribute to tutoring, counseling, and other instructional assistance in various school settings. Letter grading.


191B. Issues in Education: Historical Perspective. (4) Lecture, three hours; discussion, one hour. Exploration of such controversial issues in American education as access, diversity, parental choice, cultural literacy, teacher empowerment, and role of popular media in historical perspective.

C191C. Economics of Education. (4) Introductory course in microeconomic and macroeconomic techniques applied to education. Methodologies illustrated as related in context of current issues in American education. Concurrently scheduled with course C244.

C191D. Politics of Education. (4) Political dimensions of education institutions as organizations. Relationships between politics and administration institutions in society. Political theory as a foundation for public policy analysis; interest groups in education policy formation and implementation. Concurrently scheduled with seminar C191E.


191F. Educational Psychology. (4) Broad overview of educational psychology, with examination of relationship of teaching and learning; various perspectives in how children learning and learning that arise based on child’s social class, ethnic background, gender, age, and level of ability.

191G. Adolescent Psychosocial Development: Problem and Potential. (4) Emphasis on developmental stage involving construction of personal identity, a narrative dialogical mental structure underlying meaning and direction, life choices, and integrity and values. Critical prevention approaches to youth deviance and dysfunction.


192A. Theory and Practice of Teaching and Learning Function. (4) Lecture, three hours. Requisite: course 192C. In the first part of the course, students learn about the theoretical foundation of teaching and learning practice in light of research on student characteristics, learning environments, student/instructor interaction, and outcomes of instruction. Application of theory and research to practice.


192C. Dynamics of Peer Teaching. (4) Proficiency in learning principles and procedures relevant to peer teaching in a variety of circumstances provided. Preparation and analysis of naturalistic data using concepts developed through readings and discussion.

192E. Evaluation of Peer Teaching. (4) Requisite: course 192D. Continuation of course 192D. Survey of issues in bilingualism and language assessment, study of language, linguistic competence/proficiency, biliteracy, review of current language assessment instruments. Preparation and analysis of naturalistic data using concepts developed through readings and discussion.

193A-193F. Community Service Outreach for Academic Achievement. (4 each) Discussion, two hours; fieldwork, four hours. Focus on developing a community outreach project. Course 190. Focus on service areas treated in general fashion in course 190. Concentration on theory and practice pertaining to outreach, tutoring, counseling, and various K-12 internships. Each course may be repeated for a maximum of 24 units. Letter grading.

193A. Learning in Community Service (LNCS); 193B. Community-Based Outreach Programs (CBO); 193C. American Community Service; 193E. Peer Counseling; 193F. Teaching Internship (UES).

193X-193Y-193Z. High School Advising Program. (4-4-4) For course 193X, lecture, two hours; discussion, two hours; fieldwork, two hours. For course 193Y, discussion, two hours; fieldwork, five hours. Service learning courses designed to provide students with information and techniques sufficient to allow them to undertake and participate in academic advising in low socioeconomic high schools. Letter grading.

194A. Language, Literacy, and Human Development. (6 to 8) Lecture, three hours; laboratory, two hours (for course C257); field practicum, two hours. Provides opportunities to combine theory and practice in study of human development in educational contexts. Use of ethnographic methods to document learning. Focus on relationship between theories of development, culture, and language. May be taken independently for credit. Letter grading.
200A. Historical Research and Writing. (4) Methods of historical research and writing for students who are or who will be engaged in research and in report or paper or thesis writing, regardless of their field of interest.


200C. Analysis of Survey Data in Education. (4) Lecture, three hours; laboratory, two hours. Requisite: course 200B. Introduction to techniques of processing and analyzing nonexperimental and quasi-experimental quantitative data.

201C. History of American Education. (4) (Same as History M204.) History of educational thought and of social forces impacting on American education from the 18th century to the present. Analysis of relation between these ideas and forces, and aims and practices of American education today.

202. Evaluation Theory. (4) Prevalent evaluation theories, systems for categorizing these theories, and process of theory development in educational evaluation.

203. Educational Anthropology. (4) Recommended preparation: Anthropology 9. Study of education through research and method of the cultural anthropologist. Interdependence of culture and education, with emphasis on cross-cultural studies of enculturation, schooling, values, cognition, language, and cultural change. Concurrently scheduled with course C191E.

204A. Introduction to Education and the Social Sciences. (4) Interdisciplinary course intended to introduce students to study of educational issues, tests, and movements of thought through social sciences and comparative perspectives.

204B. Introduction to Comparative Education. (4) Examination of conceptual and methodological questions of social forces impacting on education. Particular attention to development of the field and to styles of social analysis which may be applied to comparative and cross-national studies in education.

204C. Education and National Development. (4) Designed for graduate students. Analysis of various social sciences perspectives and methodologies (including modernization, dependency, Marxian, 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 the world.

204D. Minority Education in Cross-Cultural Perspective. (4) 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.

204E. International Efforts in Education. (4) Designed for graduate students. Critical analysis of complex world of “development cooperation,” with particular reference to bilateral and multilateral efforts in education.

204F. Nonformal Education in Comparative Perspective. (4) Comparative and international study of organized and systematic educational activity for children, youth, and adults outside of schools. Types of programs include, among others, consciousness raising, community action, skills training, literacy, and extension programs.

205. Computers in the Educational Process. (4) 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.

206A. Philosophy of Education: Introduction. (4) Systematic introduction to the field, indicating ways in which philosophy serves to elucidate educational aims, content, methods, and values.

206C. Introduction to Conceptual Analysis. (4) Conceptual analysis of recurrent and contemporary themes in the field. Emphasis on development of logical and linguistic skills used in analysis of educational problems and issues.

206D. Philosophy of Education: Ethics and Values. (4) Study of ethics and value theory in teaching and learning, educational organization and policy, and curriculum design and evaluation. Concurrently scheduled with course C191A.

207. Politics of Education. (4) Preparation: one approved research methods course required for master’s or doctoral degree. Political dimensions of education institutions as organized groups. Relationships between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation. Concurrently scheduled with course C191D.

208A. Perspectives on the Sociology of Education. (4) Sociological perspectives on current issues in educational policy and practice with emphasis on de-segregation, decentralization, equality of educational opportunity, structure of educational organization, teacher/student relationships, reform in education at elementary, secondary, and higher levels.

208C. Explanation in the 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.

209A. History of Higher Education. (4) Examination of development of postsecondary education in the U.S., with attention to social context and to scope and variety of institutions.

209C. Problems in Research and Evaluation in Higher Education. (4) Critical review of research and evaluation studies of higher education, with special attention to need for synergistic programs and problems, and to design and methodology of evaluative research.

209D. System of Higher Education. (4) Analysis of structure and function of American postsecondary education from systems perspective. Emphasis on structure of system and comparative characteristics (faculties, student bodies, finances, outputs) of different types of institutions.

210. Education as a Profession: Theory, Research, and Practice. (4) (Formerly numbered 210A.) 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. Letter grading.

211A. Measurement in Education: Underlying Theory. (4) (Formerly numbered 211B.) Lecture, four hours. Measurement theory as applied to testing, focusing primarily on classical test theory; implications of theories for test construction and selection; current status of validity and reliability theory. S/U or letter grading.

211B. Item Response Theory. (4) (Formerly numbered 211C.) Lecture, four hours. Requisites: courses 211A, 230C. Item response theory, applications to educational achievement tests, item bias, test information, test equating, computerized adaptive testing. S/U or letter grading.

212A. Learning and Education. (4) Models of learning, modeling, reinforcement, motivation, encoding, memory, transfer, individual differences, and instruction.


212C. Cognition and Creativity in Education. (4) Requisite: course 212A. Review of theoretical and empirical literature on cognitive processes in school learning, including knowledge acquisition, comprehension, metacognition, and creativity.

213C. Group Counseling Theory and Process. (4) Lecture, three hours; discussion, one hour. Requisite: course 414A. Group productivity, leadership in groups, social perception, attitude formation, and effect of behavior changes in individuals and groups. Evaluation of social, psychological, and educational principles related to therapeutic experiences of individuals in small groups. Letter grading.

218. Measurement of Educational Achievement and Aptitude. (4) (Formerly numbered 211A.) Lecture, four hours. Requisite: course 230A. Critical study of tests of achievement and aptitude, with emphasis on group tests; relation of achievement to aptitude; social implications of measurement of intelligence; elements of validity and reliability. S/U or letter grading.

219. Laboratory: Advanced Topics in Research Methodology. (4) Provides assistance in design of research and interpretation of data to advanced students in the construction of specific topics not included in other courses on research methods.

220A. Inquiry into Schooling: Organization and Change. (4) Critical analysis of issues in reconstructions of schooling; concepts of function and structure of schooling; organization theory; systems approaches in analysis of organization development and change.


221. Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 209C (section 1), 230A. Designed to develop conceptual and technical skills needed for designing and executing empirical research utilizing statistical packages. Each student conducts two original studies. Equal emphasis on techniques of data analysis and interpretation of results. S/U or letter grading.

222A. Introduction to Qualitative Methods and Design Issues in Educational Research. (4) Formerly numbered M222A.) Lecture, three hours; discussion, one hour. Introductory course for students interested in epistemology, theories, and styles of qualitative research in educational, social, and psychological research; critical issues of 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. First of two courses on participant-observation field methods. Key skills (e.g., observation, recording, interviewing, role management, data storage) learned through classroom lectures and simulations, and by conducting actual field-based research project. Letter grading.

222C. Qualitative Data Reduction and Analysis. (4) Lecture, two hours; discussion, two hours. Requisite: course 222B. Extension of fieldwork project started in course 222B, with focus on practical skills and conceptual/methodological issues involved in reducing and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry: Special Topics. (4) Lecture, four hours. Special topics course on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnographic writing and/or multimedia design, discourse analysis, and microethnography of social interaction. S/U or letter grading.

223. Aesthetics and the Curriculum. (4) Lecture, two hours; discussion, two hours. Examination of various ideas and philosophies of educational philosophy and application of these in school contexts.

224. Problems and Issues in Bilingual and Multicultural Education. (4) Introduction to development and implementation of bilingual and multicultural programs in the U.S. Analysis of program goals, models, typologies, and effectiveness.

225A. Issues in Education of Exceptional Individuals. (4) Designed for graduate students. Analysis of major research regarding contemporary trends, issues, and programs for the exceptional; consideration of commonalities and differences among exceptional individuals.

225B. Advanced Issues in Education of Exceptional Individuals. (4) Synthesis of developmental and educational theory relevant to study of exceptional students, including consideration of historical context of current research and applied issues in special education.

226. Seminar: Special Topics in Writing, Rhetoric, and Educational Methodology. (4) Special topics seminar on writing in education that could focus on history of writing about education, social and political dimensions of it, its variation by discipline, and its uses in professional and public contexts.

227A. Research on Learning Characteristics of Exceptional Individuals. (4) Requisite: course 225B. Review of research regarding learning characteristics of exceptional individuals and discussion of application of this work to educational practice.

227B. Research on Cognitive and Language Characteristics of Exceptional Individuals. (4) Requisite: course 227A. Review of research regarding cognitive and language characteristics of exceptional individuals and discussion of application of this work to educational practice.

227C. Research on Behavioral and Social Characteristics of Exceptional Individuals. (4) Requisite: course 227B. Analysis of social and emotional development of exceptional individuals and development of social competence in special education programs.

228. Observation Methods and Longitudinal Studies. (4) Lecture, two hours; discussion, two hours. Requisite: course 230A. Design of observational and longitudinal studies. Formulation of study conclusions concerning influences on children's development. Conduct of observations; processing and analysis of data. Use of portable computers for recording observations. S/U or letter grading.

229. Seminar: Special Topics in Urban Schooling. (4) 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.


231C. Analysis of Categorical and Other Nonnormal Data. (4) Requisites: courses 230B, 230C. Regression analysis with dichotomous and polytomous dependent variables, log-linear modeling, coefficients of association for categorical variables, factor analysis, and structural equation modeling.


232. Instructional Analysis. (4) Theoretical and empirical analysis of instructional variables as they relate to diverse types of instructional strategies. Development of skill in techniques of conducting instructional research.

233A. Professional Writing in Education. (4) Designed for first- and second-year doctoral students and intended to assist in professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and methodology. Letter grading.

233B. Professional Writing in Education. (4) Designed for students at proposal or dissertation stage, intended to assist in professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and methodology. Letter grading.

234. Education and Social Stratification. (4) Relationship between education and components of social stratification, including occupations and earnings. Competing theories used in studying education and social stratification. Relevant research. Conclusions regarding individual career decisions, social policies, and theories of society.

235. Theory and Practice of Leadership. (4) Discussion, four hours. Review of theory and practice of leadership within different organizational contexts, with special focus on higher education. Variety of questions addressed, including what is leadership, differences between leadership and management, role of leadership in institutional transformation. Letter grading.


237. Law and Urban Education. (4) Lecture, four hours. Examination of recent legal controversies that may impact ability of urban educators to meet needs of students in a multicultural society. Emphasis on equity-related issues as desegregation, school finance, standardized testing, and rights of language minority students. Letter grading.


239. Organization and Governance of Educational Systems. (4) Academic organizations, precollege and postsecondary, are most appropriately studied as complex, professionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relations, governance structures, processes, and patterns of decision making and policy-making.


241. Research Methodology in School Administration. (4) Examination of research problems and strategies in school administration.


244. Economics of Education. (4) Introductory course in microeconomic and macroeconomic techniques applied to education. Methodologies illustrated principally in context of current issues in American education. Concurrently scheduled with course C191C.


246A. Decision Analysis and Advanced Computer Methods for Educational Policy and Planning. (4) Requisite: course 242. How information technology and decision analysis impact K-12 schooling, higher education, and technical training/workplace settings. With research paper, oral presentation, and two research briefs, students can pursue decision analysis areas of special interest to their professional and career objectives.

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.

249B. Seminar: Institutional Research and Program Evaluation. (4) Critical review of institutional evaluation studies, with consideration of scope of information needed for various purposes and problems of integrating this information to appraise overall institutional functioning and effectiveness.

250A. Organizations and Systems of Higher Education. (4) Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute the division, with emphasis on underlying social and political issues that shape higher education and organization. Letter grading.

250B. Topical Issues in Higher Education. (4) Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute the division, with emphasis on underlying social and political issues that shape higher education and organizational change.

250C. Theoretical Frameworks of Higher Education. (4) Designed for graduate students. Review 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.


251D. Seminar: Philosophy of Education, Problems in Ethics and Values. (4) Requisite: course C206D.


252A. Seminar: Educational Organizations. (4) Requisite: course 208A.

252B. Seminar: Education and Social Change. (4) Requisite: course 208A.

252C. Seminar: Human Resources and Economic Development. (4) (Same as Community Health Sciences M251.) Lecture, four hours. Examination, in context of developing countries, of relationships among economic development, population growth, levels of health and nutritional status, and educational investments. S/U or letter grading.


253B. Seminar: African Education. (4) 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.


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) Multidisciplinary and comparative study of socialist educational theorists examined through writings of Marx, Lenin, Mao, and others. Implementation of this theory in specific case studies, along with comparative assessments of nonsocialist nations.


253H. Seminar: Chicano/Hispanic and Education. (4) Seminar, four hours. S/U or letter grading.


256B. Seminar: Special Topics in Development. (4) Seminar, four hours. S/U or letter grading.

257. Seminar: Research in Counseling Psychology. (4) In-depth analysis of selected research approaches/areas in counseling psychology.

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.

259A. Seminar: Research on Characteristics of Students. (4) Analysis of concepts, methodology, and conclusions or implications underlying and resulting from major research on student characteristics. Emphasis on differential impact of higher education on student and faculty development.


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 reshaped by institutions of higher education, with focus specifically on student experiences, curriculum, institutional climate, educational policies, and administrative practices. Letter grading.

261F. Seminar: Cognitive and Personal Development of College Students. (4) Examination of cognitive development of college students; issues of personal and social development, including leadership, and interpersonal relations and skills.

262A. Seminar: Reading. (4) Seminar, four hours. 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.

262J. Entrepreneurial Leadership and Education: Seminar for Education and Business Leaders. (4) Seminar, two hours; discussion, two hours. Seminar for education and business leaders to explore concepts and processes of becoming entrepreneurial leaders through study of educational challenges by internalizing and applying skills and thinking used by successful entrepreneurs. Letter grading.


264. Seminar: Teacher Education. (4) Research, issues, and problems 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.

265. Higher Education Policy. (4) Requisites: courses 250A, 250B. Understanding public policy for higher education requires understanding of both issues and policy process. Review of major topics on which the U.S. government is active, as well as key actors and their influence.

266. Feminist Theory and Social Sciences Research. (4) 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, a distinctive critical theory methodology now widely used in social sciences.


268. Theorizing Reading: Rhetorics of Academic Discourse. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to gender studies, exploration of various 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).

269. 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 a goal of cultural studies. Letter grading.

270. Case Study Research in Education Policy and Practice. (4) 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.

271. Seminar: Educational Psychology. (2 to 6) Lecture, two hours; discussion, two hours. Seminar, four hours. S/U or letter grading.

271A. Proseminar: Educational Psychology. (2) Introduction to a variety of research issues in the field of educational psychology, including topics related to human development, computer-assisted instruction, counseling, and special education, and to different methodological approaches used to study them. S/U grading.


273A. Structure and Dynamics of Educational System. (4) Lecture, two hours; discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American education as an institutional system wherein federal, state, and local policy, school administration, curriculum theory and design, and teaching are inextricably connected in the delivery of education.

273B. Social Foundations of Education. (4) Core course for graduate students in the field of education. Focus on research and policy issues in American education, with emphasis on the social, cultural, and political context of educational policy. Letter grading.


276. Contemporary Theories of Writing. (4) Review of current theories of writing in literacy research and examination of relationships among writing and literacy, culture, and human development. In particular, examination of history of writing research over last three decades as part of a broader intellectual history.
293. Teaching Studies: Research and Theory into Practice. (4) Exploration of historical, theoretical, and empirical perspectives into teaching and teacher education, providing graduate students with broad overview of relevant literature and current issues shaping teaching profession in the U.S.

296A-296F. Seminars: Research Topics in Education. (3, 2, 2, 4, 3, 2, 2) Seminar, three hours. Advanced study and analysis of current topics in education. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296G. Research Topics in Education: Organizational Theory. (2) Seminar, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.

299A-299B-299C. Research Practicum: Education. (4 to 8 each) May be repeated for credit.

300. Dissertation Writing Workshop: Interdivisional Seminar. (4) Seminar, one hour; discussion, two hours; laboratory, one hour. Limited enrollment. Introduction for doctoral candidates to dissertation writing as a genre that can be analyzed or broken down with its constituent parts and, vice versa, which is constructed out of materials that can be identified and analyzed. S/U grading.

301. Introduction to Information and Presentation Tools. (1) Laboratory, one hour. Limited to credential program students. Sequence of laboratory sessions providing preservice teachers with introduction to education technology infrastructure and classroom presentation tools. Introduction to resources and services, e-mail functions and Internet, and presentation software and multimedia elements. S/U grading.

305. Health Education and Teaching. (4) Lecture, four hours. Limited to Teacher Education Program students. Teaching/learning process as applied to personal and community health. Topics include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of state’s health framework. S/U grading.

309. Methodologies for English Language Learners. (4) Laboratory, two hours. Limited to credential program students specializing in bilingual and English language learners. Discussion of competencies needed by all content area teachers of English language, including strategies for teaching in and through English. Topics include educational issues, organizational approaches, and communicative approaches; strategies and activities. Letter grading.

310. Professional Communication for Graduate Students in Education. (2) Writing workshop on students’ papers in progress to ensure professional standards. Analysis and group discussion of rhetorical and stylistic principles. May be repeated once. S/U grading.

311. Principles and Methods of Computer Literacy and Classroom Application — K-12. (2) Lecture, one hour; laboratory, 30 minutes. Introduction to use of computers in educational environment. Discussion of issues of news release into a wide and extensive database and many educational uses, building sites, organizational processes, and communicative environments. Letter grading.

312. Basic Principles of Curriculum and Instruction. (4) Analysis of basic principles and concepts for planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of a variety of instructional strategies and their application in elementary and secondary schools.


315A-315B. Principles and Methods for Teaching Reading for Multiple Subject Instruction. (2-2) Course 315A is requisite to 315B. Reading instruction in elementary school can help students solve problems and programs; study of relationships between language/culture/cognition and reading. Examination and development of instructional programs; analysis and practice of alternative instructional methods. Observation and participation in schools. S/U grading.


318A-318B-318C. Principles and Methods for Multiple Subject Instruction. (2-2-2) Lecture, two hours; laboratory, one hour. Examination and development of instructional programs; analysis and practice of alternative instructional methods. Focus on subjects commonly taught in elementary schools. S/U grading.


330A. Observation and Participation. (2 to 6) Site-based fieldwork, 10 to 15 hours. Students are assigned to school sites with racially, culturally, and linguistically diverse student populations. Throughout observation and participation period, students analyze effective strategies for achieving learning for all students, including sociocultural approaches and appropriate use of educational technology. S/U grading.

330B-330C. Student Teaching. (4-6) Site-based fieldwork, 40 and 60 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relationships. Increased daily responsibilities in course 330C. S/U grading.

330D. Classroom Residency and Teaching. (8) Site-based fieldwork, 10 to 15 hours. Students are employed by local school districts to teach as residents in school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through the Teacher Education Program to initiate a change project in their local school and/or complete a case study on the project. S/U grading.

330E-360B-360C. Novice Seminars. (2-2-2) Seminar, two hours. Analysis of basic principles and concepts of planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of constructivist strategies and their application in elementary and secondary schools. Examination of different types of instructional programs; analysis and research on teacher subject matter. Students conduct ethnographic inquiry of the local community of their designated demonstration school. S/U grading.

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

400. Foundations of Education Policy Analysis. (4) Principles of decision making and policy formulation, implementation, and analysis in context of the educational system. Topics include effectiveness and equity of educational delivery systems and programs, and complex nature of educational governance in contemporary America.

401. Structure and Function of Schools as Complex Organizations. (4) Critical analysis of alternative assumptions about organizations, how they function, and why people in organizations behave as they do. Application to special circumstances of schools and to contemporary issues and problems in school leadership, improvement, and reform.


404A-405B-405C. Teaching in Urban Schools. (2-2-2) Lecture, two hours. Limited to credential program students. Participatory courses that explore issues of identity development, positionality, and development as a teacher for urban school populations; issues and sociocultural realities of diverse student populations; and examination of urban school communities, their identities, and ways of understanding and interacting. Each course may be taken independently for credit. Letter grading. 405A. Cultural Identity; 405B. Diverse Perspectives; 405C. Community Action.

406A-406B-406C. Social Foundations and Cultural Diversity in American Education. (2-2-2) Intensive consideration of American society, particularly its racial and cultural diversity. Topics include historical development of American society, manifestations of cultures, and ways to learn about students’ cultures. Examination of issues of racism, ethnic and gender differences, perspectives of cultural diversity, and impact on educational and classroom instruction.


408A-408U. Language and Culture. (2 each) Lecture, two hours. Exploration of complex nature of culture and impact of cultural diversity in urban classroom through class discussions, activities, and reflective expression, allowing novice teachers to understand and participate in rich cultural diversity of urban Los Angeles. By exploring culture as tool and target for increasing understanding of multicultural diversity, teachers may construct meaningful connections to students, communities, and home cultures. Each course may be taken independently for credit. Letter grading. 408B. Latino/Latina Emphasis; 408C. Asian American Emphasis; 408D. African American Emphasis. 408U. General Topics.

409. Language Structure, Acquisition, and Development. (4) Lecture, four hours. Limited to credential program students. Theoretical foundations of language structure and language acquisition, with focus on major themes of current research that provide a framework for schooling of English language learners. Rationale for bilingual/English language acquisition and development programs. Historical and current theories and models of language. Letter grading.
(4-4) Two-course sequence providing overview of higher education and K-12. Design to develop knowledge, understanding, and sensitivity to contemporary critical and emerging issues that impact higher education, with focus on both theory and practice. Study of relationships between issues in K-12 schooling and higher education. 410B. Exploration of issues that effect both higher education and K-12 schooling, including restructuring and reform, standards, access and accountability, and new technologies. Emphasis on both theory and practice.

411. Procedural Issues in Evaluation. (4) Formerly numbered 411B. Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluations, development of program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

413A. Methodology for Primary Language Instruction. (3) Lecture, two hours; discussion, one hour. Offered and required for Spanish and Korean BCLAD credential. Consideration of models for developing cultural competence of home speakers of language of emphasis; practice in use of activities to develop student ability to use language for real-world and academic purposes in culturally appropriate ways. Consideration of strategies for teaching academic content in primary language for delivery of core curriculum to bilingual students. Letter grading.

413B. Culture of Emphasis. (3) Lecture, two hours; discussion, one hour. Offered and required for Spanish and Korean BCLAD credential. Conducted in Spanish and Korean. Discussion of commonalities of culture of emphasis in its home country or countries; major historical periods and events; values, belief systems, and expectations; migration and immigration; historical and contemporary demography. Letter grading.

413C. Language and Culture: BCLAD Emphasis. (2) Formerly numbered 403B. Lecture, two hours. Limited to credential program students. Offered and required for Spanish BCLAD credential. Exploration of complex nature of culture and impact of cultural diversity in urban classroom through class discussions, activities, and reflective expression. By exploring culture as tool and target for increasing understanding of multicultural diversity, teachers may construct meaningful content for students, communities, and home cultures. May be taken independently for credit. Letter grading.

414A. Student Affairs Practice and Theory. (4) Lecture, two hours; discussion, two hours. Examination of role of student affairs services in serving students, parents, communities, and home cultures. May be taken independently as a team member and as individuals. Letter grading.

414B. Legal and Ethical Issues in Student Affairs. (4) (Formerly numbered 213B.) Lecture, two hours; discussion, two hours. Examination of legal and ethical issues that affect student affairs practices in higher education. Letter grading.

414C. Advanced Counseling Theory and Practice. (4) (Formerly numbered 214B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Overview of intervention and prevention strategies for student affairs professionals, with emphasis on campus-as-community concept with crisis theory as a model, providing conceptual model for understanding counseling role of student affairs in higher education. Letter grading.

414D. Career Development and Interventions in Colleges. (4) (Formerly numbered 214D.) Lecture, two hours; discussion, one hour; laboratory, one hour. Examination of challenges faced by college students of all ages in preparing for careers in a dynamic multicultural world and interventions for assisting them. Emphasis on understanding development and evaluation of interventions. Letter grading.

414E. Administration of Student Affairs. (4) Overview of general knowledge and processes essential to effectively administer a program or service under student affairs. Consideration of environmental factors and strategies for governing, planning, and managing student affairs programs and services.

415A. Assessment in Counseling Psychology. (4) Requisites: courses 211A, 230A. Overview of rationale for and procedures used by counseling psychologists for assessing individuals in a multicultural society. Consideration of common program instruments and specialized techniques for diagnosis, evaluation, and development of counseling strategies for at-risk populations. S/U or letter grading.

415B. Advanced Assessment in Counseling Psychology. (4) Requisite: course 415A. Advanced course in assessment for counseling psychologists. Survey and demonstration of instruments of achievement, affective, and personality appraisal, with emphasis on testing and interplay between assessment and psychological functioning for reducing risks of failure in academic, personal, and social areas.

420A. Principles of Curriculum. (4) Critical examination of basic concepts underlying determination of objectives, selection of content, and planning of learning experiences, and evaluation process.

421A. Programs and Research in Early Childhood Education. (4) Preparation: one course from development of curriculum and instruction in early childhood education, including review of relation of research in developmental psychology and education to goals of early childhood education and daycare.

421D. Parents and Community Agents in Child Development. (4) Preparation: one course from development series. Critical review of theoretical basis and effectiveness of training programs for parents of young and elementary school-aged children; relation of preschool parent programs to family development and role of programs in the community.


422. Inquiry into Schooling: Basic Issues. (4) Critical examination of basic issues and problems in organization and reorganization of schooling. Consideration of historical development and changing functions of schooling in American society; school organization; schooling alternatives; problems in management of educational change.


424A. Social Studies in the Curriculum. (4) 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.

424B. Reading in the Curriculum. (4) Requisites: course 430A. Survey and study of instructional strategies with emphasis on practical applications of reading research.

424C. Curriculum Design for Bilingual Education. (4) 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; development of instructional components; program evaluation.


431A. Administration in Higher Education. (4) Overview of college and university administration and introduction to policy research and analysis in postsecondary institutions. Case studies of administrative practices, policies, and practices. Management of information systems, resource allocation, and issues related to responsibility, authority, and participation in administrative decisions.


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 instructional media. Design and development of prototype educational media applications, integration plans for established, or experimental educational media into formal learning settings, or evaluations of specific learning environments. Letter grading.

440C. Administration of the Instructional Program. (4) Examination of current educational problems in society and strategies of their solution through curriculum policy and practice; instructional design and operation; in-service training of teaching staffs.

441A. Instructional Supervision A. (4) 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.

441B. Instructional Supervision B. (4) Requisite: course 441A. Basic techniques of script-taping in instructional design; applications and generalizations through analysis of script-tapes, conducting and analyzing growth-evoking teacher conferences. Conducting mini-lessons to demonstrate elements of good instruction.

442B. Legal Aspects of Educational Management and Practice. (4) Examination of structures and kinds of law governing educational systems in the U.S.; constitutional dimensions of church/state relations; employees’ civil rights and legal aspects of hiring, firing, and negotiating procedures; student attendance, control, and civil rights.

443. Policy Analysis in Education. (4) Overview of political, economic, and social context of educational policy formation. Included in examination are issues that impact on minorities (e.g., bilingual education, desegregation, affirmative action, role of subnational and supranational governing process).

444B. Equality of Educational Opportunity through Desegregation and Finance Case Law. (4) Requisite: course 442B. Concentrated review of definition of equality of educational opportunity as it is being developed by the courts in cases concerning desegregation and educational finance.

447. Seminar: Educational Policy and Planning, Special Studies. (1 to 4) S/U or letter grading.
448A. Urban School Leadership. (4) Analysis of problems of urban school leadership. Emphasis on changing nature of the urban school, with considerable attention to role of other schools and community agencies that interact with the urban school leader.

448B. Urban Leadership Laboratory. (4) Analysis of and opportunity to practice human and technical skills requisite for success as an urban school leader. Topics include negotiations, conflict resolution, applied computer technology, and effective communication. Activities include gaming, simulation, computer programming, and group dynamics.

450A. Leadership Capacity Building. (4) Lecture, one hour; discussion, one hour; small group work, one hour. Limited to Educational Leadership Program students. Course taken in year one of Educational Leadership Program to help students with their communication and leadership capacities. Letter grading.

450B. Leadership Capacity Building. (4) Lecture, one hour; discussion, one hour; small group work, one hour. Limited to Educational Leadership Program students. Course taken in year three of Educational Leadership Program to help students with their communication and leadership capacities. 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 perceptions of leadership and organizational theory, with application of these concepts to student professional work settings. Letter grading.

452A-452B. Educational Enterprise. (4-4) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education. Letter grading. 452A. Focus on purposes of education governance, finance, access, and equity. 452B. Requisite: course 452A. Focus on educational environments, organizations, and curriculum and instruction.

453. Technology in Education: Learning and Leading with Technology. (2) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Examination of roles of technology in educational institutions and leadership issues associated with these roles. Letter grading.

454. Introduction to Action Research. (2) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of action research, including diagnosis forming partnerships, gathering and analyzing data, and design of interventions. Letter grading.

455A-455B-455C. Education, Inquiry, and Writing. (2-2-2) Discussion, one hour; laboratory, one hour; lecture/workshop, eight hours per month. Limited to Educational Leadership Program students. 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 change. Letter 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.


460. Seminar: Special Issues in Evaluation. (4) Topics and instructors vary each term. Recent emphases included evaluation utilization and cost-effective evaluation.

462. Seminar: Community College. (4) Topics include problems and practices in community college formation, instruction, student flow, administration, and/or evaluation.

470A. Seminar: Large Systems and Individual Schools. (4) Seminar, four hours. S/U or letter grading.


481. Knowledge and Inquiry in the Classroom. (4) Logical features of instruction and their application to inquiry techniques in teaching and learning. Various conceptions of truth, belief, and fact and opinion, and the application to classroom learning situations.

485. Instructional Strategies in Education. (4) Methods for academic instruction, including research and active participation in the adversary approach, forms of debate, role playing, interaction process analysis, and feedback instruments. Practical emphasis on social sciences and humanities instruction. K-12.

490A. Instructional Decision Making. (4) 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.

491. Curricular Decision Making. (4) (Formerly numbered 491A-491B.) Lecture, two hours; discussion, two hours. Examination of alternative solutions for practical problems that classroom teachers face in making curricular decisions. Analysis of influences of psychological, societal, and institutional factors in curricular decisions. Letter grading.


495A-495B-495C. Resident Seminars. (6-6-6) Seminar, four hours; site-based fieldwork, two hours. Students meet in individual sessions with instructors and other field support faculty and in team and cluster cohorts for university-school partnership, in addition to regular seminars to debrief field experiences and continue study of curriculum, instruction, and assessment issues. Research opportunities, additional methods in content areas for CLAD/BCLAD, and preparation of M.Ed. portfolio and for M.Ed. defense included. Letter grading.

498A-498B-498C. Directed Field Experience. (2 to 8 each) Clinic, to be arranged. Field experiences designed to increase understanding of student fields of study. S/U or letter grading.

499A-499B-499C. Advanced Directed Field Experience. (4 to 8 each) May be repeated for credit.

501. Cooperative Program in Special Education. (2-1-0) Preparation: consent of UCLA academic advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to UCLA doctoral students in special education. Used to record enrollment in practicum courses taken under cooperative arrangements with USC. S/U grading.


Electrical Engineering

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Lei He, Ph.D.
Jack W. Judy, Ph.D.
Yuanxun (Ethan) Wang, Ph.D.
C.-K Ken Yang, Ph.D.

Adjunct Professors
Nicolaos G. Alexopoulos, Ph.D.
Donald Arnauh, Ph.D.
Giorgio Franceschetti, Ph.D.
Paul T. Grelling, Ph.D.
Brian H. Kolner, Ph.D.
Neville G. Luhrmann, Jr., Ph.D.
Joel Schulman, Ph.D.
Piotr Y. Ufimtsev, Ph.D.

Adjunct Associate Professors
Bijan Houshmand, Ph.D.
Kenneth W. Iffit, Ph.D.

Adjunct Assistant Professors
Charles Chien, Ph.D.
Robert J. Greenberg, Ph.D.

Scope and Objectives
The Electrical Engineering Department emphasizes teaching and research in the fields of communications and telecommunications, control systems, electromagnetics, engineering optimization/operations research, integrated circuits and systems, photonics and optoelectronics, plasma electronics, signal processing, and solid-state electronics. In each of these fields, the department has state-of-the-art research programs exploring exciting new concepts and developments. Undergraduate students receive a B.S. degree in Electrical Engineering. Graduate research and training programs leading to the M.S. and Ph.D. degrees are also offered.

Laboratories are available for research in the following areas: analog and digital electronics, VLSI circuits, integrated semiconductor devices, microwave and millimeter wave electronics, solid-state electronics, fiber optics, lasers and quantum electronics, and plasma electronics. The department is associated with the Center for High-Frequency Electronics and the Plasma Science and Technology Institute, two research centers at UCLA.

Undergraduate Study
Electrical Engineering B.S.
The ABET-accredited electrical engineering curriculum gives an excellent background for either graduate study or employment. The two main objectives are to provide (1) a deep and fundamental education in electrical engineering as well as in basic sciences and mathematics and (2) specialized education in one branch of electrical engineering so that students develop expertise in it.

The Major
Course requirements are as follows (190 minimum units required):

1. One engineering breadth course from Materials Science and Engineering 14, Mechanical and Aerospace Engineering 102, 103, M105A (or Chemical Engineering M105A)

2. Electrical Engineering 10, M16 (or Computer Science M51A), 101, 102, 103, 110, 110L, 113, 115A, 115AL, 121B, 131A, 132A, 141, 161, 172, Mathematics 113 or 132, Mechanical and Aerospace Engineering 192A

3. Any five major field elective courses selected from those offered by the Electrical Engineering Department, including at minimum 4 units of laboratories and one design course. With approval of the adviser, two may be selected from courses related to electrical engineering in other departments

4. Chemistry and Biochemistry 20A, 20B, 20L; Computer Science 31, 32; Electrical Engineering 1, 2; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details. Electrical Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements

Biomedical Engineering Option
Course requirements are as follows (201 minimum units required):


2. Life Sciences 1 (satisfies HSSEAS GE life sciences requirement), 2, 3

3. Three technical electives, including one course selected from Electrical Engineering 115B, 115C, 142, 172; the remaining two courses may be selected from the above list and/or from Biomedical Engineering C101, CM102, CM103, Computer Science M196B, CM196L, Electrical Engineering 176

4. Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL; Computer Science 31; Electrical Engineering 1, 2; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details. Electrical Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements

Computer Engineering Option
Course requirements are as follows (190 minimum units required):

1. One engineering breadth course from Materials Science and Engineering 14, Mechanical and Aerospace Engineering 102, 103, M105A (or Chemical Engineering M105A)

2. Computer Science 111, 180, Electrical Engineering 10, M16 (or Computer Science M51A), 101, 102, 103, 110, 110L, 113, 115A, 115AL, 115C, M116C (or Computer Science M151B), M116D (or Computer Science M152B), M116L (or Computer Science M152A), 121B, 131A, Mathematics 113 or 132, Mechanical and Aerospace Engineering 192A

3. Four technical elective courses, one of which must be Electrical Engineering 132A or either Computer Science 118 or Electrical Engineering 132B. The remaining three courses must be upper division electrical engineering or computer science courses, and at least three of the four must be from the Electrical Engineering Department

4. Chemistry and Biochemistry 20A; Computer Science 31, 32, 33; Electrical Engineering 1, 2; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details. Electrical Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 194 or 195, which may be applied toward either the humanities or social sciences section of the GE requirements

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Electrical Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Electrical Engineering.
Electric Engineering

Lower Division Courses

1. Electrical Engineering Physics I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 32A, 32B, Physics 1A, 1B. Introduction to modern physics and electromagnetism with an engineering orientation. Emphasis on mathematical tools necessary to express and solve Maxwell equations. Relation of these concepts to waves propagating in free space, including dielectrics and optical systems. Letter grading.

2. Physics for Electrical Engineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 1. Introduction to modern physics necessary to understand solid-state devices, including elementary quantum theory, Fermi energies, and concept of electrons in solids. Derivation of electrical properties of holes and junctions. Letter grading.


Upper Division Courses

100. Electrical and Electronic Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course 1 or Physics 1C, Mathematics 33A, 33B. Electrical quantities, linear circuit elements, steady-state sinusoidal steady-state and transient analysis, network functions, poles and zeros, root locus and frequency response. Letter grading.


103. Applied Numerical Computing. (4) Lecture, three hours; discussion, one hour; outside study, 11 hours. Requisites: course 5C or Computer Science 31 or Civil Engineering 15 or Mechanical and Aerospace Engineering 20, Mathematics 33B. Introduction to numerical analysis and computing techniques: root finding, matrix computations for systems of linear equations, systems of nonlinear equations, numerical methods for ordinary differential equations, least squares, eigenvalue/eigenvector problem, applications to engineering problems. Letter grading.

110. Circuit Analysis II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 10. Corequisite: course 102. Sinusoidal excitation and phasors, AC steady state analysis, AC steady state power, network functions, poles and zeros, response frequency, mutual inductance, ideal transformer, application of Laplace transforms to circuit analysis. Letter grading.

110L. Circuit Measurements Laboratory. (2) Laboratory, four hours; outside study, two hours. Requisite: course 10 or 100. Experiments with basic circuits containing resistors, capacitors, inductors, and op-amps. Ohm’s law, voltage and current division, Thevenin and Norton equivalent circuits, first half of course; design techniques for image processing systems. Letter grading.


113L. Digital Signal Processing Laboratory. (2) Laboratory, four hours; outside study, two hours. Requisite: course 113. Recommended: Computer Science M151B. Real-time implementation of digital signal processing algorithms on digital processor chips. Experiments involving A/D and D/A conversion, aliasing, digital filtering, sinusoidal oscillators, Fourier transforms, and finite wordlength effects. Letter grading.

114D. Speech and Image Processing Systems Design. (4) (Formerly numbered 114.) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Requisite: course 113. Design principles of speech and image processing systems. Speech production, analysis, and modeling in first half of course; design techniques for image enhancement, filtering, and compression in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.


115AL. Analog Electronics Laboratory I. (2) Laboratory, four hours; outside study, two hours. Requisites: courses 110L, 115A. Experimental determination of device characteristics, resistive diode circuits, single-stage amplifiers, compound transistor stages, effect of feedback on single-stage amplifiers. Letter grading.


115BL. Analog Electronics Laboratory II. (4) Laboratory, four hours; outside study, eight hours. Requisites: courses 115A, 115B, Experimental and computer studies of multistage, wideband, tuned, and power amplifiers, and multiloop feedback amplifiers. Introduction to thick film hybrid techniques. Construction of amplifier using hybrid thick film techniques. Letter grading.

115C. Digital Electronic Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course 115A, Computer Science M51A. Recommended: Computer Science M116A, Transistor-level digital circuit analysis and design. Modern logic families (TTL, ECL, NMOS, CMOS), integrated circuit (IC) layout, MSI digital circuits (flipflops, registers, counters, PLAs, etc.), computer-aided simulation of digital circuits. Letter grading.


116B. VLSI System Design. (4) Lecture, three hours; discussion, one hour; laboratory, four hours; outside study, four hours. Requisites: courses M116, 115C, and 113L or M116D. Familiarity with digital circuit, logic design, and computer architecture assumed. VLSI design from a systems perspective, with focus on (1) core VLSI architecture concepts such as datapath design, clocking, power, speed, area tradeoff, input/output, packaging, etc. and (2) behavioral, register-transfer, logic, and physical-level structured VLSI design using CAD tools and hardware description languages such as VHDL. Letter grading.

116C. Computer Systems Architecture. (4) (Same as Computer Science M151B.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M16 or Computer Science M51A, Computer Science 33. Recommended: course M116L or Computer Science M152A, Computer Science 111. Computer system organization and design, implementation of CPU datapath and control, instruction set design, memory hierarchy (caches, main memory, virtual memory) organization and management, input/output subsystems (buffers, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.

116D. Digital Design Project Laboratory. (4) (Same as Computer Science M152B.) Laboratory, four hours; discussion, two hours; outside study, six hours. Requisite: course M116C or Computer Science M151B. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., processors, special-purpose processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. Letter grading.

M116L. Introductory Digital Design Laboratory. (2) (Same as Computer Science M152A.) Laboratory, four hours; outside study, two hours. Requisite: course M16 or Computer Science M51A. Hands-on design, implementation, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic, design projects. Letter grading.

121A. Physical Principles of Semiconductor Devices. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course 2 or Physics 1C, Materials Science 14. Introduction to physics of semiconductors; survey of equilibrium and nonequilibrium electronic processes in semiconductors; principles of operation and design of p-n junction devices. Fabrication of semiconductor devices. Letter grading.
121B. Principles of Semiconductor Device Design. (4) Lecture, three hours; discussion, one hour; outside study, four hours. Requisite: course 121A. Introduction to principles of operation of bipolar and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

122AL. Semiconductor Devices Laboratory. (5) Lecture, four hours; laboratory, four hours; outside study, seven hours. Requisites: courses 2, 121B. May be taken concurrently. Students will learn to use CAD tools to design and simulate semiconductor devices. Letter grading.

123A. Fundamentals of Solid-State I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: courses 121A, 123A. Basic structure of semiconductors, crystal structure, energy levels in solids, and band theory and semiconductor properties. Letter grading.

123B. Fundamentals of Solid-State II. (4) Lecture, three hours; outside study, nine hours. Requisite: course 123A. Discussion of solid-state properties, lattice vibrations, phonons, dielectric, magnet- ic, and superconducting properties. Letter grading.

124. Semiconductor Physical Electronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 123A. Basic structure of semiconductors, experimental probes of basic band structure parameters, statistics of carriers, carrier transport properties at low fields, excess carrier transport properties, carrier recombination mechanisms, heterojunction properties. Letter grading.

129D. Semiconductor Processing and Device Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisites: courses 121A, 121B. Introduction to CAD tools used in integrated circuit processing and device design. Device structure optimization tool is based on PISCES; process integration tool is based on SUPREM. Course familiarizes students with key processes. Letter grading.

131A. Probability. (4) Lecture, four hours; discussion, one hour; outside study, 10 hours. Requisites: course 102, Mathematics 32B, 32B. Introduction to basic concepts of probability, including random variables, distributions, densities, moments, characteristic functions, and limit theorems. Applications to communication, control, and signal processing. Introduction to computer simulation and generation of random events. Letter grading.

131B. Introduction to Stochastic Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Introduction to continuous-time and discrete-time stationary processes, correlation function and spectral density, linear transformation, and mean-square estimation. Applications to communication, control, and signal processing. Introduction to computer simulation and analysis of stochastic processes. Letter grading.


150DL. Photonic Sensor Design Laboratory. (4) Lecture, two hours; laboratory, four hours; outside study, eight hours. Multidisciplinary course with lectures and laboratory experiments on optical sensors. Fundamentals of intensity and interference-based transducers, polarimetry, multiplexing and sensor networks, optical and biomedical sensors. Design and implementation of optical gyro- scope, computer interfacing, and signal processing. Letter grading.

M150L. Introduction to Micromachining and Microelectromechanical Systems Laboratory. (4) Formerly numbered 151A. (Same as Biomedical Engineering M150L and Mechanical and Aerospace Engineering M180L.) Lecture, three hours; laboratory, four hours; outside study, five hours. Requisites: course 1 or Physics 1C. Introduction to micromachining and microelectrome- chanical systems (MEMS). Methods of micromachin- ing and how these methods can be used to produce a variety of MEMS, including microstructures, mi- crosensors, and microactuators. Students fabricate set of basic MEMS devices hands-on microfabri- cation laboratory. Letter grading.

151DL. Microelectromechanical Systems Design. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Requisites: courses 115A, 115B. Microelectromechanical systems design, combining lecture and laboratory instruction on microsensor and microactuator fundamental operating principles and high-resolution electronic measurement methods for transducers. Emphasis on design of transducers and interface systems using device and system-level tools. Letter grading.

161. Electromagnetic Waves. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101. Time-varying fields and Maxwell equations, plane wave propagation and interaction with media, energy flow and Poynting vector, guided waves in waveguides and group veloc- ity, radiation and antennas. Letter grading.


163A. Introductory Microwave Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 161. Transmission lines definitions of waveguides, impedance transform- ers, power dividers, directional couplers, filters, hybrid junctions, nonreciprocal devices. Letter grading.

163B. Microwave and Millimeter Wave Active De- vices. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: courses 121A, 121B. MESFET, HEMT, HBT, IMPATT, Gunn, small signal models, noise models. Letter grading.

163C. Active Microwave Circuits. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 121A, 121B. Theory of microwave transistors and amplifiers; oscillators; stability, noise, distor- tion. Letter grading.

164AL. Microwave Wireless Laboratory I. (2) Lecture, one hour; laboratory, three hours; outside study, three hours. Introduction to microwave techniques and instrumentation for active and passive microwave components; cavity resonators, waveguides, waveguiders, slotted lines, directional couplers and waveguide design, fabrication, and characterization of microwave circuits in microstrip and coaxial systems. Letter grading.

164DL. Microwave Wireless Laboratory II. (2) Formerly numbered 164BL. Lecture, laboratory, two hours; outside study, three hours. Requisites: course 121A. Microwave integrated circuit design from a wireless system perspective, with focus on (1) use of modern circuit simulation tools, (2) design of wireless front-end circuits including low noise amplifi- er, mixer, and power amplifier, (3) knowledge and skills required in wireless integrated circuit character- ization and implementation. Letter grading.

M171L. Data Communication Systems Laboratory. (2 to 4) (Same as Computer Science M171L.) Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M161L. Computer Science 171. Limited to seniors. Interpretation of analog-signaling aspects of digital systems and data communications through experi- ence in using contemporary test instruments to gen- erate and display signals in relevant laboratory set- ups. Use of oscilloscopes, pulse and function genera- tors, baseband spectrum analyzers, desktop computers, terminals, modems, PCs, and worksta- tions for measurements of analog and digital impair- ments, waveforms and their spectra, modem and term- inal characteristics, and interfaces. Letter grading.

172. Introduction to Lasers and Quantum Elec- tronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite or corequisite: course 172. Properties of lasers, including saturation, gain, mode structure. Laser applications, including optics, modulation, communication, holography, and interferometry. Letter grading.

173. Photonic Devices. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 101. Physical applications and principles of lasers, Gaussian optics, resonant cavities, atomic radiation, laser oscillation and amplification, cw and pulsed la- sers. Letter grading.

172L. Laser Laboratory. (4) Laboratory, four hours; outside study, eight hours. Requisite or corequisite: course 172. Properties of lasers, including saturation, gain, mode structure. Laser applications, including optics, modulation, communication, holography, and interferometry. Letter grading.

173D. Photons and Communication Design Laboratory. (4) Formerly numbered 173L. Laboratory, four hours; outside study, eight hours. Requisite: course 172. Recommended preparation: course 132A. Introduction to measurement of basic photonic devices, including LEDs, lasers, detectors, and amplifiers; fiber- optic fundamentals and measurement of fiber sys- tems. Modulation techniques, including A.M., F.M., phase and suppressed carrier methods. Letter grad- ing.
174. Semiconductor Optoelectronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course 172. Introduction to semiconductor optoelectronic devices for optical communications, interconnects, and signal processing. Basic optical properties of semiconductors, pin photodiodes, avalanche photodiode detectors (APD), light emitting diodes (LED), semiconductor lasers, optical modulators and amplifiers, and typical photonic systems. Letter grading.

175. Fourier Optics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: courses 102, 161. Two-dimensional linear systems and Fourier transforms. Foundation of diffraction theory. Analysis of optical imaging systems. Spatial filtering and optical information processing. Wavefront reconstruction and holography. Letter grading.

176. Lasers in Biomedical Applications. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course 101. Study of different types of laser systems and their operation. Examination of their roles in current and projected biomedical applications. Specific capabilities of laser radiation to be related to each example. Letter grading.

M185. Introduction to Plasma Electronics. (4) (Same as Physics 158A.) Lecture, three hours. Requisite: course 101 or Physics 110A. Senior-level introductory course on electrodynamic gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

190D. Systems Design. (4) Lecture, two hours; discussion, two hours; outside study, eight hours. Limited to senior Electrical Engineering majors. Advanced systems design integrating communications, control, and signal processing subsystems. Different project to be assigned yearly in which student teams create high-performance designs that manage trade-offs among subsystems. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to seniors. Individual investigation of selected topic to be arranged with a faculty member. Enrollment request forms available in department office. Only 2 units may be applied toward degree; the 2 units must be approved by petition and can be used only as a replacement for a regular electrical engineering laboratory course. Students may take additional 199 courses, but they may not be applied toward degree. Letter grading.

Graduate Courses

201A. VLSI Architectures and Design Methodologies. (4) Lecture, four hours; outside study, eight hours. Requisite: course 212A or Computer Science M258A. In-depth study of VLSI architectures and VLSI design methodologies for variety of applications in signal processing, communications, networking, embedded systems, etc. VLSI architectures choices range from ASICS, full custom approach, and special purpose processors to general purpose microprocessors. VLSI design methodologies take design specifications to implementation with aid of modern computer-aided design tools. Letter grading.

202A. Embedded and Real-Time Systems. (4) Lecture, four hours; outside study, eight hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for behavioral synthesis, system synthesis, and real-time issues in embedded systems. Topics include behavioral synthesis, hardware/software cosynthesis, interface synthesis, system constraints, real-time specification and modeling, transformation and optimizations during synthesis and design optimization, concurrency, real-time OS, and embedded processors. Design for power, performance, and debugging. Letter grading.

204A. Advanced Compilers. (4) Lecture, four hours; outside study, eight hours. Requisites: Computer Science 132, 251A. Designed for graduate computer science and electrical engineering students. Efficient allocation of shared resources (buses, function units, register files) is one of most important areas of research in modern computer architecture and compilation. Research in selection and scheduling, register assignment, and low-level transformation in context of concurrent microarchitectures (e.g., VLIW, MIMD). Topics include mapping to specific intraprocessor communications buses, making effective use of hardware caches, and targeting special-purpose function units. Letter grading.

206A. Mobile and Wireless Networked Computing Systems. (4) Lecture, four hours; outside study, eight hours. Designed for graduate computer science and electrical engineering students. Interdisciplinary course covering mobile computing, wireless networking, and multimedia processing techniques for computing systems capable of ubiquitous transport and processing of multimedia information. Topics include wireless and cellular fundamentals, network mobility management, low-power portable node architecture, mobile IP, wireless TCP, middleware and operating system issues, and context-aware adaptive applications. Letter grading.


209S. Special Topics in Embedded Computing Systems. (4) Lecture, four hours; outside study, eight hours. Current topics in embedded computing systems, including but not limited to processor and system architecture, real-time, low-power design. S/U or letter grading.


211B. Digital Image Processing II. (4) Lecture, three hours; laboratory, four hours; outside study, five hours. Requisite: course 211A. Advanced digital image processing theory and techniques. Topics include modeling of restoration, scene reconstruction, and video image compression, tomographic imaging, and multiresolution analysis using wavelet transforms. Letter grading.


212B. Multirate Systems and Filter Banks. (4) Lecture, three hours; outside study, nine hours. Requisite: course 212A. Fundamentals of multirate systems; polyphase representation; multistage implementations; applications of multirate systems; maximally decimated filter banks; perfect reconstruction systems; parity-arranged filter banks; wavelet transform and its relation to multirate filter banks. Letter grading.

213A. Advanced Digital Signal Processing Circuit Design. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 212A, M216A. Digital filter design and optimization tools, architectures for digital signal processing circuits; integrated circuit modules for digital signal processing programmable signal processors; CAD tools and cell libraries for application-specific integrated circuit design; case studies of speech and image processing circuits. Letter grading.

M214A. Digital Speech Processing. (4) (Formerly numbered 214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 113. Theory and applications of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

214B. Advanced Topics in Speech Processing. (4) Lecture, three hours; computer assignments, two hours; outside study, seven hours. Requisite: course M214A. Advanced techniques used in various speech-processing applications, with focus on speech recognition by humans and machine. Physiology and psychoacoustics of human perception. Dynamic Time Warping (DTW) and Hidden Markov Models (HMM) for automatic speech recognition systems, pattern classification, and search algorithms. Aids for hearing impaired. Letter grading.
215A. Analog Integrated Circuit Design. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115B. Analysis and design of analog integrated circuits. MOS and bipolar device structures and models, single-stage and differential amplifiers, noise, feedback, operational amplifiers, offset and distortion, sampling devices and discrete-time circuits, bandgap references. Letter grading.

215B. Advanced Digital Integrated Circuits. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 115C, M216A. Analysis and comparison of modern logic families (CMOS, bipolar, BiCMOS, GaAs). MSI digital circuits (flipflops, registers, counters, PLAs). VLSI memories (ROM, RAM, CCD, bubble memories, EPROM, EEPROM) and VLSI systems. Letter grading.

215C. Analysis and Design of RF Circuits and Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: 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.


215E. Synthesis and Synchronization. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215A, M216A. Analysis and design of circuits for synchronization and communication for VLSI systems. Use of both digital and analog design techniques to improve data rates 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. LSI in Computer System Design. (4) (Same as Computer Science M256A.) Lecture, four hours; laboratory, four hours. Limited to graduate computer science and electrical engineering students. LSI/VLSI design and application in computer systems. Fundamental design techniques that can be used to develop complex integrated systems on a chip. Letter grading.

M216B-M216C. LSI in Computer System Design. (4-4) (Same as Computer Science M255B-M255C.) Lecture, four hours; laboratory, four hours. Requisites: course M216A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. In Progress and S/U or letter grading.

M217. Biomedical Imaging. (4) (Same as Biomedical Engineering M217.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 114D or 211A. Mathematical principles of medical imaging modalities: X-ray, computed tomography, positron emission tomography, single photon emission computed tomography, magnetic resonance imaging. Topics include basic principles of each imaging system, image reconstruction algorithms, system configurations and their effects on reconstruction algorithms, specialized imaging techniques for specific applications such as flow imaging. Letter grading.

219A. Special Topics in Circuits and Signal Processing. (4-4) Lecture, four hours; outside study, eight hours. Advanced treatment of topics selected from research areas in circuit theory, integrated circuits, or signal processing. Letter grading.

219A. Physics of Semiconductors Devices I. (4) Lecture, four hours; outside study, eight hours. Requisite: course 121A. Physical principles and design considerations of junction devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Lecture, four hours; outside study, eight hours. Requisite: course 121A. Principles and design considerations of field effect devices and charge-coupled devices. Letter grading.

221C. Microwave Semiconductor Devices. (4) Lecture, four hours; outside study, eight hours. Requisite: course 121A. Physical principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, transferred electron devices, tunnel diodes, microwave transistors, oscillators. Letter grading.

222. Integrated Circuits Fabrication Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 2. Principles of integrated circuits fabrication processes. Technological limitations of integrated circuits design. Topics include bulk crystal and epitaxial growth, thermal oxidation, diffusion, ion implantation, chemical vapor deposition, dry etching, lithography, and metallization. Introduction of advanced process simulation tools. Letter grading.


224. Solid-State Electronics II. (4) Lecture, four hours; outside study, eight hours. Requisite: course 223. Techniques to solve Boltzmann transport equation, various scattering mechanisms in semiconductors, high field transport properties in semiconductors, Monte Carlo method in transport. Optical properties. Letter grading.

225. Superlattices and Quantum Wells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 223. Theoretical methods for calculating electronic and optical properties of semiconductors: quantum well superlattices, and tunnel structures. Quantum size effects and low-dimensional systems. Application to semiconductor devices, including negative resistance diodes, transistors, and detectors. Letter grading.


229. Advanced Electrical Engineering Seminar. (2) Seminar, two hours; outside study, six hours. Preparation: successful completion of Ph.D. major field examination. Seminar on current research topics in solid-state electronics and optical properties of semiconductors (Section 1) or in electronic circuit theory and applications (Section 2). Students report on a tutorial topic and on a research topic in their dissertation area. May be repeated for credit. S/U grading.

230A. Estimation and Detection in Communication and Radar Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Applications of estimation and detection theory in communication and radar engineering; random signal and noise characterization by analytical and simulation methods; 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. Letter grading.

230B. Digital Communication Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 132A, 230A. Basic concepts of digital communication systems; representation of bandpass waveforms; digital signal processing and error correction systems; receivers in Gaussian noise; comparison of digital modulation methods; synchronization and adaptive equalization; applications to modern communication systems. Letter grading.


230D. Signal Processing in Communications. (4) Lecture, four hours; outside study, eight hours. Requisites: course 132A, course 230C. Basic digital signal processing techniques for estimation and detection of signals in communication and radar systems. Optimization of dynamic range, quantization, and state constraints; DFT, convolution, FFT, NT, Winograd DFT, systolic array; spectral analysis-windowing, AR, and ARMA; system applications. Letter grading.

231A. Information Theory: Channel and Source Coding. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Fundamental limits on compression and transmission of information. Topics include limits and algorithms for lossless data compression, channel capacity, rate versus distortion, capacity for multiple access, and information theory for multiple users. Letter grading.

231E. Channel Coding Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Introduction to stochastical processes as applied to study of telecommunication systems and error correction theory; discrete-time Markov chains; continuous-time Markov jump processes. Applications to traffic and queueing analysis of basic telecommunication system models. Letter grading.

232A. Stochastic Modeling with Applications to Telecommunication Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Introduction to stochastical processes as applied to study of telecommunication systems and error correction theory; discrete-time Markov chains; continuous-time Markov jump processes. Applications to traffic and queueing analysis of basic telecommunication system models. Letter grading.

232B. Telecommunication Switching and Queueing Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 232A. Queue modeling and analysis with applications to space-time digital switching systems and to integrated-service telecommunication systems. Fundamentals of traffic engineering and queuing theory. Queue size, waiting time, busy period, blocking, and stochastic process analysis for Markovian and non-Markovian models. Letter grading.


232D. Telecommunication Networks and Multiple-Access Communications. (4) Lecture, four hours; outside study, eight hours. Requisite: course 232B. Performance analysis and design of telecommunication networks and multiple-access communication systems. Topics include architectures, multiplexing, and multiple-access, access methods, error/flow control, switching, routing, protocols. Applications to local-area, distributed protocols. Letter grading.

232E. Graphs and Network Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 136. Solution to analysis and synthesis problems which may be formulated as flow problems in capacity constrained or cost constrained networks. Development of methods to solve network flow theory using graph theoretic methods; application to communication, transportation, and transmission problems. Letter grading.
M240A. Linear Dynamic Systems. (4) (Same as Chemical Engineering M280A and Mechanical and Aerospace Engineering M270A.) Lecture; four hours; outside study, eight hours. Recommended prerequisite: course 141 or Mechanical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley-Hamilton theorem, Jordan form; solution of state equations; stability; controllability; observability. Realizability and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.

240B. Linear Optimal Control. (4) Lecture; four hours; outside study, eight hours. Recommended prerequisite: course 142A. Introduction to optimal control, with emphasis on detailed study of LQR, or linear regulators with quadratic cost criteria. Relationships to classical control system design. Letter grading.

M240C. Optimal Control. (4) (Same as Chemical Engineering M280C and Mechanical and Aerospace Engineering M270C.) Lecture; four hours; outside study, eight hours. Recommended prerequisite: course 240B. Applicability of optimization methods. Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynam- ic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.


241C. Stochastic Control. (4) Lecture; four hours; outside study, eight hours. Recommended prerequisite: courses 240B, 241A. Model-based control and optimal feedback control of stochastic systems; discrete-time state-space models; sigma algebra equivalence and separation principle; dynamic programming; compensation design for time invariant systems; feedback control and servomechanisms, extensions to nonlinear systems; applications to interception guidance, gust alleviation. Letter grading.

M242A. Nonlinear Dynamic Systems. (4) (Same as Chemical Engineering M282A and Mechanical and Aerospace Engineering M272A.) Lecture; four hours; outside study, eight hours. Recommended prerequisite: course M240A or Linear Dynamic Systems. In-depth study of optimal feedback control of stochastic systems; discrete-time state-space models; sigma algebra equivalence and separation principle; dynamic programming; compensation design for time invariant systems; feedback control and servomechanisms, extensions to nonlinear systems; applications to interception guidance, gust alleviation. Letter grading.

M248S. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M287 and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presenta- tions of research topics by leading academic re- searchers from fields of systems, dynamics, and con- trol. Students who work in these fields present their papers and results. S/U grading.

249S. Topics in Control. (4) Seminar, four hours; outside study, eight hours. Limited treatment of one or more aspects of controls. Topics such as computational methods for optimal control; stability of distributed systems; identification; adaptive control, nonlinear filtering; differential games; applica- tions to flight control, nuclear reactors, process con- trol, biomedical problems. May be repeated for credit with topic change. Letter grading.

M250A. Microelectromechanical Systems (MEMS) Fabrication. (Formerly numbered 250B.) (Same as Biomedical Engineering M250A and Mechanical and Aerospace Engineering M280.) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended prerequisite: course M150L. Advanced discus- sion of microfabrication processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, non-uniform properties, and residual/intrinsic stress. Letter grading.

M250B. Microelectromechanical Systems (MEMS) Device Physics and Design. (Formerly numbered 250B.) (Same as Biomedical Engineering M250B and Mechanical and Aerospace Engineering M282.) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended prerequisite: course M250A. Introduction to MEMS device physics, de- sign rules, sensing and actuation mechanisms, mi- crosensors, and microactuators. Designing MEMS to be produced with both foundry and nonfoundry pro- cesses. Computer-aided design for MEMS. Design project required. Letter grading.

250C. Microsensors and Microinstruments. (4) Lecture; three hours; laboratory, three hours, outside study, six hours. Recommended prerequisite: course M250B. Funda- mentals of microelectromechanical systems (MEMS) microsensors and microinstruments. Measurement principles for MEMS transducers. Design methods and design constraints for sensitivity and stability. Im- plementation of control and measurement mecha- nisms for MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, non-uniform properties, and residual/intrinsic stress. Letter grading.

259S. Seminar: Microelectromechanical Systems. (2) Seminar, two hours; outside study, four hours. Seminar on microelectromechanical systems (MEMS). Letter grading.


261. Microwave and Millimeter Wave Circuits. (4) Lecture; four hours; outside study, eight hours. Recommended prerequisite: course 163A. Rectangular and circular waveguides, microstrip, stripline, finite, and dielectric waveguide distributed circuits, with applications in micro- wave and millimeter wave integrated circuits. Sub- strate materials, surface wave phenomena. Analytical methods for discontinuity effects. Design of passive microwave and millimeter wave circuits. Letter grading.


274. Fiber Optic System Design. (4) Lecture, three hours; outside study, eight hours. Requisites: courses 173DL and/or 174. Top-down introduction to physical layer design in fiber optic communication systems, including Telecom, Datacom, and CATV. Fundamentals of digital and analog optical communication systems, fiber transmission characteristics, and optical modulation techniques, including direct and external modulation and computer-aided design. Architectural-level design of fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and predistortion circuits. Letter grading.

279S. Special Topics in Quantum Electronics. (4) Lecture, four hours; outside study, eight hours. Current research topics in quantum electronics, lasers, nonlinear optics, optoelectronics, ultrafast phenomena, fiber optics, and lightwave technology. May be repeated for credit. Letter grading.


108. Research for and Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

**Engineering Schoolwide Programs**

**Henry Samueli School of Engineering and Applied Science**

**Graduate Study**

Official, specific degree requirements are detailed in *Program Requirements for UCLA Graduate Degrees*, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.Engr.) degree (through the Engineering Executive Program) and Engineer (Engr.) degree as schoolwide degrees. A certificate of specialization is available in all areas of specialization, except computer science.

**Engineering Lower Division Courses**

95. Ethical and Professional Issues in Engineering and Computer Science. (4) Lecture, four hours; discussion, one hour. Selected lectures, discussions, and oral and written reports related to professional engineering. Lectures by practicing engineers, case studies, and small group projects on issues that involve conflicting demands on society. Letter grading.

97. Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Introduction to engineering as a professional opportunity for freshman students by exploring difference between engineering disciplines and functions engineers perform. Development of skills and techniques for academic excellence through the team process. Investigation of national need underlying current effort to increase participation of historically underrepresented groups in the U.S. technological workforce. P/NP grading.
Upper Division Courses

194. Power and Ethics in Engineering History. (4) Lecture, two hours; discussion, one hour; outside study, seven hours. Limited to juniors/seniors. Rigorous framework for analyzing social constraints to technological change and use of ethical, economic, and historical frameworks, with emphasis on scientific, industrial, and military perspectives. Designed for engineering and computer science students as a humanities class for investigating strategic relationships among technology, moral responsibility, and technological change. Letter grading.


Graduate Courses

200. Program Management Principles for Engineers and Professionals. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of necessary processes and procedures to successfully manage technology programs. Review of fundamentals of program planning, organizational structure, implementation, and performance tracking methods to provide program manager with necessary information to support decision-making process that provides high-quality products on time and within budget. Letter grading.

201. Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of major elements of systems engineering process. Coverage of key elements: system requirements and flowdown, product development cycle, functional analysis, system synthesis and trade studies, budget allocations, risk management metrics, review and audit activities and documentation. Letter grading.

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

470A-470D. The Engineer in the Technical Environment. (3-3-3) Lecture, four hours; discussion, one hour; outside study, 12 hours. Designed for seniors. Introduction to Engineering Executive Program students. Theory and technology related to major ethical and social issues. In Progress and S/U or letter grading (credit to be given on completion of courses 472B and 472D).

473A-473B. Analysis and Synthesis of a Large-Scale System. (3-3-1.5) Lecture, hours (courses 472A, 472B, 472C) and 90 minutes (course 472D), Limited to Engineering Executive Program students. Problem area of modern industry or government is selected as class project, and its solution is synthesized using quantitative tools and methods. Project also serves as laboratory in organization for a goal-oriented technical group. In Progress and S/U grading.

495. Teaching Assistant Training Seminar. (4) Seminar, four hours; outside study, eight hours. Preparation: appointment as a teaching assistant. Limited to graduate engineering students. Seminar on communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

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.

ENGLISH

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Christopher C. Baswell, Ph.D.
Calvin B. Bedient, Ph.D.
Albert R. Braunmuller, Ph.D.
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King-Kok Cheung, Ph.D.
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Edward I. Condren, Ph.D.
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Christopher Looby, Ph.D.
Anne K. Mellor, Ph.D.
Donka Minkova, Ph.D.
Harryette R. Mullen, Ph.D.
Joseph F. Nagy, Ph.D.

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Debora K. Shuger, Ph.D.
Mona E. Simpson, M.F.A.
Eric J. Sundquist, Ph.D. (UCLA Foundation Professor)
Robert N. Watson, Ph.D.
Thomas R. Wortham, Ph.D.
Stephen I. Yenser, Ph.D.

Professors Emeriti

Paula Gunn Allen, Ph.D.
Martha Banita, Ph.D.
Charles A. Berst, Ph.D.
Vinton A. Dearing, Ph.D.
Robert W. Deters, Ph.D.
Reginald A. Foykes, Ph.D.
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Alexander Welsh, Ph.D.

Associate Professors

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Ali Behdad, Ph.D.
Helen Deutsch, Ph.D.
Lowell Gallagher, Ph.D.
Alicia Gaspar de Alba, Ph.D.
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Sonia Saldivar-Hull, Ph.D.
Richard A. Yarbrough, Ph.D.

Assistant Professors

Jennifer L. Fleissner, Ph.D.
Yogita Goyal, Ph.D.
Mark J. McGuire, Ph.D.
Caroline A. Streeter, Ph.D.

Senior Lecturers S.O.E.

Jerome Cushman, A.B., B.S.L.S., Emeritus
David Stuart Rodes, Ph.D.

Lecturers

Stephen J. Dickey, Ph.D.
Christopher M. Mott, Ph.D.

Adjunct Professors

Russell Leong, M.F.A.
Murray Roston, Ph.D.
Carolyn See, Ph.D.
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 the primary language, and to the study of the history and structure of the English language itself. Although committed to no single method or approach, the department encourages an emphasis on British, American, and world literary history and requires of its undergraduate majors a firsthand acquaintance with many of the more influential writers who have helped during the past millennium to make English a global language that possesses richly diverse and highly influential literary cultures. Within the department, students are able to pursue a variety of approaches to the study of literary culture beyond the strictly historical — literary criticism, for example, or those that draw on the resources of such disciplines as sociology, psychology, and philosophy. Within the B.A. degree in English, qualified students may elect a concentration either in creative writing or in world literature. The department also offers a Bachelor of Arts degree in American Literature and Culture. Other undergraduate degrees include the B.A. in English/Greek and in English/Latin, offered jointly with the Classics Department.

An understanding and appreciation of literature can furnish lifelong rewards. In addition to such personal benefits, the department seeks to impart the capacity to make balanced critical judgments and the ability to write the English language persuasively, with point and effect. 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, and teaching.

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 Ph.D. degree. Because the Ph.D. 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 Subject A requirement before taking any courses in English (other than English Composition A or 2). For further information regarding Subject A, see the Undergraduate Study section of this catalog.

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 later in this chapter). Transfer students who have satisfied the College of Letters and Science foreign language requirement at the high school level through the IGETC program may satisfy the departmental requirement with five foreign literature in translation courses. The courses may be taken on a P/NP grading basis.

English B.A.
The Bachelor of Arts degree has concentrations in creative writing and in world literature. An international students program in English is also offered.

Preparation for the Major
Required: English Composition 3, English 4W, 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
To be admitted as English majors, transfer students 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.

The Major
Required: Twelve upper division English courses, including 141A or 141B, 142A, 142B, 143, at least one course from each of the 150 and 180 series, one course from 160 through 164, and five additional courses of which three must be selected from 140A, 140B, 142C, or 150A through M197D. Students are encouraged to choose additional electives from courses 140A through M197D. English 140A is especially recommended if they plan graduate work in literature. They may wish to select several courses in the relevant classical and postclassical foreign literatures and thought.

Optional Concentrations and Special Programs
The department offers optional concentrations in creative writing and in world literature, as well as a special program for international students. For all programs, the regular Preparation for the Major sequence as well as the departmental foreign language requirement apply. Because of the specialized nature of these programs, students should consult the departmental counselor before selecting and declaring one of them as a concentration.

Creative Writing Concentration
The creative writing concentration consists of English 142A and 142B and a minimum of 10 additional upper division English courses: three creative writing courses from 133 or 134, taken in a single genre (poetry or short story), three literature courses paralleling the creative writing genre, and four electives selected from courses 140A through 190. Students may declare this program as a concentration only after they have completed three creative writing workshops in a single genre. Students may not enroll in more than one workshop (course 133, 134, or 135) per term or in more than two workshops with the same instructor. No student may take for credit more than three workshops in any one creative writing genre. Students planning to select this program should contact the departmental counselor for further details.

World Literature Concentration
The world literature concentration consists of nine upper division courses in English or American literature and four upper division courses in foreign literatures (at least one of which must be taught in the original language). The nine courses in English must include 141A, 141B, or 143; 142A and 142B; at least one course from the 150 series; and four electives selected from courses 140A through M197D (students intending graduate work in literature are especially encouraged to take English 140A). A listing of acceptable courses may be obtained from the department.

International Students Program
The department offers a special program in English to bona fide international students whose native language is other than English. For this program, students must satisfy all requirements listed under Preparation for the Major; they may fulfill the departmental foreign language requirement with their own native language. The following 12 courses are required for the program itself: English as a Second Language 106, 108, 109; two courses from English 100 through 199; 122; 142A, 142B; and four additional courses from 140A through M197D. Students who complete this program and wish to pursue graduate study should consult the departmental counselor about programs of study and requirements for admission.

American Literature and Culture B.A.
Preparation for the Major
Required: English Composition 3, English 4W, 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
To be admitted as American Literature and Culture majors, transfer students 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.
The Major

*Required:* Twelve upper division courses, including six in American literature selected from English 170A through 179, two of which must be devoted to literature written before 1900 (courses 170A, 170B, 171A, 171B, 173A, 174A); two courses from 142A, 142B, 143; one seminar from 187, 188, 189, or when treating American topics, 180X; one course from M101A, M101B, M102A, M102B, 103, M104A, M104B, M104C, M105A, M105B, 106, M107A (also M107C when treating American topics or figures), or 109; and two courses from 100 through 199 or from courses pertaining to American culture offered by other departments (of those courses applied toward the major from outside the Department of English, both must usually come from one department or program and appear on a list of approved courses for the major).

English/Greek B.A.

**Preparation for the Major**

*Required:* English 4W, 10A, 10B, 10C, Greek 1, 2, 3.

*Transfer Students*

To be admitted as English/Greek majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English critical reading and writing course, one year of English literature survey courses, and one year of Greek.

The Major

*Required:* (1) Seven courses from English 140A through 190 selected in consultation with an adviser in the Department of English; (2) seven upper division or graduate courses in Greek, including courses 100 and either 101A or 101B, selected in consultation with an adviser in the Department of Classics (of these seven courses, at least two must be in poetry and two in prose). Total courses required: 14.

English/Latin B.A.

**Preparation for the Major**

*Required:* English 4W, 10A, 10B, 10C, Latin 1, 2, 3.

*Transfer Students*

To be admitted as English/Latin majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English critical reading and writing course, one year of English literature survey courses, and one year of Latin.

The Major

*Required:* (1) Seven courses from English 140A through 190 selected in consultation with an adviser in the Department of English; (2) seven upper division or graduate courses in Latin, including courses 105A and 113, selected in consultation with an adviser in the Department of Classics (of these seven courses, at least two must be in poetry and two in prose). Total courses required: 14.

**Honors Program**

**Admission**

The honors program is open to departmental majors with a 3.5 departmental and a 3.25 overall grade-point average. 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 further information, contact the departmental counselor.

**Requirements**

All honors students are required to take English 140A or 140B during the junior year and one seminar from the English 180 through 189 sequence, preferably before the senior year. In Spring Quarter of the junior year, they must take course 199HA. During Fall and Winter Quarters of the senior year, they take courses 199HB and 199HC, in which they write a thesis under the direction of a faculty member. The thesis determines whether they receive highest honors, honors, or no honors.

**Subject Matter Preparation Program for Single Subject Credential in English**

Students interested in obtaining a single subject secondary school credential in English should consult with a departmental counselor regarding the requirements for a waiver from the English 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. Students interested in elementary school education are strongly urged to participate in the Diversified Liberal Arts Program (DLAP), administered by the Letters and Science Counseling Services, A316 Murphy Hall. For additional information on courses leading to the credential, consult the Department of Education at (310) 825-8328.

**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, 2222 Rolfe Hall, (310) 825-1389. This allows them priority enrollment in many upper division courses.

**Required Lower Division Courses**

*10 units:* English 10B and 10C, with grades of C or better.

**Required Upper Division Courses**

*21 to 25 units:* Five courses selected from English 100 through M197D, including course 142A and one other course that focuses on literature in English written before 1900. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in any other department or program.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in English.

**English**

**Lower Division Courses**

*4H. Critical Reading and Writing (Honors).* (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for former course 4H. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of four papers (three to five pages each) and two in-class essays. Satisfies Letters and Science 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. Not open for credit to students with credit for former course 4. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of four papers (three to five pages each) and two in-class essays. Satisfies Letters and Science Writing II requirement. Letter grading.

*10A. English Literature to 1660.* (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Study of selected works of the period, beginning with selections from Old English poetry and including writings by Chaucer, Spenser, Shakespeare, Donne, and Milton. Minimum of three papers (three to five pages each) or equivalent. P/NP or letter grading.
10B. English Literature, 1660 to 1832. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Study of selected works of the period, including writings by Dryden, Pope, Swift, Wordsworth, and Keats. Minimum of three papers (three to five pages each) or equivalent. P/NP or letter grading.

10C. English Literature, 1832 to the Present. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Study of selected works of the period, including writings by T. S. Eliot, William Faulkner, John Updike, and E. L. Doctorow. Minimum of three papers (three to five pages each) or equivalent. P/NP or letter grading.

20. Introduction to Creative Writing. (4) Preparation: submission of creative or expository writing samples to a screening committee. Required: English Composition 3 or 3H. Designed to introduce fundamentals of creative writing. Emphasis either on poetry, fiction, or drama, depending on wishes of instructor(s) during any given term. Readings from assigned texts and weekly writing assignments required.

M40. Structure of English Words. (5) Same as Linguistics M120. Lecture, four hours; discussion, one hour. Instruction on the 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 comprehension of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

70. Major British Authors before 1800. (4) Enforced requisite: satisfaction of Subject A requirement. Not open for credit to English majors or students with credit for course 10A or 10B. Study of selected major works of English literature from 100 to 1800, including works of such writers as Chaucer, Shakespeare, Donne, Milton, Swift, Pope, Johnson, and Fielding.

75. Major British Authors, 1800 to the Present. (4) Enforced requisite: satisfaction of Subject A requirement. Not open for credit to English majors or students with credit for course 10B or 10C. Study of selected major works of English literature from 1800 to the present, including works of such writers as Wordsworth, Coleridge, Keats, Tennyson, Dickens, Browning, Yeats, Joyce, and Eliot.

80. Major American Authors. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Not open for credit to English majors or students with credit for courses in the 170 series. Introduction to the chief American authors, with emphasis on poetry, non-narrative prose, and short fiction of such writers as Poe, Dickinson, Emerson, Whitman, Twain, Frost, and Hemingway. P/NP or letter grading.

85. American Novel. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Not open for credit to English majors or students with credit for courses in the 170 series. Development, with emphasis on form, of the American novel from its beginning to the present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.


90. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Not open for credit to English majors or students with credit for course 120A or 124B. Survey of Shakespeare’s plays, including comedies, tragedies, and histories, selected to represent Shakespeare’s breadth, artistic progress, and total dramatic achievement. P/NP or letter grading.

95A. Introduction to Poetry. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Recommended for introductory, potential candidates of imaginative critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity, form and structure) and aesthetic issues, including evaluative criteria, followed by close critical analysis of a selection of representative poems. P/NP or letter grading.

95B. Introduction to Drama. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Examination of representative plays; readings may range from Greek to modern drama. Emphasis on critical approaches to dramatic text; study of issues such as plot construction, characterization, special uses of language in drama, method of style, and the idea of the dramatic. P/NP or letter grading.

95C. Introduction to Fiction. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Subject A requirement. Introduction to prose narrative, its technical and critical analysis of short and long narratives and of critical issues such as plot, characterization, setting, narrative voice, realistic and nonrealistic forms. P/NP or letter grading.


97H. Honors Seminar for Freshmen and Sophomores. (4) Seminar, three hours. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Limited to 15 students. Recommended for lower division students who wish to participate in English honors program during their junior year. Content varies; see departmental counselor for information. P/NP or letter grading.

100. Introduction to Special Topics and Genres. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Study of a particular topic, genre, or subgenre in literature such as satire, biographical, parody, or a specialized classification of literature. May be repeated for credit. P/NP or letter grading.


M102A. Asian American Literature to 1980. (5) Same as Asian American Studies M112A. Lecture, four hours. Required: English Composition 3 or 3H. Survey of Asian American literature from early period of formation to cultural nationalist movement of late 1960s and 1970s. Works of such authors as Edith Eaton, Carlos Bulosan, Hisayae Yamamoto, Louis Chu, and Elaine Hong Kingston included. P/NP or letter grading.

M102B. Asian American Literature since 1980. (5) Same as Asian American Studies M112B. Lecture, four hours. Required: English Composition 3 or 3H. Survey of contemporary Asian American literature with emphasis on its growing ethnic diversity including influence of new immigrants. Works of such authors as Theresa Cha, Bhabati Mukherjee, David Wong Louie, Garrett Hongo, and Jessica Hagedorn included. P/NP or letter grading.

103. Jewish American Fiction. (5) Lecture, four hours. Required: English Composition 3 or 3H. Study of the fiction of Jewish Composition in America, such as Bellow, Malamud, and Roth, focusing on encounter of Jewish ethical ideals and social values with the contemporary environment. P/NP or letter grading.

M104A. Early Afro-American Literature. (5) Same as Afro-American Studies M104A. Lecture, four hours. Required: English Composition 3 or 3H. Introductory survey of 20th-century black American literature from New Negro Movement of post-World War I period to the 1960s, including oral and written forms (folktales, spirituals, sermons, fiction, poetry, essays), by such authors as Phillis Wheatley, David Walker, Frances Harper, Frederick Douglass, Nella Larsen, Zora Neale Hurston, Charles W. Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. Afro-American Literature from the Harlem Renaissance to the 1960s. (5) Same as Afro-American Studies M104B. Lecture, four hours. Required: English Composition 3 or 3H. Introductory survey of 20th-century black American literature from Harlem Renaissance to post-World War II period, including oral and written forms (ballads, blues, speeches) and fiction, poetry, and essays by such authors as Jean Toomer, Claude McKay, Langston Hughes, Sterling Brown, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, and Ralph Ellison. P/NP or letter grading.

M104C. Afro-American Literature since the 1960s. (5) Same as Afro-American Studies M104C. Lecture, four hours. Required: English Composition 3 or 3H. Introductory survey of diverse forms of Afro-American literary expression produced from rise of Black Arts Movement of the 1960s to the present by such writers as Amiri Baraka, Nikki Giovanni, Alice Walker, Etheridge Knight, Toni Morrison, Martin Luther King, Jr., Paule Marshall, Ernest Gaines, Ishmael Reed, and Audre Lorde. P/NP or letter grading.

M105A. Early Chicana/Chicano Literature. (5) Same as Chicana and Chicano Studies M105A. Lecture, four hours. Required: English Composition 3 or 3H. Survey of Chicana/Chicano literature from the 16th century through Zoot Suit Riots (1943), including both oral and written forms of literary expression (corridos, folktales, essays, memoirs, novels, and poetry) by such authors as Cabeza de Vaca, Juan Seguin, America Paredes, Maria Ruiz Amparo Burton. P/NP or letter grading.

M105B. Recent Chicana/Chicano Literature. (5) Same as Chicana and Chicano Studies M105B. Lecture, four hours. Required: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1943, beginning with reactions to Zoot Suit Riots and continuing through Chicana/Chicano Movimiento to contemporary literature. Drama, novels, memoirs, essays, and poetry by such authors as Luis Valdez, Cherry Moraga, Sandra Cisneros, Rodolfo Anaya, Rolando Hinjosa, Oscar Zeta Acosta, and Ana Castillo. P/NP or letter grading.
106. Native American Literary Studies. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of American oral cultures through translated documents (song-poems, life-stories, myths, tales, dream visions, speeches), and/or images in writing about Native Americans (poetry, fiction, history, anthropology, sociology). P/NP or letter grading.

M107A. American Women Writers. (5) Same as Women’s Studies M107A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by American women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by American women. P/NP or letter grading.

M107B. British Women Writers. (5) Same as Women’s Studies M107B.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by British women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by British women. P/NP or letter grading.

M107C. Special Topics in Women and Literature. (5) (Same as Women’s Studies M107C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable topic, determined in consultation with instructor. Generalizations concerning the nature of the English used by such writers. May be repeated for credit. P/NP or letter grading.


108C. English Bible as Literature: Special Topics. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of the English Bible, with attention to particular literary themes, motifs, and genres. Possible discussion of influence of the Bible on discrete periods or individual authors in English literature. May be repeated for credit. P/NP or letter grading.

109. Interdisciplinary Approaches to Literature. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of the English Bible, with attention to particular literary themes, motifs, and genres. May be repeated for credit. P/NP or letter grading.

110. Studies in Individual Authors. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of a single author or body of work, with emphasis on the writer’s life, dramatic origins, oral epic, folklore, and ballad, emphasizing Indo-European and Semitic examples. P/NP or letter grading.

111. British Folklore and Mythology. (4) (Formerly numbered M111C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Designed for juniors/seniors. Survey of folklore of the peoples of Britain, with attention to their history, function, and regional differences. P/NP or letter grading.

112. Celtic Mythology. (4) (Formerly numbered M111D.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of early materials, chiefly literary, for the pre-Christian traditions of the Celtic peoples, ranging from ancient Gaul to medieval Ireland and Wales. P/NP or letter grading.

113. Survey of Medieval Celtic Literature. (4) (Formerly numbered M111E.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Knowledge of Irish or Welsh not required. General course dealing with Celtic literature from earliest times to the 14th century. P/NP or letter grading.

114. Celtic Folklore. (4) (Formerly numbered M111F.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to current techniques of folkloristic research. P/NP or letter grading.

116. Native American Literary Studies. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of historical backgrounds and development of types of children’s literature, folklore and oral tradition, levels of interest, criticism and evaluation, illustration and bibliography. P/NP or letter grading.

118. Children’s Literature. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of selected poems and representative come-
150. American Drama. (5) Lecture, four hours. Requisites: courses 10A, 10B. Study of American drama from its beginning to the present day. Historical period may vary with instructor. P/NP or letter grading.

176. Special Topics in American Culture. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Study of American culture in its relationships to other disciplines, including art, architecture, film, history, music, politics, and various social sciences, with emphasis on application of literary methodology to historical survey of American culture. May be repeated for credit. P/NP or letter grading.

177. Special Topics in American Literature. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Study of some aspect or theme in American literature. May be repeated for credit. P/NP or letter grading.

178. Perspectives in Study of American Culture. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Interdisciplinary study of American literature in its relationships to other disciplines, including art, architecture, film, history, music, politics, and various social sciences, with emphasis on application of literary methodology to historical survey of American culture. May be repeated for credit. P/NP or letter grading.

180. Specialized Studies in Medieval Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

180X. Specialized Studies in Literature. (5) Seminar, four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

181. Specialized Studies in Renaissance Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

182. Specialized Studies in 17th-Century Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

183. Specialized Studies in 18th-Century Literature. (5) Seminar, four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

184. Specialized Studies in Romantic Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.
185. Specialized Studies in Victorian Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

186. Specialized Studies in 20th-Century British Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

187. Specialized Studies in Colonial American Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

188. Specialized Studies in 19th-Century American Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

189. Specialized Studies in 20th-Century American Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in a specific term. May be repeated for credit. P/NP or letter grading.

190. Literature and Society. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Intensive study of some aspect of relationship between literature and social, economic, or political history. May be repeated for credit. P/NP or letter grading.

191. Postcolonial Literatures. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Survey of how colonialism and decolonization have shaped and been shaped by literature in English. Study of new Englishes and literature that combines European and non-Western aesthetic forms to produce new literary traditions. May be repeated for credit. P/NP or letter grading.

192. Interracial Encounters in Contemporary American Literature. (5) Lecture, three or four hours. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Study of recent literary and cinematic texts produced by people from different ethnic backgrounds living in the U.S. and providing comparative cultural perspectives on living in a multietnic society. P/NP or letter grading.

M197A. Topics in Afro-American Literature. (5) (Same as Afro-American Studies M197A.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Afro-American literature. Topics include the Harlem Renaissance; Afro-American Literature in the Nadir, 1890 to 1914; Contemporary Afro-American Fiction. May be repeated for credit. P/NP or letter grading.

M197B. Topics in Chicana/Chicano Literature. (5) (Same as Chicana and Chicano Studies M197B.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicano literature. Topics include labor and community; Chicana/Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; literary New Mexico; specific literary genres. May be repeated for credit. P/NP or letter grading.

M197C. Topics in Asian American Literature. (5) (Same as Asian American Studies M197C.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics include specific genres (autobiography, poetry, or drama); specific nationalities within the Asian American community; and themes related to such problems as generational differences, gender politics, or interethnic encounters. May be repeated for credit. P/NP or letter grading.

M197D. Special Topics in Lesbian and Gay Literature. (5) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M197D.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in lesbian and gay literature. Topics focus on a particular problem or issue in terms of its relationship to lesbian and gay culture and history. May be repeated for credit. P/NP or letter grading.

199. Special Studies in English. (2 to 4) Directed research project. To enroll or obtain information, see departmental counselors. May be repeated for credit. P/NP or letter grading.

199A. Honors Seminar. (5) Seminar, three hours. Requisite: course 140A. Introduction to research techniques and study of various approaches and applications of critical methodology as it relates to interpretation and evaluation of texts. Letter grading.

199B-199HC. Honors Tutorial. (5-5) Tutorial, to be arranged. Requisite: course 199A. Tutorial in which students write theses under direction of a faculty member. In Progress and letter grades.

Graduate Courses


201A. Criticism and Interpretation from Classical Era to Renaissance. (4) Lecture, three hours. Examination of major texts in history of critical theory and interpretation from pre-Socratic to Descartes, including classical critical theory (Plato, Aristotle, Horace, Longinus), biblical hermeneutics (Bible, Midrash, St. Paul, St. Augustine; St. Thomas Aquinas), and medieval and Renaissance theories of interpretation (Dante, Boccaccio, Sidney). S/U or letter grading.

201B. Aesthetics and Criticism from the Enlightenment to Decadence. (4) Lecture, three hours. Continuation of course 201A, proceeding from neo-classical and Enlightenment critical theory through Victorian and decadent aesthetic and literary criticism. Readings may include texts by Rousseau, Dryden, Pope, Hume, Kant, Schiller, the Schlegels, Coleridge, Hegel, Schelling, Arnold, Pater, Wilde, and Nietzsche. S/U or letter grading.

201C. Developments and Issues in Modern Criticism. (4) Lecture, three hours. Study of major figures and ideas in modern and contemporary critical theory. Readings vary from year to year but may include such figures as Freud, Durkheim, Saussure, Heidegger, Shklovsky, Benjamin, Adorno, Levi-Strauss, Lacan, Barthes, Derrida, Deleuze, Fanon, Foucault, Irigaray, Lyotard, Bourdieu, Bhabha, S/ U or letter grading.

202. Enumerative and Descriptive Bibliography. (4) Problems in bibliography, texts, and editions, with practical application in compiling bibliographies, editing texts, and approaching literature through textual criticism.

203. Computers and Literary Research. (4) Prior knowledge in this area not required. Practice in writing and using computer programs for analysis of literary style, content, and authorship.

204. History of Rhetoric. (4) Reading of basic texts in history of rhetoric and selections from standard commentaries. Survey of classical period and medieval-to-modern period in alternate years.

M205A. Study of Old English: History and Methods. (4) (Formerly numbered 205A.) (Same as Scandinavian M271.) Seminar, three hours. Exploration of scholarly and literary attempts to study, define, analyze, and interpret Old English language. May be repeated for credit. P/NP or letter grading.

M205B. Collecting Oral Tradition. (4) (Formerly numbered 205B.) (Same as Scandinavian M272.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.

M205C. Studies in Old Oral Traditions. (4) (Formerly numbered 205C.) (Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of variety and history of, and scholarship on, a particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folklore, legend) on a closely related oral tradition. S/U or letter grading.


211. Old English. (4) Study of Old English grammar, lexis, phonology, and pronunciation to enable students to read the language silently and aloud. Reading of as much of the more interesting Old English prose and poetry as can be read in a term.

212. Middle English. (4) Requisite: course 211. Detailed study of linguistic aspects of Middle English and of representative examples of the better prose and poetry.

213. Early Modern English. (4) Detailed study of phonology, morphology, syntax, and vocabulary of English between 1450 and 1750. Description and analysis of changes in the language in relation to intellectual, political, and social characteristics of the period.


218. Celtic Linguistics. (4) Survey of salient features of Celtic linguistic stock in its Gaelic and British branches, with reference to position of Celtic within Indo-European languages.

230. Workshop: Creative Writing. (2 to 4) Preparation: submission of writing samples in specified genre (poetry, fiction, or drama). May be repeated but may not satisfy more than one of the nine courses required for first qualifying examination nor any of the five courses required for second qualifying examination.

240. Studies in History of the English Language. (4) Individual seminars dealing with any single historical period from Old English period to the present or development of a particular linguistic characteristic (phonology, syntax, semantics, dialectology) through various periods. May be repeated for credit.

241. Studies in Structure of the English Language. (4) Topics in various aspects of structure of modern English, especially syntax and semantics. May be repeated for credit.
242. Language and Literature. (4) Application of linguistics to literary analysis. Individual seminars dealing with: (1) contemporary literature (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.

244. Old and Medieval English Literature. (4) Studies in poetry and prose of Old and medieval English literature; limits of investigation set by individual instructor. May be repeated for credit.

254. American Literature to 1900. (4) Studies in Colonial and 19th-century American literature; limits of investigation set by individual instructor. May be repeated for credit.

255. Contemporary American Literature. (4) Studies in contemporary American poetry and prose; limits of investigation set by individual instructor. May be repeated for credit.

256. Studies in the Drama. (4) Studies in drama as a genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

257. Studies in Poetry. (4) Studies in various themes and forms of poetry from Old English to the present; limits of investigation set by individual instructor. May be repeated for credit.

258. Studies in the Novel. (4) Studies in evolution of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

259. Studies in Criticism. (4) May be repeated for credit.

260. Studies in Language and Its Relationship to the Arts and Sciences. (4) Studies in relationship- ships of literature, arts, and sciences; limits of investigation set by individual instructor. May be repeated for credit.

M260A. Topics in Asian American Literature. (4) (Same as Asian American Studies M260C) 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. Studies in Chicana/Chicano Literature. (4) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural context that emerges in Chicana/Chicano discourse; limits of investigation set by individual instructor. May be repeated for credit.

M262. Studies in Afro-American Literature. (4) (Same as Afro-American Studies M200E) Intensive research and study of major themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit.

263. Celtic Literature. (4) Lecture, three hours. Preparation: knowledge of one of the ancient or modern Celtic languages. 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.

264. Studies in Rhetoric. (4) Discussion, three hours. Special topics in classical and modern rhetoric, including substantial practice in rhetorical analysis of literary texts. May be repeated for credit.

265. Postcolonial Literatures. (4) Seminar, three hours. Discussion, four hours. Preparation: knowledge of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

M266. Cultural World Views of Native America. (4) (Same as American Indian Studies M200B) Seminar, four hours. Preparation: knowledge of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

M267. Studies in English poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit.

268. Studies in Composition. (4) May be repeated for credit.

269. Interdisciplinary Studies in the 17th and 18th Centuries. (4) (Same as History M298) Topics vary according to the specific historical period. May be repeated for credit.

M270. Seminar: Literary Theory. (5) (Same as Comparative Literature M294) Seminar, three hours. Preparation: knowledge of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

M271. Seminar: Modern Yiddish Prose. (4) Seminar, three hours. Preparation: knowledge of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

M272. Current Issues in Teaching English. (4) Focus on one of a variety of topics of special current interest. May be repeated for credit.

M273. Interdisciplinary Studies in the 17th and 18th Centuries. (4) (Same as History M298) Topics vary according to participating faculty. May be repeated for credit.

M290. Interdisciplinary Studies. (4) Preparation: knowledge of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

495E. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U grading.

101A. Elementary Yiddish. (4) Lecture, four hours. Introduction to grammar; instruction in listening, speaking, reading, and writing skills. P/NP or letter grading.


102A-102B. Accelerated Elementary Yiddish. (6-6) Lecture, five hours; laboratory, one hour. Covers material in courses 101A, 101B, 101C in two terms rather than three. 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 a wide range of 19th- and 20th-century literature. 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 a wide range of 19th- and 20th-century literature. P/NP or letter grading.

199. Special Studies in Yiddish. (2 to 4) Tutorial, to be arranged. Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course, and who present such a course as a requisite. P/NP or letter grading.
Graduate Courses
596. Directed Individual Study or Research in Yiddish. (4) Tutorial, to be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs the study (see department for I.D. number). S/U grading.

English Composition (Writing Programs)
College of Letters and Science

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George Gadda, C.Phil., Assistant Director

Lecturers
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Wilson Chen, Ph.D.
William Creasy, Ph.D.
Richard A. Creese, Ph.D.
Esha De, Ph.D.
Randall Fallows, Ph.D.
Ed Frankel, M.A.
Rachel Fretz, Ph.D.
George Gadda, C.Phil.
Lisa Gerrard, Ph.D.
Patricia Gilmory, Ph.D.
Cheryl Giuliano, Ph.D.
Troy Gordon, Ph.D.
Susan Griffin, Ph.D.
Leigh Harris, Ph.D.
Janette Lewis, Ph.D.
Bonnie Lisle, Ph.D.
Sonia Maasil, M.A.
Susan Mach, Ph.D.
Sandra Mano, Ph.D.
Anita McCormick, Ph.D.
Cynthia Merrill, Ph.D.
Michele Moe, Ph.D.
Geraldine Moyle, Ph.D.
Shelby Popham, Ph.D.
Gregory Rubinson, Ph.D.
Robert Samuels, Ph.D.
Kim Savelson, Ph.D.
Emily G. Schiller, Ph.D.
Gina Shaffer, Ph.D.
Scott Sherman, J.D.
Steve Steinberg, Ed.D.
Jennifer Westbay, Ph.D.
Jeffrey Wheeler, Ph.D.

Scope and Objectives
Students need writing proficiency at every stage of their university careers. Although UCLA does not have a composition major, this program offers a series of courses introducing the varieties of university discourse and providing instruction in basic to high-level skills. Besides courses which satisfy the University's Subject A and English Composition requirements, the program offers writing courses linked with courses in other departments, intermediate and advanced courses in exposition, and language and composition courses for teachers. Special programs include the First-Year Intensive Program (FIPW) and the Transfer Intensive Program (TIP).

Undergraduate Study
Subject A
Every student who does not satisfy the Subject A 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 A or 2 (determined by performance on the Subject A Examination) or 2l (determined by performance on both the Subject A Examination and the English as a Second Language Placement Examination). For more information regarding Subject A, see Undergraduate Degree Requirements in the Undergraduate Study section of this catalog.

English Composition
Lower Division Courses
A. Introduction to University Discourse. (No credit). 5. Lecture, five hours. Enforced requisite: appropriate score on Subject A Examination. Displaces 4 units on student's Study List but yields no credit toward a degree. First course in reading university-level texts and framing written responses that employ a range of rhetorical strategies from paraphrase to analysis. Emphasis on revision, developing syntactic variety and academic vocabulary, and editing for grammar and style. Completion of course with a grade of C or better or demonstration of minimum competence on Subject A Examination is requisite to course 2.

2. Approaches to University Writing. (5). Lecture, four hours. Enforced requisite: course A with a grade of C or better or appropriate score on Subject A Examination. Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on revision for argumentative coherence and effective style. Completion of course with a grade of C or better satisfies Subject A requirement. Letter grading.

2l. Approaches to University Writing. (5). Lecture, six hours. Enforced requisite: appropriate scores on Subject A Examination and ESLPE. Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on strategies for developing coherent and well-argued pieces of academic writing and for achieving effective and clear style in academic prose. Completion of course with a grade of C or better satisfies Subject A and ESL requirements. Letter grading.

3. English Composition, Rhetoric, and Language. (5). Lecture, three hours. Enforced requisite: satisfaction of Subject A requirement, course 2 or English as a Second Language 3S (C or better). Rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of a minimum of 20 pages of revised text. Completion of course with a grade of C or better satisfies Letters and Science Writing I requirement. Letter grading.

3H. English Composition, Rhetoric, and Language (Honors). (5). Lecture, three hours. Enforced requisite: satisfaction of Subject A requirement, course 2 or English as a Second Language 3S (C or better). Rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of a minimum of 20 pages of revised text. Completion of course with a grade of C or better satisfies Letters and Science Writing I requirement. Letter grading.


Upper Division Courses
100W. Interdisciplinary Academic Writing. (5). Lecture, four hours. Requisite: course 3 or 3H. Designed for sophomores/juniors/seniors. Course in academic writing suitable for both lower and upper division students that helps them develop academic papers with a range of complexity and length. Focus on conventions of academic prose and genres across the disciplines. Written assignments include common forms of academic writing such as argument, research paper, and/or critical essay. Satisfies Letters and Science Writing II requirement. Letter grading.

110. Writing Adjunct. (4). Lecture, four hours. Requisite: satisfaction of Subject A requirement, course 3 or 3H. Students must be concurrently enrolled in a course offered in conjunction with course 110 (consult Schedule of Classes for courses so designated). Writing assignments: course 3 or 3H. Theme-based interdisciplinary course and reflect and develop analytic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4). Lecture, four hours. Requisite: satisfaction of Subject A and English Composition requirements. Survey of topics in English linguistics of special interest to elementary school teachers. Subjects include approaches to English grammar; language acquisition and development; language attitudes; regional and social dialects of American English; bilingual schooling; contribution of English language study to teaching of reading, writing, spelling, and literature.


120C. Language Study for Teachers of Subjects Other Than English: Secondary School. (4). Lecture, four hours. Requisite: satisfaction of Subject A and English Composition requirements. Introduction for teachers of subjects other than English to basic concepts in language acquisition, dialectology, sociolinguistics, and composition.

123. Information Literacy and Research Skills. (1). Lecture, one hour. Preparation: satisfaction of Letters and Science 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.
Graduate Courses

300. Teaching English. (4) Lecture, four hours. Re- quirements of candidates for single subject credential in English. Study of theories of rhetoric, composition, reading, and literature as they apply to secondary school or college English curriculum. S/U or letter grading.

495A. Supervised Teaching Preparation. (2) Semi- nar, two hours. Required of all applicants for teaching assistantships in English. Introduction to teaching of literature intended to prepare teaching assistants for their first assignments in leading discussion sections. Practical concerns of creating assignments, grading papers, and holding conferences. S/U grading.

495B. Supervised Teaching Preparation. (2) Semi- nar, two hours. Course 495A is not requisite to 495B. 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. S/U grading.

495C. Supervised Teaching Preparation. (2) Semi- nar, two hours. Required of all teaching assistants in their initial quarter of teaching English Composition 3 or English 4W. Mentoring and group teaching assistant mentor conferences. S/U grading.

ENVIRONMENTAL HEALTH SCIENCES

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Nola Kennedy, Ph.D.

Environmental Health Sciences / 285

Wen Chen Victor Liu, Ph.D., in Residence

Field Program Supervisor
Paul Rosenfeld, Ph.D.

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 highly trained scientists and professionals capable of identifying and measuring agents of environmental concern; evaluating the health, environmental, and all other impacts of such agents; developing means for their effective management; and evaluating alternative policies directed at improving and protecting environments. Such training is accomplished through several degree programs which offer specialized study in selected academic areas of environmental health sciences such as air pollution, environmental chemistry, environmental management, environmental toxicology, 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 M.S. and Ph.D. degrees in Environmental Health Sciences and, through the School of Public Health, the M.P.H. and Dr.P.H. degrees with a specialization in environmental health sciences (see Public Health Schoolwide Programs). In addition, a unique doctoral degree (Doctor of Environmental Science and Engineering — D.Env.) is offered by the interdepartmental Environmental Science and Engineering Program which is administered through the department.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Environmental Health Sciences.

Environmental Health Sciences

Upper Division Courses

100. Introduction to Environmental Health. (4) Lecture, three hours; discussion, one hour. Preparation: one course each in chemistry and biology. Introduction to environmental health, including coverage of sanitary principles and chronic and acute health effects of environmental contaminants. P/NP or letter grading.
M166. Environmental Microbiology. (4) (Same as Civil Engineering M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Civil Engineering 153. Microbial cell and its metabolic capabilities, microbial genetics and its potentials, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course content. Limited enrollment. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.

Graduate Courses


200C. Environmental Health Sciences for Nursing Students. (3) Lecture, three hours; preparation: one year of undergraduate biology, calculus, chemistry, and physics. Limited to seniors. Introduction to physical agents, including noise, thermal environment, ionizing radiation, and nonionizing radiation. Exploration of exposure assessment of air pollution in urban areas, occupational exposure assessment for epidemiological inferences, exposure characteristics, air pollution and excess mortality, assessment of exposure to mixture chemicals, multimedia and ecological exposure assessment. Letter grading.


203. Seminar: Ecotoxicology. (2) Seminar, two hours. Discussion topics on ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

204. Seminar: Exposure Assessment. (2) Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary by term and include aspects of population activity, microenvironments, types of monitoring (outdoor, indoor, personal, biomonitors), and multimedia sources of exposure. S/U grading.

205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environmental health sciences doctoral students. Presentation of current research of environmental health sciences doctoral students. May be repeated for credit. S/U grading.


211. Science and Politics of Environmental Regulation: Coastal Pollution — Sources and Solutions. (4) Lecture, three hours. Designed for graduate students. Overview of environmental regulations that protect coastal resources, regulatory agencies that have jurisdiction over coastal resources, past and current coastal pollution problems in the U.S., solving pollution problems through treatment, advocacy, enforcement, restoration, remediation, and watershed management. Letter grading.

212. Applied Ecology. (4) Lecture, four hours. Preparation: one ecology course. Techniques and models of systems analysis and concepts of general system theory as applied to comprehensive study, planning, evaluation, and management of environmental decision systems. Experimentation with relevant computer programs. S/U or letter grading.


231. Environmental Decision Systems Analysis. (4) Lecture, four hours; discussion, one hour. Requisites: course 230. Techniques and models of systems analysis and concepts of general system theory as applied to comprehensive study, planning, evaluation, and management of environmental decision systems. Experimentation with relevant computer programs. S/U or letter grading.


234. Critical Readings in Environmental Policy for Scientists and Engineers. (4) Lecture, one hour; discussion, three hours. Requisites: course 230 or 235. Designed for graduate science and engineering students. Critical analysis of environmental regulatory policies, regulations, and decisions and their scientific basis. Literature review, classroom presentation, and research paper required. Letter grading.

235. Quantitative Methods for Environmental Assessment. (4) Lecture, four hours; discussion, one hour. Preparation: bachelor’s degree in science, engineering, or public health, one term of statistics, one year of advanced mathematics. Introduction to quantitative methods for evaluating health effects and environmental impacts of human activities; concepts of environmental assessments and planning. Assignments include statistics analysis, risk assessment, economic methods. Examples from U.S. and California regulations, policy, project environmental assessments. Letter grading.

M239. Pollution Prevention. (2) (Same as Urban Planning M222C.) Lecture, four hours. Designed for graduate students. Series of talks by academics, policymakers, industry representatives, and public interest advocates addressing opportunities for and obstacles to pollution prevention, including several case studies of specific policy and industry initiatives in this area. S/U grading.

240. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on the human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organs systems. S/U grading.

M242. Toxicokinetics. (4) (Formerly numbered 242.) (Same as Molecular Toxicology M242.) Lecture, two hours; discussion, two hours. Requisite: course 240. Examination of biochemical, cellular, and molecular mechanisms by which chemicals induce toxicity in wide spectrum of organs and systems. Letter grading.

243. Embryology and Teratology. (4) Lecture, four hours. Requisite: course 240. Description of normal mammalian embryology at whole animal, cellular, and molecular levels and of biological, chemical, or physical perturbations of normal processes which produce congenital malformations. Letter grading.

244. Reproductive and Developmental Toxicology. (4) Lecture, four hours. Requisite: course 240. Introduction to current theory and research related to reproductive and developmental toxicology. Letter grading.

M245. Laboratory in Toxicological Methods. (2) (Same as Molecular Toxicology M245 and Pharmacology M234C.) Lecture, one hour; laboratory, four to five hours. Survey of experimental techniques used in study of toxic substances. Experiments conducted within known toxic to demonstrate its effects at molecular, cellular, and tissue levels. Presentation of principles of techniques and methods of data analysis at discussion session prior to laboratory. Letter grading.

M249. Toxics Reduction: Science, Engineering, and Policy Issues. (4) (Same as Urban Planning M262A.) Lecture, three hours. Requisite: Urban Planning 250. Public health experts, industrial engineers, and planners are being asked to assess risks biologically active chemicals present and to take such risks into account in planning process. Examination of potential for toxic reductions and current state of government and industry activities in this area. Letter grading.

250D. Industrial Hygiene Practice. (2) Seminar, two hours. Requisites: courses 200A, 200B. Presentation of topics that are relevant to current practice of occupational health. Topics include discussions of regulatory framework, risk assessment and risk communication, legislation and emerging occupational health issues. S/U grading.

251A-251B. Occupational Diseases: Recognition and Prevention. (1-1) Seminar, one hour. Critical topics in occupational medicine, with emphasis on disease manifestations and prevention. Letter grading.

252D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. S/U or letter grading.

252E. Identification and Measurement of Gases and Aerosols. (4) Lecture, three hours; discussion, one hour. Preparation: one year each of chemistry, physics, and calculus. Theoretical and practical aspects of industrial hygiene sampling and measurement of gases and aerosols. Letter grading.

252F. Industrial Hygiene Measurements Laboratory. (3) Laboratory, three hours. Corequisites: courses 252D, 252E. Limited to industrial hygiene majors. Laboratory methods for sampling and measurement, and analysis of gases, dusts, and aerosols found in occupational environment. S/U or letter grading.
252G. Industrial and Environmental Hygiene Assessment. (4) Lecture, one hour; discussion, two hours; laboratory, two hours; outside study, four hours. Requisites: courses 200A, 200B, 252D, 252E, 252F. 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.

253A. Physical Agents in Work Environment. (2) (Formerly numbered 253.) Lecture, two hours. Preparation: one year of physics. Physics, measurement methods, health effects, and control methods for radiation (ionizing and nonionizing), noise, and heat in the workplace environment. S/U or letter grading.

253B. Physical Agents Laboratory. (2) Laboratory, two hours. Requisite: course 253A. Hands-on experience in use of survey instruments for evaluation of worker exposure to various physical agents encountered in work environment. Letter grading.

254. Health Hazards of Industrial Processes. (4) Lecture, two hours; four field trips. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

255. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisite: course 252D. Preparation of control strategies to industrial environments, including general and local exhaust ventilation, air cleaning equipment, and respiratory protection. S/U or letter grading.

256. Biological and Health Surveillance Monitoring in Occupational/Environmental Health. (4) Lecture, three hours; discussion, one hour; assignments, three hours. Principles and applications of biological monitoring and health surveillance to assess occupational and environmental exposures to organic and inorganic chemicals and physical factors. Letter grading.

257. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course 240, Epidemiology 100. Designed to provide students with opportunity to review scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of the literature. Attention specifically to interface of science and regulatory standards. S/U or letter grading.

258. Identification and Analysis of Hazardous Insecticides. (2) Seminar, two hours. Requisite: course 259A. Emphasis on research methodology as applied to prevention and control of worker-related musculoskeletal disorders. Topics include applied anthropometry, biomechanical modeling, strength measurement, postural analysis, fatigue, and medical surveillance of cumulative traumatic disorders. S/U grading.

259A. Occupational Safety and Ergonomics. (4) (Formerly numbered 259.) Lecture, four hours. Discussion of design and modification of products and industrial manufacturing processes to eliminate or control hazards arising out of mechanical, electrical, thermal, chemical, and other potential energy sources and ergonomic risk factors. Discussion of case studies in industrial manufacturing, construction, and agriculture. Letter grading.

259B. Occupational Ergonomics Laboratory. (4) Laboratory, four hours. Requisite or corequisite: course 259A. Hands-on experience using typical instruments and analytical techniques utilized in professional practice and research in occupational ergonomics. Laboratory exercises cover anthropometry, force and strength measurements, biomechanical modeling and static prediction, energy expenditure prediction, posture and motion analysis, use of goniometer, and computer-aided workstation design. Letter grading.


259E. Occupational Safety and Health Program Management. (4) Lecture, four hours. Designed for graduate students. Introduction to application of management principles and techniques for management of safety and health and loss control programs. Letter grading.

259F. Accident Investigation and System Safety. (4) Lecture, four hours. Requisite: course 259A. Introduction to retrospective and prospective safety hazard analysis, system safety, computer-aided hazard analysis, and methodology and process of accident investigation. Letter grading.

259G. Fire Prevention, Protection, and Facility Design. (3) Lecture, three hours. Requisite: course 259A. Introduction to application of fire sciences, engineering, and management principles to prevention, suppression, and control of fires and explosions and protection of people and property from fire or explosion damage and injury. Letter grading.

M259H. Biomechanics of Traumatic Injury. (4) (Formerly numbered 259H.) (Same as Biomedical Engineering 240H.) Lecture, 14 hours; outside study, eight hours. Designed for graduate students. Introduction to applied biomechanics of accidental injury causation and prevention; discussion of mechanisms of injury that result in bone and soft tissue trauma; discussion of mechanisms of healing for effective rehabilitation after traumatic injury. Letter grading.


M266B. Nonpoint Pollutant Sources and Transport Phenomena. (2) (Same as Environmental Science M266B.) Seminar, two hours. Critical analysis course with focus on advanced topics in origins, transport, and fate of nonpoint source pollutants, especially in runoff from urban watersheds. Basics of transport of humic substances, methods to identify sources of pollutants in urban runoff, analysis of urban activities as potential sources, and methods to estimate loadings from particular urban watersheds. S/U or letter grading.

269A. Coastal Ecological Processes and Problems. (2) Lecture, four hours. Advanced study and analysis of current topics in environmental health sciences. Discussion of current research and literature in research speciality of faculty member teaching course. S/U grading.

269B. Teratogenesis. (2) Advances in Environmental Evaluation and Conflict Management.

269C. Research Methods in Pollution Prevention Analysis. (2) Molecular Topics in Biomedical and Environmental Sciences.

269D. Toxicology and Exposure Assessment of Toxic Chemicals.

269E. Advances in Aerosol Technology.

269F. Occupational Safety and Ergonomics.
501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

506. 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 M.P.H. and M.S. minimum total course requirement. May be repeated for credit. S/U or letter grading.

507. 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.

508. Master's Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward M.P.H. and M.S. minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

509. Doctoral Dissertation Research. (2 to 8) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

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**Environmental Science and Engineering**

**Interdepartmental Program School of Public Health**

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**Field Program Supervisor**

Paul Rosenfeld, Ph.D. (Environmental Health Sciences)

**Scope and Objectives**

The UCLA Environmental Science and Engineering (ESE) Program 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 was afforded by traditional Ph.D. programs. As the program enters its third decade, Dr. Libby's vision has in fact been realized with the evolution of the program from an experimental approach into a key component of the overall effort to train environmental professionals at UCLA.

To date the program has awarded the Doctor of Environmental Science and Engineering (D.Env.) degree to over 200 students, and UCLA remains unique in the country in awarding such a degree. Many graduates have gone on to occupy critical positions in environmental research, remediation, and policy throughout the major environmental agencies in California and the nation. Other graduates have risen to senior positions in private sector companies conducting environmental research and remediation. Still other graduates are applying scientific solutions to environmental problems at national laboratories such as Oak Ridge and Lawrence Livermore Laboratories and at research institutes such as the RAND Corporation.

Although many participating interdepartmental faculty members are from the College of Letters and Science and the Henry Samueli School of Engineering and Applied Science, the program is administered through the School of Public Health where a core faculty is based in the Department of Environmental Health Sciences. No undergraduate major or master's degree is offered.

The program is designed to train multidisciplinary professionals 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 through nine-month problems courses. Because the D.Env. degree is not a specialized research degree in the manner of a Ph.D., the usual extended research training period in residence at UCLA associated with a Ph.D. is replaced by an 18- to 24-month internship in an appropriate government agency, national laboratory, or private industry, during which in-depth study of an environmental problem leads to a dissertation.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees; available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degree**

The Environmental Science and Engineering Program offers the Doctor of Environmental Science and Engineering (D.Env.) degree.

**Environmental Science and Engineering**

**Graduate Courses**

M255. Introduction to Statistical Analysis of Environmental Data. (4) (Same as Statistics CM255.) Lecture, three hours. Designed for graduate students. Routine intermediate applied statistics course, with emphasis on applications to environmental data and statistical computing with the language R. Statistical analysis and scientific report from real data required. S/U or letter grading.

M266. Nonpoint Pollutant Sources and Transport Phenomena. (2) (Same as Environmental Health Sciences M256.) Seminar, two hours. Critical analysis course with focus on advanced topics in origins, transport, and fate of nonpoint source pollutants, especially in runoff from urban watersheds. Basics of transport of human substances, methods to identify sources of pollutants in urban runoff, analysis of urban activities as potential sources, and methods to estimate loadings from particular urban watersheds. S/U grading.

400A. Environmental Science and Engineering Problems Course. (8) Discussion, eight hours. Primarily designed for environmental science and engineering doctoral students. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. In Progress grading (credit to be given only on completion of course 4000).
EPIDEMIOLOGY
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Visiting Professor
Robert J. Kim-Farley, M.D., Ph.D.

Scope and Objectives
Epidemiology has been defined as the study of the distribution and determinants of disease and injury in human populations. Epidemiologists study variations of disease in relation to such factors as age, sex, race, occupational and social characteristics, place of residence, susceptibility, exposure to specific agents, or other pertinent characteristics. Also of concern are the temporal distribution of disease, examination of trends, cyclical patterns, 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 and to the control or prevention of disease. What distinguishes epidemiology from other clinical sciences is the focus on health problems in population groups rather than in individuals.

Epidemiology is a young field with constantly expanding boundaries. The range of activities that may be at least partly epidemiologic includes determination of the health needs of populations, 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 borrowed from other fields such as microbiology, immunology, medicine, statistics, demography, and medical geography.

There is a growing core of purely epidemiologic methodology that includes not only statistical methodology and principles of study design, but a unique way of thinking that is beyond the rote memorization of rules. The contribution of epidemiology to any study involving groups of people is being increasingly recognized and demanded. Epidemiologists may work in many settings, including international health agencies, state and local health departments, federal government agencies and health programs, health maintenance organizations, colleges and universities, and numerous research projects privately and publicly sponsored.

The objective of the Department of Epidemiology fall into three broad categories — research, teaching, and community service. Degrees offered include the M.S. and Ph.D. in Epidemiology and, through the School of Public Health, the M.P.H. and Dr.P.H. 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, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Epidemiology.

Epidemiology

Lower Division Course

88. Lower Division Seminar: Special Topics in Epidemiology. (4) Seminar, three hours; outside study, nine hours. Preparation: Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in epidemiology approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

Upper Division Courses

100. Principles of Epidemiology. (4) Lecture, two hours; discussion, four hours. Preparation: one full biological sciences course. Not open for credit to students with credit for course 200. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Limited to seniors. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.

Graduate Courses

200. Epidemiology I. (4) Lecture, two hours; laboratory, four hours. Preparation: one full biological sciences course. Preparation: Biostatistics 100A (may be taken concurrently). Not open for credit to students with credit for course 100. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.
201A-201B. Epidemiologic Methods I, II, (6-6) Lecture, four hours; discussion, two hours; outside study, 12 hours. Prerequisites: course 100A or 100B. Designed for graduate students and medical doctors seeking broad knowledge and detail on prevalent and emerging infectious diseases, including influenza, acute respiratory infections, cholera/diarrheal disease, tuberculosis, hepatitis B, malaria, measles, neonatal tetanus, HIV/AIDS, pertussis (whooping cough). S/U or letter grading.

222. Arthropods as Vectors of Human Diseases. (4) Lecture, four hours. Requisites: courses 100 or 200, 220. Comprehensive overview of morphology, systematics, behavior, and transmission. Analysis of frequency of, risk factors for, and possibilities of preventing infections in the elderly populations. Comparison of effort outcomes (morbidity and mortality) in younger vs. older populations. Emphasis on methodologic issues of studying elderly people. S/U or letter grading.


226. Public Health Responses to Bioterrorism. (4) Lecture, four hours. Mitigation of bioterrorism falls outside traditional public health programs and public health education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.


229. Epidemiology of Foodborne Illnesses. (2) Lecture, two hours; discussion, two hours. Requisites: courses 200, 220. Food poisoning is a significant cause of morbidity and mortality in both developing and developed world. Examination of epidemiologic agents of food poisoning and factors that allow them to become agents of disease transmission. S/U or letter grading.


231. Principles of Control of Infectious Diseases. (2) Lecture, two hours. Requisites: courses 200, 220. Comprehensive study of tools for control of infectious diseases and application of these tools in public health programs to achieve epidemiologic impact on disease reduction, elimination, or eradication. Letter grading.

240. Cardiovascular Epidemiology. (2) Lecture, two hours. Topics include definition, pathogenesis, descriptive epidemiology, magnitude of risk factors, strategies for prevention, metabolic, and epidemicology of diabetes, hypertension, and chronic lung disease. Letter grading.

241. Issues in Cancer Prevention Research and Policy. (2) Lecture, two hours. Emphasis on understanding of promise of preventive strategies for cancer and of philosophical, scientific, and practical challenges that these strategies entail. Designed to build on ideas that move from general to more specific topics. S/U grading.

252. Epidemiology of Assault, Homicide, and Suicide. (2) Lecture, two hours; discussion, one hour. Requisite: course 100 or 200, Biostatistics 100A. Lecture and laboratory presentation and evaluation of epidemiologic research approaches to study of violent injury, including description of incidence, study design, risk factor analysis, and control evaluation. S/U or letter grading.


M255. Keeping Children Safe: Causes and Prevention of Pediatric Injuries. (2) (Same as Community Health Sciences M255.) Lecture, two hours. Injuries have been leading killers of children in the U.S. for decades. Children have specific risk factors for injuries, many of which are preventable. Presentation of approaches to research and prevention of pediatric injuries. Letter grading.

259. Disaster Epidemiology. (2) Lecture, two hours. Requisite: course 100 or 200, Community Health Sciences 295. Introduction to epidemiologic methodology to disaster management including surveillance, loss estimation, risk factor assessment, intervention, and evaluation. Letter grading.

260. Environmental Epidemiology. (2 or 4) Lecture, two hours; discussion, two hours. Requisite: course 100 or 200. Methodological problems and approaches to epidemiology for assessing health impact of major types of environmental exposure. S/U or letter grading.

261. Occupational Epidemiology. (4) Lecture, two hours; discussion, two hours. Requisite: course 100 or 200. Methodological considerations, approaches, and limitations in epidemiological studies of occupational groups and environments. S/U or letter grading.

262. Seminar: Environmental and Occupational Cancer Epidemiology. (2) Seminar, two hours. Requisite: course 100 or 200. Discussion of examples of recent epidemiologic studies, with focus on environmental and occupational exposures, especially in areas where controversies have arisen such as for electromagnetic fields and childhood leukemia, and bladder cancer associated with exposure to benzene levels of drinking water. S/U or letter grading.

263. Exposure Assessment in Occupational and Environmental Epidemiology. (2) Lecture, two hours; discussion, two hours. Requisite: course 100 or 200, Biostatistics 100A. Exposure assessment is often most challenging aspect of epidemiologic studies of occupational and environmental hazards. Focus on integration of industrial hygiene principles and epidemiologic methods to improve exposure assessment protocols and exposure analyses for occupational/environmental health studies. S/U or letter grading.

264. Introduction to Pharmacoepidemiology. (2) Lecture, two hours. Requisite: course 260 or 200. Pharmacoepidemiology is application of epidemiologic knowledge, reasoning, and methods to study of effects and uses of drugs. Survey of contemporary roles of pharmacoepidemiology in drug development and public health, with historical background of its evolution and projections of future prospects. S/U or letter grading.

270. Epidemiology and Health Policy. (2) Lecture, two hours. Requisite: courses 100 or 201A and 201B, Biostatistics 100A, Community Health Sciences 295. Application of epidemiologic methods and findings in health services research, population health planning, and health policy to provide framework for integration of epidemiologic and public health knowledge. Emphasis on conceptual and methodologic issues confronting researchers, clinicians, planners, administrators, and legislators. S/U or letter grading.

271. Assessing Validity of Complementary and Alternative Healthcare Procedures. (2) Lecture, two hours. Exploration of validity of alternative and complementary healthcare procedures with special emphasis on disorders in field of neurology. Focus on methods of analyzing clinical and experimental research published in journals which provide support or refute claims by practitioners of these procedures. Primary procedures include acupuncture, chiropractic, manipulation, massage, and herbal remedies. Letter grading.

280. Connecting Epidemiological, Medical, and Mathematical Aspects of Infectious Diseases. (4) Lecture, four hours. Requisites: courses 200, 220. To deepen and further integrate knowledge on infectious diseases, focus on new tools to enable in-depth study. Each to be presented and discussed from three viewpoints that facilitate greater understanding: epidemiology, immunology and molecular basis, and epidemiologic and mathematical analysis. Letter grading.

290. Seminar: Epidemiology — Infectious and Tropical Disease. (2) Seminar, two hours. Review of research on specific diseases of public health importance. May be repeated for credit. S/U or letter grading.

291. Seminar: Epidemiology — Methodology. (2) Seminar, two hours. Requisite: course 100 or 200. Review of current epidemiologic research contained in recent literature. May be repeated for credit. S/U or letter grading.


294. Epidemiology and Policy of Occupational and Environmental Health Issues. (2) Discussion, two hours. Requisites: courses 100 (or 200) and/or 260. Introduction to demands that go beyond “pure science," with focus on issues such as risk communication, potential influence (and ethics) of oversight panels and external review groups on presenting results and conclusions, and interest of government agencies. S/U or letter grading.


400. Field Studies in Epidemiology. (2 or 4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file place- ment and program training documentation on form available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units may be applied toward 44-unit minimum total required for degree. Letter grading.


402. Advanced Data Analysis in Occupational and Environmental Epidemiology. (4) Lecture, two hours; laboratory, two hours. Preparation: one data management course. Requisites: courses 201A and 201B, or 201A and 261. Development of strategies for analyzing occupational and environmental data. Use of multivariate data analysis techniques typically used in occupational cohort studies, nested case-control studies, and ecologic studies in environmental epidemiology. S/U or letter grading.

403. Computer Management and Analysis of Health Data Using SAS. (4) (Formerly numbered M403B.) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Requisites: Biostatistics 100A, 100B (100B may be taken concurrently). Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional and longitudinal population-based data sets to be used throughout to illustrate principles of data management and analysis for addressing biostatistical and health-related hypotheses. Letter grading.

406. Preparing for Smallpox or Other Bioterrorist Events. (2) Lecture, two hours. Major public health issue is massive effort to prepare for possible bioterrorist events. Practical application of principles of epidemiology and public health in preparing for smallpox or other bioterrorist events. Letter grading.

410. Management of Epidemiologic Data. (2) (Formerly numbered 410B.) Lecture, two hours. Data management for various epidemiologic study designs, confidentiality concerns; data management systems; introduction to mainframe computer. S/U or letter grading.

411. Resource Resources in Epidemiology. (2) Lecture, one hour; discussion, one hour. Instruction and practical experience in use of varied bibilographic aids and sources of information, building of reference files, and presentation of research findings for publication. Letter grading.

412. Public Health Surveillance. (2) Lecture, two hours. Requisites: course 100 or 200, Biostatistics 100A. Overview of public health surveillance methodology, including (1) design, implementation, and evaluation of surveillance systems, (2) analysis and interpretation of surveillance data, and (3) application of surveillance methods to specific health-related outcomes. Letter grading.

414. Practical Epidemiologic Investigations. (2 or 4) Lecture, one or two hours; laboratory, one or two hours. Requisite: course 100 or 200. Practical approaches to epidemic investigations presented through problem sets based on actual outbreaks. Data collection, analysis, and written presentation of findings. Letter grading.

415. Epidemiology for Developing Countries. (4) Lecture, four hours. Requisites: courses 100 and/or 200, 201A. In-depth study of epidemiology in Third World countries. Practical assistance for planning and organizing surveys, including use of microcomputers to develop and test the questionnaire, select the sample, process and analyze data, and prepare final report. Letter grading.


M418. Rapid Epidemiologic Surveys in Developing Countries. (4) (Formerly numbered 418.) (Same as Community Health Sciences M418.) Lecture, four hours. Requisites: courses 100 and/or 200, 201A. Practical application of epidemiology, computer science, and surveys in the Third World context. Practical assistance for planning and organizing surveys, including use of microcomputers to develop and test the questionnaire, select the sample, process and analyze data, and prepare final report. Letter grading.

419. Applications in Musculoskeletal Epidemiology. (2) Lecture, two hours; laboratory, two hours. Requisites: course 100 or 200 (may be taken concurrently). Introduction to principles and practical issues of epidemiologic data analysis for addressing musculoskeletal-related hypotheses. Use of data sets from relevant components of National Health Interview Survey, and musculoskeletal-related epidemiologic studies. Use of SAS programming language, with applications in both UNIX and Windows. Letter grading.
495. Teacher Preparation in Epidemiology. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor; department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward M.P.H. and M.S. 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 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 8) Tutorial, to be arranged. Only 4 units may be applied toward M.P.H. and M.S. 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 8) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Ethnomusicology

School of the Arts and Architecture

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Scope and Objectives

Ethnomusicology is a research field that combines the various techniques of musical analysis with the methods of the social sciences and humanities (i.e., the study of cultural systems including music). Although originally focused on folk, tribal, and Asian classical music traditions, ethnomusicology at UCLA includes the study of all styles of music in the world, including popular music, jazz, and even Western classical music when approached from a cultural analysis perspective. The undergraduate and graduate programs in ethnomusicology provide students with broad knowledge of world musics and methods currently used in their study.

The object of systematic musicology, a multidisciplinary field, is to answer fundamental questions on the nature and properties of music, not only as art but as empirical phenomena. At UCLA, this research orientation integrates the perspectives of aesthetics and philosophy, music theory, acoustics, sociology, psychology, organology, and semiotics, any of which can be cross-cultural, focusing on the systems or models discernible through these disciplines.

Undergraduate Study

Ethnomusicology B.A.

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 interview/audition. Applicants who are unable to travel to UCLA have the option of submitting a videotape of musical performance, following departmental guidelines.

Preparation for the Major

Required: Ethnomusicology 10A, 10B, 10C, 20A, 20B, 20C, and 12 units of performance organizations or private instruction in music (courses 91A through 91Z or 92).

The Major

Ethnomusicology Concentration

Required: (1) Group A — Ethnomusicology 175 or 181, 180, 190; (2) Group B — seven courses selected from 105 through 121, 128, M131 through 174, C176, C178, C179, C188, 196 through 199S; (3) Group C — 12 units from courses 191A through 191Z or 192.

Jazz Studies Concentration

Required: Ethnomusicology M110A, M111, 120A or 120B, 127, 129A, 129B, 129C, 180 or 181, 186, 12 units of course 171, 12 units of course 177, Music History 150, and three elective courses from Ethnomusicology 105 through 121, 128, M131 through 174, C176, C178, C179, C188, 196 through 199S.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Ethnomusicology.

Ethnomusicology

Lower Division Courses

10A-10B-10C. World Music Theory and Musician-ship. (4-4-4) Lecture, two hours; discussion, four hours; laboratory, two hours. Limited to Ethnomusicology and World Arts and Cultures majors. Course 10A is requisite to 10B, which is requisite to 10C. Introduction to and participation in musical systems of selected world cultures through aural and written notations, vocal and instrumental skills, melodic and rhythmic dictation, improvisation, and composition.

15. American Life in Music. (4) Lecture, three hours. Impact of ethnicity, race, gender, and other social processes on American music in the late 20th century; use of and creativity in music to respond to and shape contemporary social processes. P/NP or letter grading.

20A-20B-20C. Musical Cultures of the World. (4-4-4) Lecture, four hours; discussion, one hour. Survey of musical cultures of the world (excluding Western art music), role of music in society and its relationship to other arts; consideration also to scale structure, instruments, musical forms, and performance standards. 20A. Europe and the Americas; 20B. Near East and Africa; 20C. South Asia, Southeast Asia, and the Far East.

92. Private Instruction in Music. (2) Studio, one hour. Limited to Ethnomusicology majors. Private or semiprivate music instruction with a distinguished community-based musician, which must be arranged by students and approved by course instructor. May be repeated for credit without limitation.

Upper Division Courses

105. Music, Musicians, and Music Industry. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduate nonmajors from wide array of backgrounds and interests. How music industry functions and how products are created, marketed, and consumed. Basic information on production of recordings and legal issues faced by musicians, students, and scholars who use music in their work. Letter grading.


106B. Contemporary Native American Indian Music. (4) Lecture, three hours; discussion, one hour. Contemporary Native North American musical expression, including popular styles (funk, country, rock), intratribal, and ceremonial genres (lulloway), syncretic religious music, and traditional/melodic Pan-Indian music. P/NC or letter grading.

107. South American Indian Music. (4) Lecture, four hours; outside study, eight hours. Native South American traditional music and its role in indigenous societies. Topics include relationship between speech and song, use of music by shamans, musical structures, and use of indigenous music in creating nationalism and popular music styles. Letter grading.

M108A-108B. Music of Latin America. (4-4) Lecture, four hours; discussion, one hour. Course M108A is not requisite to 108B. Survey of traditional and contemporary musical culture. M108A, Mexico, Central America; M108B, South America. (Same as Chicana and Chicano Studies M108A); 108B, Latin South America.

M109. Women in Jazz. (4) (Same as Afro-American Studies M109 and Women's Studies M109J.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from the 1880s to the present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NC or letter grading.

M110A-M110B. African American Musical Heritage. (4-4) (Same as Afro-American Studies M110A-M110B.) Lecture, four hours; discussion, one hour. Survey of African music and its impact on the Americas; survey of development of various African American musical genres from slave era to the present, including those found in the West Indies and Central and South America.

M111. Ellingtonia. (4) (Same as Afro-American Studies M111.) Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington's music, known as "Ellingtonia," is one of the largest and perhaps most important bodies of music ever produced in the U.S. Covers the many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Cotie Williams, and Mercer Ellington.

CM112. African American Music in California. (4) (Same as Afro-American Studies CM112A.) 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 CM12. P/NC or letter grading.

113. Music of Brazil. (4) Lecture, three hours. History of ethnic and art music in Brazil, with some reference to Portuguese antecedents. M115. Musical Aesthetics in Los Angeles. (4) (Same as Chicana and Chicano Studies M115.) Lecture, three hours. Confronting aesthetics from classical perspective as art in intuition, examination on a cross-cultural basis of diverse musical contexts within the vast multicultural metropolis of Los Angeles, with focus on various musical networks and specific experiences of the Chicano/Latino, African American, American Indian, Asian, rock culture, Western art music tradition, and the commercial music industry. M116. Chicano/Latino Music in the U.S. (4) (Same as Chicana and Chicano Studies M116.) Lecture, four hours; discussion, one hour. Historical and analytical examination of musical expression of Latino peoples who have inhabited present geographical boundaries of the U.S.

117. American Popular Music. (4) Lecture, four hours; discussion, one hour. Survey of history and characteristics of major 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/NC or letter grading.

118. Development of Rock. (4) History of rock from the 1950s to the 1970s. In-depth survey of stylistic trends illustrated by pertinent examples and accompanied by extensive musical analysis. M119. Cultural History of Rap. (4) (Same as Afro-American Studies M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and allied forms, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NC or letter grading.

120A-120B. Development of Jazz. (4-4) Lecture, four hours; discussion, one hour. Introduction to jazz; its historical background and its development in the U.S.

121. Cross-Cultural Perspectives in Jazz. (4) Exploration of assimilation and retention of jazz from the U.S. in various cultural traditions, such as the African, American, and Asian. Concurrently scheduled with courses C212A-C212B. Letter grading.

122A-122B-122C. Jazz Styles and Analysis. (4-4-4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Music History majors. In-depth analysis of jazz styles and repertoires intended for students with music backgrounds. Concurrently scheduled with courses C222A-C222B-C222C Letter grading. 122A. Early Jazz to Swing Era; 122B. Bebop to Avant-garde; 122C. Jazz since the Sixties.

123. Music of Bebop. (4) Lecture, three hours. Study of jazz band playing artistry of compositions and song forms, styles of improvisation, and developments from 1940 to the present. 125A-125B-125C. Jazz Composition and Arranging. (2-2-2) Lecture, two hours; outside study, four hours. Examination of various aspects of jazz composition. Differentiation between improvisation and notated composition, as well as between composition and arranging, and introduction to basic arranging concepts. Letter grading. 125A. Early Jazz to Swing Era; 125B. Bebop to Avant-garde; 125C. Jazz since the Sixties.

127. Jazz Keyboard Harmony. (1) (Formerly numbered M127.) Laboratory, two hours. Study of jazz harmony through use of piano keyboard. Development of basic keyboard skills in order to manipulate essential chord voicings and harmonic passages in jazz music. Instruction in basic jazz theory. Letter grading.

128. Folk Music of Eastern Europe. (4) Introduction to forms and styles of traditional music in Eastern Europe (including the Balkans). Historical and ethnological aspects of the music illustrated by numerous recorded examples from major cultural subdivisions of the area.

129A-129B-129C. Jazz Theory and Improvisation. (2-2-2) (Formerly numbered M129A-M129B-M129C.) Lecture, four hours; outside study, eight hours. Elements of jazz theory and improvisation. Letter grading. 129B. Basic jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply those elements to personal efforts in improvisations. 129B. Requisite: course 129A with a grade of C or better. Limited-level jazz harmonic constructions. 129C. Requisite: course 129B with a grade of C or better. Advanced-level jazz harmonic constructions.

M131. Development of Latin Jazz. (4) (Same as Music M131J.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of musical styles referred to today as "Latin" jazz. P/NC or letter grading.

C136A-C136B. Music of Africa. (4-4) (Formerly numbered 136A-136B.) Concurrently scheduled with courses C236A-C236B. Letter grading. 136A. Lecture, four hours. Introduction to music of Africa through general discussion of select topics such as the continent and its peoples, function, the musician, instruments, musical structure and related arts, and contemporary music. 136B. Lecture, four hours; discussion, one hour. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music.

146. Folk Music of South Asia. (4) Lecture, four 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.

147. Survey of Classical Music in India. (4) Examination of melodic, metric, and formal structures of Indian classical music in context of religious, sociocultural, and historical background of the country.

C150. Music and Politics in East Asia. (4) Lecture, four hours. Limited to Ethnomusicology, Music, History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. Political imperatives have long had a direct and often explicit impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C250. Letter grading.

C156A-C156B. Music in China. (4-4) Letter grading. 156A. Lecture, four hours. Requisite: course 20C. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced music currently widespread in China, including musical analysis of different genres; examination of contexts in which they exist. Investigation of profound effect of Confucianism and Confucian philosophies on music. Concurrently scheduled with course C256A. 156B. Lecture, three hours; laboratory, two hours. Requisite: course C156A. Introduction to various notational systems. Analysis of oral music.

185A-158B-158C. Studies in Chinese Instrumental Music. (4-4-4) Lecture, three hours; laboratory, one hour. 158A. Study of major sources, paleography, theory, and philosophy of the Ch’in, including transcription and analysis. 158B. Study of literature, major sources, paleography, theory, and philosophy of the P’i, P’a, including transcription and analysis. 158C. Comprehensive study of Chinese musical instruments, classification system, specific musical notation, and use in context of Chinese society. C159. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduates in 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 styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibe-tor-Burman peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.

160. Survey of Music in Japan. (4) (Formerly numbered 160A.) Lecture, three hours. Survey of main genres of Japanese traditional music, including Galagaku, Buddhist chant, Biwa music, Koto music, Shamisen music, and music used in various theatrical forms. P/NP or letter grading.

C159. Music, Science, and Technology. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Designed for Ethnomusicology, Music, and Music History majors. Application of science and technology for both creation and dissemination of music. Introduction to tools and techniques such as CD mastering, digital sampling, recording, and music synthesis, as well as scientific principles underlying such technologies. Concurrently scheduled with course C269. Letter grading.

170. Acoustics. (4) Lecture, four hours; discussion, one hour. Interrelationship of acoustical and musical phenomena. Tuning systems, consonance and dissonance, tone quality. Lecture, demonstration, and discussion; tours of instrumental collections and acoustical research facilities.

171. Instruction in Advanced Jazz Performance. (2) Laboratory, one hour. Preparation: advanced performance ability as demonstrated by audition. Study of jazz repertory and techniques for specific instruments and voice. May be repeated for a maximum of 12 units.

172A. Cognitive Psychology of Music. (4) Lecture, four hours; discussion, one hour. Designed for nonmajors. Introduction to the psychology of music; historical background and the broad field of study, including use of music as a stimulus, tests and measurements, and related modes of musical behavior. P/NP or letter grading.

174. Aesthetics of Music. (4) Lecture, four hours; discussion, one hour. Designed for nonmajors. Historical survey of musical aesthetic thought and practice. Selected readings and musical examples. May be repeated for a maximum of 10 units.


C176. Psychology of Film Music. (4) Lecture, four hours; outside study, eight hours. Exploration of music in film, animation, and dance through lens of cognitive psychology, with focus on interpretation of film music relative to model of musical meaning. Concurrently scheduled with course C276. Letter grading.

177. Jazz Compositional Analysis. (Formerly numbered M177.) Activity, six hours. Small group performance of various styles in ensembles of three to 10 musicians. May be repeated for a maximum of 12 units. Letter grading.


186. Senior Recital or Research Paper. (No credit) (Formerly numbered M186.) Tutorial. Preparation and performance of one-hour senior recital of jazz repertoire or preparation of a senior paper (topic and length to be approved by assigned adviser). P/NP grading.

C188. Music Industry. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Music History majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in the 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course C286. Letter grading.


191A-191Z. Advanced World Music Performance. (2 each) Lecture, three hours; outside study, nine hours. Limited to Ethnomusicology majors. Advanced study of traditional and instrumental world music. May be repeated for credit without limit. May be repeated for credit without limit. May be repeated for credit without limit.


192. Advanced Private Instruction in Music. (2) Studio, one hour. Preparation: two years of courses 91A through 91Z or 92. Limited to Ethnomusicology majors. Advanced private instruction in music with a distinguished community-based musician. May be arranged by students and approved by course instructor. May be repeated for credit without limit. May be repeated for credit without limit.

196. World Music Teaching Practicum. (4) Seminar, two hours; fieldwork, three hours; outside study, seven hours. Limited to junior/senior Ethnomusicology majors. Integration of academic work and hands-on training. Participation in theoretical discussions of world music education and application of these theo- reies in elementary and secondary music and social studies classrooms. P/NP or letter grading.

197. Special Topics in Ethnomusicology. (4) Lecture/seminar, three hours. Selected topics in ethnomusicology. Consult Schedule of Classes for topics and credit. May be repeated for credit. P/NP or letter grading.


199E. Special Studies in Ethnomusicology. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average. Limited to seniors. Individual studies in ethnomusicology resulting in research project. May be repeated for a maximum of 8 units.

199S. Special Studies in Ethnomusicology. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average. Limited to seniors. Individual studies in ethnomusicology resulting in research project. May be repeated for a maximum of 8 units.

Graduate Courses

201. History of Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Integration of literature and schools of thought in field of ethnomusicology from the late 19th century to the 1980s. Letter grading.

202. 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 the 1980s to the present. Letter grading.


294 / Ethnomusicology
222A-C222B-C222C. Jazz Styles and Analysis. (4-4-4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Musicology majors. In-depth analysis of jazz styles and repertoires intended for students with music backgrounds. Concurrently scheduled with courses C122A-C122B-C122C. Letter grading. C222A. Early Jazz to Swing Era. C222B. Bebop to Avant-garde; C222C. Jazz since the Sixties.


233A-233B-233C. European Traditional and Popular Music. (0-0-4) Discussion, one hour; Review of literature on European traditional and popular music, with special attention to modern issues and processes. May be repeated for credit. In Progress and letter grading.

C236A-C236B. Music of Africa. (4-4) Concurrently scheduled with courses C136A-C136B. Letter grading. C236A. Lecture, four hours. Designed for graduate students. Introduction to music of Africa through general discussion of select topics such as the continent and its environments, function, the musician, instruments, musical structure and related arts, and contemporary music. C236B. (Formerly numbered C236.) Lecture, four hours; discussion, one hour. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music.


241. Music of Iran and Other Non-Arabic-Speaking Communities. (4) Lecture, three hours. Requires: course 202 or course in ear training, analysis, and theory. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their historical and cultural background, sources on music theory and aesthetics, instruments, style, technique of improvisation, and contemporary practice. Concurrent participation in Near East performance ensemble (course 91N) required.

248. Classical Music of India. (4) (Formerly numbered 248A-248B.) Lecture, three hours; outside study, nine hours. Requires: course 146 or 147. Study of history, theory, and practice of north and south Indian classical music. During first term, emphasis on music history and traditional theory; second term, analysis of present-day forms, styles, techniques, and musical instruments. Concurrent participation in Indian performance group (course 91F) required. S/U or letter grading.

250. Music and Politics in East Asia. (4) Lecture, four hours. Designed for graduate students. Political imperatives have long had a direct and often explicit impact on music as a context in East Asia. Examination of interaction of ideology and musical practices in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C150. Letter grading.

251. Music of Indonesia. (4) (Formerly numbered 250A-250B.) Lecture, three hours; outside study, nine hours. Requires: course 20C. During first term, emphasis on music of Java, Bali, and music of other Indonesian islands during second term. Concurrent participation in Indonesia performance group (course 91B or 91H) required. S/U or letter grading.

252. Seminar: Music of Mainland Southeast Asia. (4) Seminar, three hours. Requires: course 20C. Presentation of materials concerning musical performance traditions of Indonesia, Malaysia, Thailand, and Burma, both in mainland Southeast Asia and in the American context, with perspectives from archaeology, history, performance theory, applied anthropological, and ethnomusicology.

256A. Music in China. (4) Requires: 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 affect of Confucian and Communist ideologies on music. Concurrently scheduled with course C156A.

259. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for graduate Ethnomusicology, Music, Musicology, and World Arts and Cultures majors. Survey of musics from China’s border regions and neighboring countries: Tibe- tian, Mongolian, Uighur, Uzbek, Kazakh, Tadzhik, Kirghiz, Korean, and Japanese peoples.选修

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. May be repeated once for credit.

264. Urbanism and Music. (4) Seminar, three hours; outside study, nine hours. Theoretical and methodological issues in study of the city as cultural entity that affects and is affected by music making and of strategies individuals and groups use to remain musically active in an urban area. 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 religions. S/U or letter grading.

266. Charles Seeger’s Life and Thought. (4) Seminar, three hours; outside study, nine hours. Charles Seeger’s 1866-1979 musical influence and influence on three fields he helped to found (ethnomusicology, systematic musicology, historical musicology), as well as his interest in applied musicology and American composition in the 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 religious experience. Phenomena include trance, spirit possession, shamanism, religious ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

269. Music, Science, and Technology. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Designed for Ethnomusicology, Music, and Musicology majors. Application of science and technology for both creation and dissemination of music. Introduction to tools and techniques such as CD mastering, digital sampling, recording, and music synthesis and their underlying technologies. Concurrently scheduled with course C169. Letter grading.

271. Seminar: Acoustics of Music. (6) Seminar, three hours. Requires: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Topics include Western and non-Western instruments, tuning systems, psychoacoustics, and methods and spectral analysis. May be repeated once for credit.

273. Seminar: Psychology of Music. (6) Seminar, three hours. Requires: course 173. Selected topics in psychology of music, including recent findings in brain research, musical perception, learning, cognition, memory, therapy, affect, meaning, and measurement. May be repeated once for credit.

275. Seminar: Aesthetics of Music. (6) Seminar, three hours. Requires: course 176. Specific topics in Western art music and non-Western music, including timbre, meaning, value, meaning (semiotics), historical development of theoretical perspectives and critical theory, and interpretation. May be repeated once for credit.

276. Musical Ethnography and Archaeology of Cross-Cultural Perspectives. (4) (Formerly numbered C276.) Lecture, four hours; outside study, eight hours. Exploration of music in film, animation, and dance through lenses of cognitive psychology, with focus on interpretation of film music relative to model of musical meaning. Concurrently scheduled with course C176. Letter grading.

279. Seminar: Systematic Musicology. (4) Seminar, three hours. Requires: course 170. Exploration of specific topics in general field of systematic musicology, including discourse, methodology, aesthetics, acoustics, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit.

281A-281B. Seminars: Field and Laboratory Methods in Ethnomusicology. (6-6) Seminar, three hours; laboratory, two hours. Requires: courses 201A-201B. Fieldwork concepts and methods using technical equipment, conducting interviews, dealing with ethical issues, and designing research projects.

282. Seminar: Analysis. (6) Seminar, three hours. Requires: course 180 or graduate ethnicity requirement. Intensive discussion of techniques used in ethnomusicology, including transcription and notation, with emphasis on analysis of musical performance and music events.


284. Seminar: Anthropology of Music. (4) Requires: courses 201A-201B. Analysis of current anthropological paradigms and issues that have major impact on ethnomusicology.

285. Seminar: Comparative Music Theory. (6) Seminar, three hours. Comparative study of codified musicotheoretical theories of select cultures — Western and non-Western — considered in themselves and as expressions of their societies. Theory considered as a science of music; its place between cultural values and abstract and applied knowledge.

286. Seminar: Folk Music. (4) (Formerly numbered M287.) Seminar, three hours.

288. Music Industry. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on creation of musical works, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in the 18th century and continuing through developments in the recording industry, especially the rise of popular music today. Concurrently scheduled with course C188. Letter grading.

295. Ethnomusicology / 295
Within Europe and from other parts of the world, the challenges of a rapidly evolving global economic system, and the uncertainties inherent in the process of unification — all these developments call into question the intellectual configurations that have long dominated our thinking. Today the regions of Europe provide a laboratory for examining — and finding solutions for — everything from efforts to integrate people of color to changes in the family and the status of women. They challenge us to consider new philosophical, artistic, and literary approaches and require us to come to grips with the collapse of socialist command economies in the East and the exhaustion of once-successful welfare states in the West.

To enable students to consider these questions, the European Studies Major offers an interdisciplinary program leading to the Bachelor of Arts degree. Students are required to (1) study a European language other than English, (2) develop a historical perspective on European issues, (3) examine European culture, society, politics, and economy, and (4) acquire basic analytical and theoretical skills. Central to this effort are a series of core seminars and a senior essay to encourage majors to delve into a research topic of their choice.

Undergraduate Study

European Studies B.A.

The curriculum is designed to serve the needs of students who wish to (1) approach the study of Europe from a structured, interdisciplinary perspective, (2) pursue graduate work in disciplines permitting the study of Europe, (3) orient their professional life toward European affairs in fields such as law, business, diplomacy, journalism, and human services, and (4) acquire valuable skills in foreign languages and writing that will assist them in their careers.

Admission

Interested students should meet with the program chair no later than the beginning of the sophomore year to discuss requirements and formulate their course of study. Students are expected to declare the major at the end of their sophomore year, following normal UCLA procedures, and must have a minimum grade-point average of 2.5 in all preparation courses. Transcripts and course plans demonstrating that they will have completed all lower division requirements by the end of their junior year must be presented.

Foreign Language Requirement

Students must prepare for the major by studying a European language other than English. This language — the declared foreign language — helps to focus the major and determine options for the period of study abroad. Students are expected to fulfill the specific requirements of their selected language department (French, Germanic Languages, Italian, Slavic Languages and Literatures, Spanish and Portuguese) for entrance into upper division.
courses. Students who wish to study Latin or Greek are also required to demonstrate proficiency in a modern language. In most cases, courses 1, 2, 3, 4, 5, 6, or the equivalent fulfill the requirement (Spanish has slightly different course numbers and requirements). Students must complete the lower division foreign language requirement by the end of the sophomore year.

**Preparation for the Major**

**Required:** (1) *Humanities and the arts* — one course from Philosophy 1, 2, 4, 5, 6, 7, 8, 21, or 22; one lower division introductory language department course in literature or civilization that focuses on the declared foreign language; one course from History 54, 57, Music History 2B, or 13 and (2) *social sciences* — Economics 1 or 5; two courses from History 1A, 1B, 1C; two courses from Geography 3, 5, Political Science 10, 20, 30, 50, Sociology 1, M18, Women's Studies 10.

By carefully selecting courses for the Preparation for the Major, students can fulfill some of their general education requirements.

**Transfer Students**

To be admitted as European Studies majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of a foreign language other than English, one language department course in literature or civilization that focuses on the declared foreign language, one philosophy course, one art history or music history course, one semester or two quarters of history of Western civilization, one economics course, and two courses from geography, political science, sociology, or women's studies.

**The Major**

**Required:** (1) At least one upper division course in the literature of the declared foreign language, with instruction and reading assignments in that language (see the list of approved courses below); (2) one course from History 124A, 124B, 125A through 125F, 126A through 126F, 127A, 127B, 127C, 128A, 128B, 128C, 129A, 129B, 129C, 130, 131A through 131D, 132A, 132B, 133A, 133B, 134A, 134B, 141A, 141B, or 141C; (3) European Studies 101 and 199; (4) at least eight electives selected from the list of approved courses, with a minimum of three courses from humanities and three from social sciences. Electives must either continue the regional focus, introduce a theoretical and methodological perspective, or introduce a rationally conceived comparative point of view (sample programs are on file in the program office).

During their senior year students must write an extended paper offering original research on a topic of interest to them. Topics must be approved by a faculty adviser selected by the student and endorsed by the program's executive committee.

Students must consult with the program chair to design their upper division coursework.

**Study in Europe**

The program expects students to spend at least one term — and preferably a full academic year — studying in the European country most relevant to their work. This is normally done under the auspices of the University of California Education Abroad Program; however, alternative arrangements can be made at UCLA if students have financial or personal considerations that may prevent them from going overseas. To obtain UCLA credit after returning to campus, students must have their foreign transcripts evaluated by the program faculty and staff.

**European Studies**

**Upper Division Courses**

101. Introduction to European Studies. (4) Discussion, three hours. Limited to and required of European Studies majors. Interdisciplinary seminar that introduces students to central topics, themes, and concepts of European studies, including the individual and the state, cultural life, economic relations, nationalism, and international relations.

102. Special Topics in European Studies. (4) Discussion, three hours. Variable topics. May be repeat- ed for credit.


**Course List**

All courses are not offered every academic year. Students should contact the individual departments or the European Studies staff for information about the availability of specific courses. Other appropriate courses may be taken by petition.

**Anthropology**

Appropriate courses may be taken by petition.

**Art History**

109C. European Art of the 18th Century
109D. Art and Architecture of Georgian England
110A. European Art of the 19th Century
110B. European Art of the 19th Century: Realism and Impressionism
110C. European Art of the 19th and 20th Centuries: Postimpressionism to Surrealism

160D. Selected Topics in Contemporary Art

**Bulgarian (Slavic Languages)**

154. Survey of Bulgarian Literature

**Classics**

Appropriate courses may be taken by petition.

**Comparative Literature**

159. Four Modern Dramatists
C160. Topics in Literature and Visual Arts
C161. Fiction and History
C163. Crisis of Consciousness in Modern Literature
C164. The Modern Continental Novel
M165. The Holocaust in Literature
CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature
C172. The Postmodern Novel
M174. Film and Literature of the Spanish-Speaking World

**Czech (Slavic Languages)**

155. Survey of Czech Literature from Middle Ages to the Present

**Dutch (Germanic Languages)**

100. Modern Dutch Culture and Society
113. Modern Dutch and Flemish Literature in Translation
120. Introduction to Dutch Studies
131. Introduction to Modern Dutch Literature

**Economics**

107. History of Economic Theory
110. Economic Problems of Underdeveloped Countries
181A, 181B. Development of Economic Institutions in Western Europe
190. International Economics

**English**

142A. Shakespeare: Poems and Early Plays
142B. Shakespeare: Later Plays
143. Milton
151. Elizabethan Literature
152A. Drama from Beginning to 1576
152B. Drama, 1576 to 1642
153. Literature of Early 17th Century, 1600 to 1660
154. Literature of Restoration and Earlier 18th Century, 1660 to 1730
155. Literature of Later 18th Century, 1730 to 1798
156. Drama, 1660 to 1842
157. The Novel to 1832
160. Earlier Romantic Literature
161. Later Romantic Literature
162. Earlier Victorian Poetry and Prose
163. Later Victorian Poetry and Prose
164. The Novel, 1832 to 1900
165. 20th-Century British Poetry
166. 20th-Century British Fiction
167. Drama, 1842 to 1945
168. Drama, 1945 to the Present

**French (French and Francophone Studies)**

114A–114B–114C. Survey of French Literature
115A–115B–115C. Medieval French Literature
116A–116B–116C. Renaissance
117A–117B–117C. 17th Century
118A–118B–118C. 18th Century
119A–119B. 19th Century
120A–120B–120C. 20th Century
130. Special Topics in French and Francophone Cultures
132. Contemporary France
M140. Women's Studies in French Literature
141. Cinema and Literature in France
153. Studies in 18th-Century Literature
154. Studies in 19th-Century Literature
155. Studies in 20th-Century Literature
156. Studies in Contemporary French and Francophone Literature
157. Studies in French Critical Theory and Philosophy
158. Studies in History of Ideas
162. Modern French Thought in Translation
164A–164B–164C. The French Novel in Translation
165. Topics in French Literature in Translation

**Geography**

133. Cultural Geography of the Modern World
134. Space, Place, and Nature in Western Thought
140. Political Geography
142. Population Geography
183. Europe

**German (Germanic Languages)**

100B. German History and Culture from 1500 to 1914
100C. War, Politics, Art
Appropriate courses may be taken by petition.

Latin (Classics)

M187. The Holocaust in Literature

Literature

150B. Hebrew Literature in English: Rabbinic Judaism
143. Introduction to Jewish Folklore
130. Modern Anti-Semitism
130. Modern Jewish Religious Movements and Their Ideologies

Jewish Studies (Near Eastern Languages)

130. Modern Jewish Religious Movements and Their Ideologies
141. Modern Anti-Semitism
143. Introduction to Jewish Folklore
150B. Hebrew Literature in English: Rabbinic Judaism
151A. Modern Jewish Literature in English: Diaspora Literature
M187. The Holocaust in Literature

Latin (Classics)

Appropriate courses may be taken by petition.

Music History (Musicology)

133. Bach
134. Beethoven
135A-135B-135C. History of Opera
139. History and Literature of Church Music
156. Studies in Musical Genres
188. Topics in Music History
189A-189B. The Symphony

Philosophy

Appropriate courses may be taken by petition.

Polish (Slavic Languages)

152A-152B-152C. Survey of Polish Literature

Political Science

M111A-111B-111C. History of Political Thought
113. Problems in 20th-Century Political Theory
116. Marxism
127A-127B. Atlantic Area in World Politics
128A. U.S./Soviet Relations
128B. International Relations of Post-Communist Russia
152A-152B-152C. Government and Politics of Western Europe
153A-153B. Comparative Government and Politics of Western Europe
155. Advanced Pluralist Democracies
156A-156D. Government and Politics of Post-Communist States

Portuguese (Spanish and Portuguese)

C127. 19th-Century Portuguese Literature
C128. Post-Romanticism and Naturalism in Portuguese Literature
C129. 20th-Century Portuguese Literature

Romanian (Slavic Languages)

152. Survey of Romanian Literature

Russian (Slavic Languages)

119. Golden Age and the Great Realists
120. Literature and Revolution
124C-124D. Studies in Russian Literature
125. The Russian Novel in Its European Setting
M127. Women in Russian Literature
128. Russian Science Fiction
130A-130B-130C. Russian Poetry
140A-140D. Russian Prose Fiction
150. Russian Folk Literature

Scandinavian

Appropriate courses may be taken by petition.

Serbian/Croatian (Slavic Languages)

154. South Slavic Literature

Slavic (Slavic Languages)

125. Interwar Central European Prose
126. Postwar Central European Prose
179. Baltic and Slavic Folklore and Mythology

Sociology

101. Development of Sociological Theory
102. Contemporary Sociological Theory
116. Social Demography
117. Family Demography
127. Mind and Society
129. Sociology of Time
132. Social Psychology: Sociological Approaches
133. Collective Behavior
134. Culture and Personality
135. Group Processes
136. Process and Socialization in the Family
156. Ethnic and Status Groups
158. Urban Sociology
160. Intergroup Conflict and Prejudice
182. Political Sociology
183. Comparative and Historical Sociology

184. Social Change

Spanish (Spanish and Portuguese)

124. Golden Age: Poetry and Drama
125. Golden Age: Prose
127. Golden Age: Don Quijote
128. The Enlightenment and Romanticism in Spain
130. Post-Romanticism, Realism, and Naturalism in Spain
132. 20th-Century Spanish Prose
133. 20th-Century Spanish Poetry and Drama

Ukrainian (Slavic Languages)

152. Ukrainian Literature

Women’s Studies

M106. Imaginary Women
M107B. British Women Writers
110A. Feminist Theories in Social Sciences
110B. Feminist Theories in the Humanities
134. Gender, Science, and Theory
M154Q. Gender Systems: Global
M158. Women in Italian Culture
M162. Sociology of Gender
M165. Psychology of Gender
M192. Philosophical Analysis of Issues in Feminist Theory

Yiddish (English)

121A. 20th-Century Yiddish Poetry in English Translation
121B. 20th-Century Yiddish Prose and Drama in English Translation
121C. Special Topics in Yiddish Literature in English Translation
131A. Modern Yiddish Poetry
131B. Modern Yiddish Prose and Drama

FAMILY MEDICINE

David Geffen School of Medicine

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Clinical Affairs

Directors

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Jaime Cruz, M.D., Pomona Valley
Thomas Dunlop, M.D., Ventura County
Pamela Davis, M.D., Acting Director, Northridge Hospital
James H. Hara, M.D., Kaiser-Sunset
Brian Halstater, M.D., Co-Director, UCLA-Santa Monica
Denise K.C. Sur, M.D., Co-Director, UCLA-Santa Monica

Scope and Objectives

The Department of Family Medicine seeks to provide 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. The overall goal is to provide students with the opportunity to gain an understanding and appreciation of the central role of the primary care physician 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 health care issues facing underserved and immigrant populations in urban America, as well as an introduction to health services research in family medicine.

Family medicine faculty members are active both in leadership roles in the doctoring curriculum and in the new 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 doctoring 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.

For further details on the Department of Family Medicine and a listing of the courses offered, see http://fm.mednet.ucla.edu.

Scope and Objectives

The purpose of the Film, Television, and Digital Media Department 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 graduate programs leading to the Master of Arts, Master of Fine Arts, and Ph.D. degrees in Film and Television.

Undergraduate Study

Film and Television B.A.

The undergraduate Film and Television major encourages development of a personal vision which 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 fundamental values of film, video, and television production.

Students are admitted for Fall Quarter only. Admission is highly competitive, and only a limited number of students can be accepted each year. Prior to entry, students are expected to complete at least 90 quarter units (60 semester units) with a 3.0 grade-point average or better and the general education requirements of the School of Theater, Film, and Television. Applicants are also required to submit two letters of recommendation and a portfolio of original written work consisting of (1) a personal essay, (2) a critical essay on a film or major television program, and (3) a creative writing sample. For more specific information on admission requirements, contact the Student Services Office, School of Theater, Film, and Television, UCLA, 103 East Melnitz Building, Box 951622, Los Angeles, CA 90095-1622, or see http://www.tft.ucla.edu/filmtv/ftvhome.htm.
Preparation for the Major

Required: Film and Television 106A, 106B or 106C, 110A, and one theater course (history, literature, or production).

The Major

Required: Film and Television 100, 115, 130A, 130B, 150, 154, 155, 163, 185, 192; three hours. Relevant and highly interactive lecture/discussion/workshop. Student production teams create multimedia presentations designed to provide meaningful information, raise consciousness, stimulate discussion, and provoke debate about today's powerful media messages (i.e., news, advertising, violence, sex, minority representation).

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Film, Television, and Digital Media offers Master of Arts (M.A.), Master of Fine Arts (M.F.A.), and Doctor of Philosophy (Ph.D.) degrees in Film and Television.

Film and Television

Upper Division Courses

100. Undergraduate Symposium. (1 or 2) Laboratory, three hours. Limited to Film and Television majors. Structured forum in which undergraduate majors meet on a regular basis to discuss curricular issues, meet with faculty, and have exposure to an array of guest speakers from within the film industry. May be repeated for a maximum of 4 units. Letter grading.

105A. History of the American Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of American motion picture both as a developing art form and as a medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

106B. History of the European Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture both as a developing art form and as a medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.


107. Experimental Film. (6) Lecture/screenings, eight hours; discussion, one hour. Study and analysis of unconventional developments in the motion picture.

110A. American Television History. (4) Lecture/screenings, six hours; discussion, one hour. Historical and critical survey of broadcast television both here and abroad. Consideration of social responsibilities and educational implications of broadcasting. Letter grading.

110C. World Media Systems. (4) Lecture/viewing, four hours; discussion, one hour. Requisite: course 110A. Designed for juniors/seniors to: (1) global analysis of internal and external broadcasting services, with emphasis on their motives, origins, technologies, and programming; (2) special attention to political, economic, and regulatory constraints and common world media issues.

112. Film and Social Change. (6) Lecture/screenings, eight hours; discussion, one hour. Development of documentary and dramatic films in relation to and as a force in social development. Letter grading.

113. Film Authors. (6) Lecture/screenings, eight hours; discussion, one hour. In-depth study of a specific film author (director or writer). May be repeated once for credit with consent of department and topic change.

114. Film Genres. (6) Lecture/screenings, eight hours; discussion, one hour. Study of a specific film genre (i.e., Western, gangster, musical, silent epic, comedy, mystery) to be repeated once for credit with consent of department and topic change.


116. Film Criticism. (4) Lecture, four hours; laboratory, to be arranged. Study of and practice in film criticism.

117. Chicanos in Film/Video. (6) (Same as Chicana and Chicano Studies M114.) Lecture/screenings, eight hours; discussion, one hour. Examination of representation of Mexican Americans and Chicanos in film and video. May be repeated for credit with consent of department and topic change. Letter grading.

127. Problems and Ethical Issues in Film and Telecasting. (4) Lecture, three hours; laboratory, eight to 10 hours. Relevant and highly interactive lecture/discussion/workshop. Student production teams create multimedia presentations designed to provide meaningful information, raise consciousness, stimulate discussion, and provoke debate about today’s powerful media messages (i.e., news, advertising, violence, sex, minority representation).

128. Media and Ethnicity. (4) Utilizing the American experience, exploration of impact and uses of media in contemporary and ethnic communities. Role and techniques of media influence besides community utilization and production.

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 contributions in the collaborative effort; examination of distinctiveness and interrelationships among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated for a maximum of 6 units. Concurrently scheduled with course CM229.

130A. Screenwriting Fundamentals. (2) Lecture, one hour. Consistently for general students enrolled in course 129A. Examination of screenwriting fundamentals: structure, character and scene development, conflict, locale, theme, history of drama. Review of authors such as Aristotle, Egreg.

130B. Screenwriting Fundamentals Workshop. (4) Discussion, three hours. Problems in film and television writing.

131. Nontheatrical Screenwriting for Film and Television. (4 or 8) Discussion, three hours. Research and writing of documentary, technical, educational, industrial, and propaganda scripts. May be repeated for a maximum of 12 units.

135A-135B-135C. Advanced Screenwriting Workshops. (8-8-8) Lecture, three hours. Requisite: course 135B. Course 135A is requisite to 135B, which is requisite to 135C. 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 understanding of computer-mediated expression. Letter grading.


C143. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce a number of short projects. Concurrently scheduled with course C243. Letter grading.

C144. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of metaphors and tools for the multimedia authoring environment. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C244. Letter grading.

C148. Advanced Digital Media Workgroup. (4) Discussion, four hours; laboratory, two hours. Designed for students with previous laboratory course experience, course provides opportunities to create larger-scale digital media works with advanced software tools and techniques in a small process-oriented, creative workshop environment. May be repeated once for credit. Concurrently scheduled with course C248. Letter grading.

150. Cinematography. (4) Lecture, three hours; laboratory, three hours. Limited to Film and Television majors. Introduction to image control in motion picture photography through exposure, lighting, and selection of film, camera, and lens. Supervised projects in photographic and video equipment to complement material covered in lecture.

151. Introduction to Experimental Filmmaking. (4) Lecture, five hours; laboratory, to be arranged. Limited to Film and Television majors. Introduction to principles and practices of experimental film and video production. Techniques of image manipulation, design, and art direction. Production and completion of an experimental film (no longer than three minutes) utilizing 16mm non-sync 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. Production and utilization of sound equipment to create sound for film and television. May be repeated twice for credit. Letter grading.

153. Motion Picture Lighting. (4) Lecture, three hours; laboratory, three hours. Requisite: course 150. Limited to Film and Television majors. Introduction to principles and tools of lighting used in video storytelling through lectures, discussions, and screenings. Creative lighting techniques covering topics such as people, environment, spatial relationships, movement, color, special effects, and continuity.

154. Film Editing. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Production of a short film with practical experience in editing of image and synchronous sound.

155. Introduction to Digital Media and Tools. (4) Lecture, six hours; laboratory, to be arranged. Limited to Film and Television majors. Introduction to basic concepts and software of virtual production environments and digital postproduction tools. Letter grading.

163. Directing the Camera. (4) Workshop, eight hours. Limited to Film and Television majors. Investigation of expressive potential of the image within and beyond the narrative from a directorial perspective. Experiments with working methodologies which stimulate visual creativity and positioning the image as the fundamental element of cinematic expression.

164. Directing the Actor. (4) Exercises in analysis of script and character for purpose of directing actors. Emphasis on eliciting best possible performance from the actor. May be repeated twice for credit.

165. Advanced Narrative Television Directing. (4) Laboratory, six hours. Requisites: courses 130B, 185. Limited to Film and Television majors. Supervised exercises in series direction. Emphasis on creative use of cameras, sound, composition, and communication with those in front of and behind the camera. May be repeated twice for credit.

C170A. Introduction to Digital Effects. (4) Lecture, three hours; laboratory, to be arranged. Introduction to study of digital effects production, with specific focus on motion graphics, compositing, effects processing, and title sequences. Concurrently scheduled with course C470A. Letter grading.

175A-175B. Undergraduate Film Production. (8-4 to 8) Limited to Film and Television majors. 175A. Lecture, four hours; laboratory, eight hours. Writing, preproduction, and production of a short non-sync film. 175B. Lecture, three hours; laboratory, eight hours. Completion of postproduction (editing, creation of nonsync sound tracks) for short film begun in course 175A.

175A-176B. Advanced Undergraduate Video Production (6-4 to 8). Discussion, three hours; laboratory, to be arranged. Requisite: course 185. Limited to Film and Television majors. Production of a short non-sync video production (no more than 20 minutes), including its writing, production, and editing.

M177. Film and Television Acting Workshop. (2) (Same as Theater M178.) Laboratory, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles to which performers may need to adjust are (1) preproduction rehearsals with director, (2) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.

178. Film and Television Production Laboratory. (2 or 4) Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television postproduction. May be repeated for a maximum of 12 units, but only 8 units may be applied toward Film and Television majors. Letter grading.

181A. Animation Design in Film and Television. (4) Lecture, three hours; laboratory, three hours. History and use of creative arts used in animation to form effective communication on film.

181B. Writing for Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisite: course 181A. Research and practice in creative writing and planning for animated film. May be repeated for a maximum of 16 units.

181C. Animation Workshop. (4 or 8) Lecture, six hours; laboratory, to be arranged. Preparation: storyboard at first class meeting. Requisite: course 181A. Organization and integration of various creative arts used in animation to form a complete study of a selected topic. May be repeated for a maximum of 16 units.

185. Undergraduate Television and Video Production. (6) Laboratory, six hours. Limited to Film and Television majors. Instruction and exercises in basic techniques of television and video production. Letter grading.

186. Introduction to Documentary Video Production. (4) Lecture, three hours; laboratory, three hours; fieldwork, two hours. Limited to Film and Television majors. Viewing and discussion of selected documentaries and instructions in various production skills necessary to create video documentaries. Completion of a series of exercises from conceptualization through postproduction, culminating in production of short documentary.

187A-187B-187C. Producing and Directing Remote Multicamera Production. (4-6-6) Lecture/laboratory, three hours (additional hours to be arranged). 187A. Professionally oriented lecture/laboratory/fielddwork workshop course designed to provide disciplined planning, responsible leadership, and organizational and administrative skills to prepare students for deadline remote production. Emphasis on clarity of vision, storytelling, effective use of pitch, preproduction, shoot, and editorial. 187B-187C. Instruction and supervision of a remote production experience, with focus on development and execution of concept. Experience closely patterned after professional experiences in working with talent, production venues, and production logistics of remote on-location video programs.

192. Film and Television Internship. (4 to 8) Field experience, to be arranged. Limited to senior Film and Television majors. Internship at film and television industry organizations. May be taken for a maximum of 8 units.

193A. Film Curatorship. (4) Lecture, two hours; discussion, two hours; laboratory, four hours. Study of principles and techniques of film curatorship and research, including but not limited to acquisitions, cataloging, storage, and retrieval systems. Special attention to application of new technology, equipment, and program materials to film archival-library design for research and teaching.

193B. Television Curatorship. (4) Lecture, two hours; discussion, two hours; laboratory, four hours. Study of principles and techniques of television curatorship and research, including but not limited to acquisitions, cataloging, storage, and retrieval systems. Special attention to application of new technology, equipment, and program materials to television archival-library design for research and teaching.

199. Special Studies in Film and Television. (2 to 8) Preparation: 3.0 grade-point average in major. Limited to seniors. May be taken for a maximum of 8 units.

Graduate Courses

200. Bibliography and Methods of Research in Film and Television. (6) Discussion, three hours; laboratory, four to six hours. Study of the methods and techniques of research analyzes the role of film and television in relation to film and television research, including development of computer skills for preparation of bibliographies, on-line database searching and retrieval and, when appropriate, use of computer/videodisc technology for research.

201. Seminar: Film and Other Arts. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in interrelationships between film and fine arts, performance arts, or literature, with emphasis on ways these other arts have influenced film. May be repeated twice for credit.

206A. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Requisite: course 106B. Designed for graduate students. Studies in selected historical movements such as expressionism, socialist realism, surrealism, neo-realism, New Wave, etc. May be repeated twice for credit.

206B. Selected Topics in American Film History. (6) Seminar, three hours; film screenings, three to six hours. Recommended prerequisite: course 106A or 206C. Advanced critical seminar with focus on specific period in U.S. film history. Letter grading.

206C. Seminar: American Film History. (6) Seminar, three hours; film screenings, four hours. Introduction to industrial, social, and aesthetic history of the American film. Letter grading.

207. Seminar: Experimental Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of film, style, politics, and history of experimental, innovative, avant-garde, and minority film and video.

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 hours. Study of principal topics and lines of inquiry that characterize theoretical writings of Aronheim, Eisenstein, Bazin, Kracauer, etc. Letter grading.

208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Requisite: course 208B. Designed for graduate students. Study of recent theoretical advances and methods of film theory through contemporary writings, S/U or letter grading.

209A. Seminar: Documentary Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of documentary film and its relation to contemporary culture.
221. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of patterns, styles, and theoretical contexts as the Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit.

222. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of patterns, styles, and theoretical contexts as the Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit.

223. Seminar: Visual Perception. (4) Seminar, three hours; film screenings, two hours. Aesthetic, psycho-physiological, and phenomenological approaches to vision as they relate to ways in which viewers experience and "see" film, television, and digital media. Letter grading.

224. Computer Applications for Film Study. (4) Survey of computer applications relevant to film study, principally computer-vidoeic systems and image capture technology.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM229.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in their field, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in the collaborative effort; examination of distinctiveness and interrelations among the arts. Individual participation of leading members of theater, film, and television professions. May be repeated for a maximum of 6 units. Concurrently scheduled with course CM129.


C243. Moving Digital Image. (4) Formerly numbered 243.) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Examines methodologies and tools for media integration, interface design, and inter-active audiovisual construction. Students conceive, produce, and manage individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.

C244. Interactive Multimedia Authoring. (4) Formerly numbered 244.) Lecture, three hours; laboratory, three hours. Exploration of creative aspects of World Wide Web as medium for personal/collective expression. Students produce Web works and serve them online. Contextualization of medium by looking at its history, embedded ideology, and sociopolitical consequences. May be repeated once for credit. Concurrently scheduled with course C145. Letter grading.

C245. Creative Authoring for World Wide Web. (4) Formerly numbered 245.) Lecture, three hours; laboratory, three hours. Exploration of new digital technologies on contemporary culture and aesthetics. Students do laboratory projects using visualization, image manipulation tools, and digital media.


C248. Advanced Digital Media Workgroup. (4) Formerly numbered 248.) Discussion, four hours; laboratory, two hours. Designed for students with previous laboratory coursework, course provides opportunity to create larger-scale digital media works with advanced software tools and techniques in a small process-oriented, creative workshop environment. May be repeated once for credit. Concurrently scheduled with course C148. Letter grading.

249. Digital Revolution. (4) Lecture, four hours; discussion, one hour; laboratory, one hour. Comprehensive survey to introduce students to converging digital technologies, resulting new media, and their artistic, economic, and social implications. Topics include digital editing, digital previsualization, multimedia, World Wide Web, interactive television.

268. Seminar: Short Film. (4) Seminar, two hours; discussion, two hours. Designed for graduate students. Study of problems presented by conceptualization of form and structure of the short film, with classical and student examples.

270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of key aesthetic questions of analysis and evaluation in relation to central works of motion picture criticism. May be repeated once for credit.

271. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of ways television has entered into politics of representation and distribution of motion picture production and criticism it has elicited. May be repeated once for credit. S/U or letter grading.

272. Seminar: Contemporary Film and Television Criticism. (6) Seminar, three hours; film and television screenings, four to six hours. Limited to Film and Television Ph.D. candidates. Study and practice of analytic and critical response, with emphasis on contemporary film and television.

274. Seminar: Research Design. (4) Seminar, three hours. Designed for second-year Film and Television Ph.D. students. Examination of general principles that govern formulation of major research projects and preparation of a prospectus for Ph.D. dissertation.

276. Seminar: Non-Western Films. (4) Seminar, three hours (additional hours as required). Designed for graduate students. Study of aesthetic and ideological impulses of selected films from Asia, Africa, and Latin America.


289A-289B-289C. Current Business Practices in Film and Television. (4-4-4) Requisite: course 247. Designed for graduate students. Examination of current status of financing/production/distribution agreements, union agreements, music, copyright, etc., necessary to understand the film and television industry. May be taken in any sequence.

291A-291B-291C. Role of Management in Entertainment Industry. (4-4-4) Requisite: course 247. Designed for graduate students. Study of artistic, social, and economic criteria for decision making in production and distribution of motion pictures and entertainment programs. May be taken in any sequence.

292A-292B-292C. Network Television Management and Decision Making. (4-4-4) Lecture, two hours; discussion, two hours. Requisite: course 247. Designed for graduate students. Study of business structure and economic, social, and artistic criteria currently utilized by network television management. Only 8 units may be taken for credit.

293. Seminar: Film and Television Curatorship. (4) Seminar, three hours (additional hours as required). Designed for graduate students. Study of curatorial practice of issues in archival research and administration.

298A-298B. Special Studies in Film and Television. (2 to 4 each) Lecture/discussion. Designed for graduate students. Seminar study of problems in film and television, organized on topic basis. May be repeated once for credit.
409. Directing the Actor for the Camera Work- shop. (4) Workshop, six hours; laboratory, to be ar-
ranged; laboratory preparation, two to four hours. Limited to M.F.A. production program students. Team-
taught with five weeks designed to give the director actor/camera techniques, and five weeks to offer ba-
sic strategies to elicit good performances from actors. Emphasis on problems faced when directing actors for film.

410A-410B-410C. Film Production Workshops. (8-
12-8) Lecture/discussion/laboratory, 24 hours; field-
work, to be arranged. Requisite: course 405. Limited to
and required of first-year M.F.A. production program
students. Production workshop spanning three terms,
designed to give hands-on experience in all aspects of
film production (the tools and a practi-
cum of the medium) as each student writes/directs/
eds a six-minute film. Letter grading.

411. Survey of Multimedia Production. (4) Lec-
ture, three hours; laboratory, three hours. Introduction to
various methods of digital production, with focus on
photography, desktop nonlinear postprod-
uction, and distribution on World Wide Web. Letter
grading.

416. Intermediate Cinematography. (4) Lecture,
two hours; laboratory, four hours. Intermediate study
of principles of cinematography, with emphasis on ex-
posure, lighting, and selection of film, camera, and
lenses. Letter grading.

417. Lighting for Film and Television. (4, Lecture,
two hours; laboratory, six hours. Limited to graduate
film and television students. Lectures, supervised ex-
ercises on a stage or in an exterior, screenings of
scenes, and discussions aimed at learning to master
the lighting to create an appropriate mood or atmo-
sphere of a premeditated scene recorded on a film or
through an electronic system. May be repeated twice
for credit. Letter grading.

418. Cinematography and Directing. (4) Lecture,
two hours; laboratory, six hours. Requisite: course
417. Limited to graduate film and television students.
Supervised filming of short dramatic projects on
sound stage and at exterior locations that explore
complexity of process, emphasizing balance and col-
laboration essential to both directing and photograph-
y in its varied technical, production, and creative as-
pects. Letter grading.

419. Advanced Cinematography. (4) Lecture, two
hours; discussion, one hour; laboratory, one hour.
Requisites: courses 417, 418. Limited to graduate film
and television students. Advanced study of princi-
ples of imagemaking and cinematography, with
emphasis on electronic exposure control, lighting,
and selection of film, camera, and lenses.

420. Digital Cinematography. (4) Lecture, two
hours; laboratory, four hours. Advanced study of prin-
ciples of imagemaking and cinematography, with
emphasis on electronic exposure control, lighting,
formats, camera, and lenses. Letter grading.

423A. Direction of Actors for Film and Television.
(4) Lecture, four hours; workshop. Preparation: first
film project. Limited to graduate film and television
students. Required of all production majors shooting
master film. May be repeated once for credit.

423B. Advanced Direction of Actors for Film and
Television. (4) Studio workshop, six hours. Requi-
site: course 423A. Limited to graduate film and televi-
sion students. Advanced study and practice of direct-
ing actors before a camera. Emphasis on developing
techiques to immediately enhance communication
between director and actor on the set in order to
maintain continuity from shot to shot.

431. Introduction to Film and Television Screen-
writing. (4) Lecture, three hours. Limited to graduate
film and television students. Introductory course in
problems of film and television screenwriting.

433. Writing the Short Screenplay. (4) Lecture,
three hours. Limited to and required of first-year
M.F.A. production program students. Conception,
development, and writing of a six-minute dramatic film
script to be produced in courses 410A, 410B, 410C.
Letter grading.

434. Advanced Screenwriting. (6) Discussion, three
hours. Requisite: course 410C. Advanced problems in
writing of original film and television screenplays.
May be repeated twice for credit. Letter grading.

435. Advanced Writing for Short Film and Televi-
sion Screenplays. (4) Discussion, three hours. Re-
quise: course 410C. Limited to graduate film and televi-
sion students. Conception, development, and writ-
ing of dramatic film script to be produced as an ad-
vanced or thesis project. Letter grading.

437. Nontheatrical Writing for Film and Television.
(4) Discussion, three hours. Limited to graduate film
and television students. Advanced problems in the
field of documentary and special feature programs,
with emphasis on research and preproduction. May
be repeated for a maximum of 16 units.

451. Advanced Design for Film and Television. (4
Lecture, to be arranged. Limited to graduate film
and television students. Advanced study and practice
teaching with five weeks designed to give the director
actor/camera techniques, and five weeks to offer ba-
sic strategies to elicit good performances from actors.
Emphasis on problems faced when directing actors for film.

452A. Film and Television Sound Recording. (4
Lecture, three hours; laboratory, four hours. Limited to
graduate film and television students. Principles and
practices of film and television sound recording,
cluding supervised exercises.

452B. Music Recording Workshop. (4, Lecture,
hours; laboratory, eight hours. Supervised exercises in
studios and classroom, with an emphasis on special
requirements for motion pictures and tele-
vision.

452C. Film and Television Sound Rerecording. (4
Lecture, three hours; laboratory, three hours. Limited to
graduate film and television students. Recording of
procketed media: basics of mixing 16mm and 35mm
film soundtracks to single stripe or three stripe
magnetic film. Overview of prepping tracks for final mix.
Fundamentals of Automatic Dialogue Replacement
and Foley. Rerecording and video/audio postprod-
tion of unprocketed media: emphasis on multitrack
tape and nonlinear disk-based recording and editing
systems. Includes all track building approaches, from
production sound electronic editing. Automatic Dia-
logue Replacement, Foley, backgrounds, hard FX and
MFX through minimal machinery combining
unprocketed and unsprocketed media in postprod-
ction.

454A-454B. Advanced Film Editing. (4-4) Lecture,
three hours; laboratory, to be arranged. Preparation:
submission of a rough cut and/or copy of screenplay.
Limited to film and television students. Limited to
film and television students. Advanced problems in
postproduction phase of thesis or advanced project.
Organization and operation of postproduction process.
466A-466B. Advanced Professional Video Workshops. (8-8) Lecture, three hours; laboratory, to be arranged. Requires: courses 405, 410A, 410B, 410C, 423A. Limited to graduate film and television students. Hands-on problems in working with various interrelated disciplines in a professional production experience, including interaction with students of design and acting from Department of Theater.

468. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Requires: courses 247, 405, 410A, 410B, 410C, 423A, 433. Limited to graduate directing or producer’s program students. Problems of location, production, directing, and cinematography in various ‘real-life’ practical locations. Practical application of solving problems and communication within limitations of production experience.

C470A. Introduction to Digital Effects. (4) Lecture, three hours; laboratory, to be arranged. Introductory study of digital effects production, with specific focus on motion graphics, compositing, effects processing, and title sequences. Concurrently scheduled with course C170A. Letter grading.

475. Film I (B) Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of basic techniques of film production, including pre-production planning and production of a group short film.

476. Video I. (8) Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of basic techniques of television and video production, including completion of one or more projects.

478. Video II. (8) Discussion, three hours; laboratory, to be arranged. Requires: courses 185, and 405 or 476. Designed for graduate students. Group experience in video production with each member rotating on crew work in production of individual or collective projects.

482A-482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; laboratory, to be arranged. Requires: courses 181A, 181B, 181C. Advanced organization and integration of various creative arts used in animation, resulting in production of a complete animated film. May be repeated for a maximum of 16 units.

486. Directed Individual Study: Preparation to Advance to Candidacy for M.F.A. in Production. (2 to 4) Preparation for thesis production, four to eight hours. Limited to M.F.A. production program students. Specialized development and organization of proposed thesis project prior to advancement to candidacy. Should be taken term before student plans to advance to candidacy.

487. Directed Individual Study: Postproduction Laboratory. (4) Laboratory, eight hours. Limited to M.F.A. production program students. Completion of projects in final stages of postproduction. May not be repeated.

488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requires: courses 181A, 181C, 489A. Organization and integration of various creative arts used in animation and interactive media to form complete study of a selective interactive animation project. May be repeated for a maximum of 16 units.

488B. Advanced Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requires: course 488A. Organization and integration of various creative arts used in animation and interactive animation to form completed project of a selected interactive topic. May be repeated for a maximum of 16 units.

489A. Computer Animation in Film and Video. (4 to 8) Lecture, six hours; laboratory, four to eight hours; other, to be arranged. Preparation: a completed animated film. Requires: courses 181A, 181C. Instruction in and supervised production of computer animation. May be repeated for a maximum of 16 units.

489B. Production in Computer Animation. (4 to 8) Lecture, six hours; laboratory, four to eight hours. Requisite: course 489A. Instruction in creation, preparation, and production of a complete and original computer animation film or tape. May be repeated for a maximum of 16 units.

496. Practice of Teaching Film and Television. (2) Discussion. Required once of all teaching assistants or associates in department. Orientation and preparation of graduate students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to the teaching experience. May not be applied toward M.A., M.F.A., or Ph.D. May be repeated. S/U grading.

498. Professional Internship in Film and Television. (4, 8, or 12) Full-or part-time at a studio or on a professional project. Designed for M.F.A. program advanced students. Internship at various film, television, or theater facilities accentuating creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled.

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

596A. Directed Individual Studies: Research. (2 to 12) Hours to be arranged. Limited to graduate students. May be repeated with consent of instructor.

596B. Directed Individual Studies: Writing. (2 to 12) Hours to be arranged. Limited to graduate students. May be repeated with consent of instructor.

596C. Directed Individual Studies: Directing. (2 to 12) Hours to be arranged. Limited to graduate students. May be repeated with consent of instructor.

596D. Directed Individual Studies: Design. (2 to 12) Hours to be arranged. Limited to graduate students. May be repeated with consent of instructor.

596E. Directed Individual Studies: Acting. (2 to 12) Hours to be arranged. Limited to graduate students. May be repeated with consent of instructor.

596F. Directed Individual Studies: Production. (2 to 12) Hours to be arranged. Limited to graduate students. May be repeated with consent of instructor.

597. Preparation for Ph.D. Qualifying Examinations in Film and Television. (2 to 12) Hours to be arranged. May be taken for a maximum of 12 units. S/U grading.


Related Courses

Communication Studies

187. Ethical and Policy Issues in Institutions of Mass Communication

Design I Media Arts

153A. Design for Video

English

118. Film and Literature

Italian

46. Italian Cinema and Culture in English

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 Preapartheid to Postapartheid Era, in English Translation

Ancient Near East (Near Eastern Languages)

150A. Survey of Ancient Near Eastern Literatures in English: Mesopotamia

150B. Survey of Ancient Near Eastern Literatures in English: Egypt

150C. Survey of Ancient Near Eastern Literatures in English: Syria and Palestine

Arabic (Near Eastern Languages)

150. Classical Arabic Literature and Culture in English

151. Modern Arabic Literature in English

Armenian (Near Eastern Languages)

150A-150B. Survey of Armenian Literature in English C152. Modern Armenian Drama as Vehicle for Social Critique

C153. Art, Politics, and Nationalism in Modern Armenian Literature

Bulgarian (Slavic Languages)

154. Survey of Bulgarian Literature

Chinese (East Asian Languages)

C150A. Lyrical Traditions

C150B. Traditional Narrative and Drama

151. Chinese Literature in Translation: Modern Literature

152. Topics in Contemporary Chinese Literature and Culture

M153. Chinese Immigrant Literature and Film

Classics

40W. Reading Greek Literature: Writing-Intensive

41W. Reading Roman Literature: Writing-Intensive

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

Comparative Literature

All undergraduate courses

Czech (Slavic Languages)

155. Survey of Czech Literature from Middle Ages to the Present

Dutch (Germanic Languages)

113. Modern Dutch and Flemish Literature in Translation

East Asian Literatures and Cultures

161. Buddhist Literature in Translation

English

108A-108B. English Bible as Literature

108C. English Bible as Literature: Special Topics

French (French and Francophone Studies)

162. Modern French Thought in Translation
French and Francophone Studies / 305

Associate Professors
Andrea N. Loselle, Ph.D.
Sara E. Meizer, Ph.D.
Malina Stefanovska, Ph.D.

Assistant Professor
Dominic R. Thomas, Ph.D.

Lecturers S.O.E.
Padoue Demartini, Ph.D., Emeritus
Jacquet M. Hamel-Baccash, Ph.D., Emeritus

Lecturers
Carole Delavaux, Ph.D.
Laurence Denié, Ph.D.
Nicole I. Dufresne, Ph.D.
Kimberly Jansma, Ph.D.

Scope and Objectives
The UCLA French and Francophone Studies Department 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 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. All three plans lead to the Bachelor of Arts degree and subsequently to graduate studies in French.

The graduate program offers both M.A. and Ph.D. 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 major 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.

164A-164B-164C. The French Novel in Translation
165. Topics in French Literature in Translation
166. French and Francophone Autobiography, in English

German (Germanic Languages)
50A. Great Works of German Literature in Translation: Medieval Period through Classicism
50B. Great Works of German Literature in Translation: Romanticism to the Present
106. The Faust Tradition from the Renaissance to the Modern Age
M108. Love and Sex in German Literary Tradition
112. Jewish Writing and Thought in German Culture from 1755 to the Present
116. Special Topics in Modern Literature and Culture

Hungarian (Slavic Languages)
121. Survey of Hungarian Literature in Translation

Iranian (Near Eastern Languages)
150A-150B. Survey of Persian Literature in English

Italian
42A-42B. Italy through the Ages in English
50A-50B. Masterpieces of Italian Literature in English
102A-102B-102C. Italian Cultural Experience in English
110. Dante in English
121. Literature and Film
122. Italian Theater
140. Italian Novella from Boccaccio to Basile
150. Modern Fiction in Translation
M158. Women in Italian Culture
230A-230B. Folk Traditions in Italian Literature
260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature

Japanese (East Asian Languages)
150. Japanese Literature in Translation: Classical
151. Japanese Literature in Translation: Modern
154. Postwar Japanese Culture through Literature
M156. Literature and Technology

Jewish Studies (Near Eastern Languages)
M150A-150B. Hebrew Literature in English
M151A-151B. Modern Jewish Literature in English
175. Modern Hebrew Novel as a Film

Korean (East Asian Languages)
150. Korean Literature in Translation: Classical
151. Korean Literature in Translation: Modern
154. Postwar Japanese Culture through Literature
M156. Literature and Technology

Old Norse Studies (Germanic Languages)
40. Heroic Journeys in Northern Myth, Legend, and Epic
C139. The Saga
C140. Viking Civilization and Literature

Polish (Slavic Languages)
152A-152B-152C. Survey of Polish Literature

Portuguese (Spanish and Portuguese)
40A-40B. Portuguese, Brazilian, and African Literature in Translation
46. Brazilian Culture and Civilization

Romanian (Slavic Languages)
152. Survey of Romanian Literature

Russian (Slavic Languages)
25. Russian Novel in Translation
25W. Russian Novel in Translation
118. Russian Literature of Middle Ages and Enlightenment
119. Golden Age and the Great Realists
120. Literature and Revolution
124-124T. Studies in Russian Literature
125. The Russian Novel in Its European Setting
126. Survey of Russian Drama
M127. Women in Russian Literature
128. Russian Science Fiction
C170. Russian Folklore

Scandinavian
50. Introduction to Scandinavian Literatures and Cultures
50W. Introduction to Scandinavian Literatures and Cultures
141. Backgrounds of Scandinavian Literature
142. Scandinavian Literature of the 19th Century
143. Scandinavian Literature of the 20th Century
C144. Henrik Ibsen on the World Stage
C145. Getting Married: Strindberg and Battle of the Sexes
C146. Kierkegaard and Foundations of Existentialism
C147. Pan’s Prophets: Knut Hamsun and Other Interpreters of Nature as Modern Idyll
C180. Literature and Scandinavian Society
C182. Theory of the Scandinavian Novel
184. Hans Christian Andersen
CM186. Voices of Women in Scandinavian Literature
187. Scandinavian Film: Bergman and Others

Serbian/Croatian (Slavic Languages)
154. South Slavic Literature

Slavic (Slavic Languages)
125. Interwar Central European Prose
126. Postwar Central European Prose

Spanish (Spanish and Portuguese)
60A-60B-60C. Hispanic Literatures in Translation

Ukrainian (Slavic Languages)
152. Ukrainian Literature

Yiddish (English)
121A. 20th-Century Yiddish Poetry in English Translation
121B. 20th-Century Yiddish Prose and Drama in English Translation
121C. Special Topics in Yiddish Literature in English Translation

FRENCH AND FRANCOPHONE STUDIES
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Patrick J. Coleman, Ph.D.
Eric L. Gans, Ph.D.
Lynn A. Hunt, Ph.D.
Françoise Lionnet, Ph.D.
Allen F. Roberts, Ph.D.
Stephen D. Werner, Ph.D.

Professors Emeriti
Marc Bensimon, Ph.D.
Hassan el Nouty, Docteur ès Lettres
Peter Haidu, Ph.D.
Shuhai Kao, Ph.D.
Milan S. La Du, Ph.D.
L. Gardner Miller, Docteur ès Lettres

*Updated after print edition.
French B.A./French and Linguistics B.A.

Preparation for the Majors

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. Students in Plan III must also take Linguistics 20.

Transfer Students

To be admitted to the French majors, transfer students 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. Students in Plan III must also complete an introduction to linguistics course.

The Majors

Three plans are offered by the department:

Plan I: French/Francophone Studies in Literature and Culture

Plan I leads to the Bachelor of Arts in French. Required: Thirteen upper division courses, including French 100, 101, 102; two courses from 114A, 114B, 114C; at least six courses in French and Francophone literature and culture selected from upper division offerings in the department in language, civilization, literature, or the arts. Two upper division elective courses from outside the department may be substituted in the major program with consent of the undergraduate adviser.

Plan II: Interdisciplinary French/ Francophone Studies

Plan II, with emphasis on French and Francophone culture, leads to the Bachelor of Arts in French and is a core program in French allowing for individual selection of relevant courses in related fields such as humanities, social sciences, women's studies, and linguistics. Required: Thirteen upper division courses, including French 100, 101, 102; two courses from 114A, 114B, 114C; at least six courses in French and Francophone literature; one additional elective course normally selected from upper division offerings in the department in language, civilization, literature, or the arts; five upper division elective courses in fields relevant to French and Francophone studies to be selected in or outside the department in consultation with the undergraduate adviser.

Plan III: French and Linguistics

Plan III leads to the Bachelor of Arts in French and Linguistics. In addition to the normal preparation for the major, students are required to complete the sixth term of work in one other foreign language or the third term in each of two other foreign languages. Linguistics 20 is required as preparation for the major. Required: Twelve upper division courses, including French 100, 101, 102; two courses from 105, 107, 108A, 108B, 109; two courses from 114A, 114B, 114C; Linguistics 103, 110, 120A, 120B, and 165A or 165B.

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, 101, or 102, 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 162 through 165, 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 any of the French majors.

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 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. Students whose GPA falls between 3.3 and 3.5 should submit a composite from a faculty member in the research, methodology, and writing of their approximately 30- to 35-page honors thesis (honors projects and the honors thesis are not to be confused). Courses 170A and 170B count as one course toward the requirements for the French majors.

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, or 15.

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.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of French and Francophone Studies offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in French and Francophone Studies.

French

Lower Division Courses

1. Elementary French. (4) Lecture, five hours.
2. Elementary French for Graduate Students. (3) Preparation for GSFLT or other language examinations. A passing grade does not imply satisfaction of language requirements. S/U grading.
102. Advanced Expository Writing: Techniques of Argumentation. (4) Lecture, three hours. Requi-


108B. Lecture, three hours. Requisite: course 102 or 108A. Translation of literary and sociocultural texts, including editorials, polemical issues, film subtitles. Comparative stylistics of translation. P/NP or letter grading.


110. Culture of Business in France. (4) Lecture, three hours. Requisite: course 100. Cultural issues in business French, including mentalities, practices and customs, marketing, and advertising strategies. P/NP or letter grading.

112. Medieval Foundations of European Civilization. (4) Lecture, three hours; discussion/film screenings, two hours. Medieval texts, culture, social structure, and political history as they lay bases of European modernity. P/NP or letter grading.


114A. Medieval and Renaissance Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including ex-
amples by Chrétien de Troyes (Yvain), Romance (Chrétien de Troyes’ Yvain, and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Rab-
elais, Marguerite de Navarre, and Montaigne). P/NP or letter grading.

114B. 17th and 18th Centuries. (5) Lecture, three hours. Requisite: course 12. Study of selections from major works of classicism and the Enlightenment, in-
cluding those by Racine, Pascal, La Fayette, La Fontaine, La Pléiade and 16th-Century Poetry. P/NP or letter grading.

114C. 19th and 20th Centuries. (5) Lecture, three hours. Requisite: course 12. Study of major literary movements and writers of the period, including works by Hugo, Balzac, Diderot, Dumas, Flaubert, Zola, Gide, Proust, Sartre, Robbe-Grillet, and Duras. P/NP or letter grading.

115A. Invention of Love in the 12th Century. (4) Lecture, three hours. Selections from the broad range of lyric poetry and narrative romance which in first extended “romantic” (sometimes called “courtly”) love. Readings include works of the troubadours and trouvères; different versions of the Tristan-myth, a ro-
mance of Chrétien de Troyes, and first part of Ro-
mance of the Rose P/NP or letter grading.

115B. Medieval Knight: Heroism and Its Social Pro-lems. (4) Lecture, three hours. Readings in literature and history of knights by Maffei and others in relation to personal history of the time. Texts include La Chanson de Roland, Raoul de Cambrai, La Mort le roi Artu, crusade history, and Georges Duby’s Guerri-
ers et paysans. P/NP or letter grading.

115C. Comedy Structure and Social Class. (4) Lecture, three hours. Medieval comedy, to be studied in relation to social classes and their evolution in the Mid-
dle Ages, a number of forms. Often obscene in the Middle Ages, it can turn parodic in the Roman de Ren-
ne, simultaneously satiric, fantastic, and religious in the bourgeois drama of Aris, and utterly charming in the unclassifiable Aucassin et Nicolette. P/NP or letter grading.

116A-116B-116C. Renaissance. (4-4-4) Lecture, three hours. P/NP or letter grading:

116A. La Pèlerie and 16th-Century Poetry. (4) Lecture, three hours. Study of the linguistic and poetic “revolution” brought about by La Pèlerie et illustration (1549), including works by Marot, Scève, Labé, Du Bellay, and Ronsard. P/NP or letter grading.

116B. The Novel and Other Early 16th-Century Prose. (4) Lecture, three hours. Emphasis on Rabe-
lais, with other texts by such writers as Rabelais and Ronsard, and the later novel by Jean Calvin. P/NP or letter grading.

116C. Late French Humanism. (4) Lecture, three hours. Emphasis on Montaigne’s Essais with other texts from the Religious Wars period. P/NP or letter grading.

117A-117B-117C. 17th Century. (4-4-4) Lecture, three hours. P/NP or letter grading:

117A. Theater. (4) Lecture, three hours. Study of French comedy and/or tragedy through representa-
tive works, including those by Corneille, Molière, and Racine. P/NP or letter grading.

117B. Prose. (4) Lecture, three hours. Study of 17th-century philosophers, moralists, and/or novelists such as Pascal, La Rochefoucault, La Bruyère, La Fayette, and La Fontaine. P/NP or letter grading.

117C. Culture and Society. (4) Lecture, three hours. Study of 17th-century political, social, religious, and courtly aspects, including libertinism and salons milieux, la Fronde, and Versailles. P/NP or letter grading.

118A-118B-118C. 18th Century. (4-4-4) Lecture, three hours. P/NP or letter grading:

118A. Satire. (4) Lecture, three hours. Readings in-
clude Montesquieu’s Lettres persanes, Diderot’s Neveu de Rameau and Rêve de l’Aménte, and Vol-
taire’s Cynic Pole P/NP or letter grading.

118B. The Novel. (4) Lecture, three hours. Readings include Prévost’s Manon Lescaut, Diderot’s La Rê-
ligieuse and Jacques le fataliste, excerpts from Rous-
seau’s Julie, and Laclos’s Les Liaisons dangereuses. P/NP or letter grading.

118C. Theater. (4) Lecture, three hours. Readings in-
clude selected plays of Marivaux and Beaumarchais, as well as selections from theoretical writings of Di-
derot and Rousseau. P/NP or letter grading.

119A-119B. 19th Century. (4 each) Lecture, three hours. P/NP or letter grading:

119A. Romanticism. (4) Lecture, three hours. Read-
ings of representative poets, novelists, and play-
wrights of the Romantic era such as Chateaubriand, Lamartine, Hugo, Vigny, Balzac, and Stendhal. P/NP or letter grading.

119B. Generation of 1848. (4) Lecture, three hours. Readings of representative writers of the 1840s and the Second Empire such as Baudelaire, Nerat, Baudelaire, Flaubert, and Mérimée. May also include the théâtre à thèse and Parnassian poetry. P/NP or letter grading.

119C. Naturalism and Symbolism. (4) Lecture, three hours. Study of naturalism in the novel and drama as represented by Zola, Maupassant, and Goncourt, and of symbolism in the poetry of Baudelaire, Verlaine, Rimbaud, and Mallarmé. P/NP or letter grading.
119D. Turn of the Century. (4) Lecture, three hours. Study of genres and trends from 1885 through World War I, with focus on writers such as Hugonie, Laforgue, Barres, Alain-Fournier, Jarry, Roussel, France, and Romain-Roland. P/NP or letter grading.

120A-120B-120C. 20th Century. (4-4-4) Lecture, three hours. P/NP or letter grading.


120B. Literature from 1918 to 1945. (4) Lecture, three hours. Study of works by surrealists and other major modernist writers such as Breton, Eluard, Soupault, Eluard, Giraudoux, and Anouilh. P/NP or letter grading.

120C. Post-World War II Literature. (4) Lecture, three hours. Study of works by existentialists and other major writers such as Robbe-Grillet, Beckett, Genet, Ponge, and Duras. P/NP or letter grading.

121A-121B. Francophone African Literature. (4-4) Lecture, three hours. P/NP or letter grading.


121B. (4) Lecture, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, anticolonialism, nationalism, resistance and dissolution, and postcolonial theory. Concurrently scheduled with course C203, P/NP or letter grading.


125. Evolution of French Comedy. (4) Lecture, three hours. Study of history and evolution of comedy from the Middle Ages to the theater of the absurd.

130. Special Topics in French and Francophone Cultures. (4) Lecture, three hours. Requisites: courses 6, 12. Study of French and Francophone cultures of Middle Ages, Renaissance, Ancien Régime, and 19th and 20th centuries. Fourth hour may be required for viewing films and other laboratory activities. May be repeated for credit. Letter grading.

132. Contemporary France. (4) Lecture, three hours. Social, cultural, and political institutions and/or movements in 20th-century France.

M140. Women's Studies in French Literature. (4) (Same as Women's Studies M140.) Lecture, three hours. Exploration of a selected aspect of the situation of women in French literature as author, character, symbol, etc. P/NP or letter grading.

141. Cinema and Literature in France. (4) Lecture, three hours. Additional hours may be required for viewing films and other laboratory activities. Study of interaction between cinema and literature in its generic, thematic, and sociocultural aspects.

142. Poetry and Music. (4) Lecture, three hours. In-depth study of relation between music and literature, with emphasis on the setting of poetical texts to music, from the troubadours to modern times.

M143. Rhetoric of Rule. (4) (Same as Communication Studies M117.) Lecture, three hours. Exploration of how and why power is symbolically constructed by comparing past and present attempts to manipulate rulers’ images in the “media” of their respective cultures. P/NP or letter grading.

150. Studies in Medieval Literature. (4) May be repeated once for credit with consent of major adviser.

151. Studies in 16th-Century Literature. (4) May be repeated once for credit with consent of major adviser.

152. Studies in 17th-Century Literature. (4) May be repeated once for credit with consent of major adviser.

153. Studies in 18th-Century Literature. (4) May be repeated once for credit with consent of major adviser.

154. Studies in 19th-Century Literature. (4) May be repeated once for credit with consent of major adviser.

155. Studies in 20th-Century Literature. (4) May be repeated once for credit with consent of major adviser.

156. Studies in Contemporary French and Francophone Literature. (4) Lecture, three hours. May be repeated once for credit with consent of major adviser.

157. Studies in French Critical Theory and Philosophy. (4) Lecture, three hours. Advanced study of major concepts in contemporary French thought, with attention to its influence on French literature and culture, and its application to literary and nonliterary texts.

158. Studies in History of Ideas. (4) Lecture, three hours. Specific themes which address a particular problem of French literature, civilization, or ideas. May be repeated for credit with consent of major adviser.

160. Francophone Cultures, in English. (4) Lecture, three hours. Study of historical, anthropological, legal, literary, or filmic texts to provide students with a broad view of some main issues in field of colonial and postcolonial Francophone studies. P/NP or letter grading.

162. Modern French Thought in Translation. (4) Lecture, three hours. Reading and discussion of contemporary works in translation. May be repeated for credit with consent of major adviser. P/NP or letter grading.

164A-164B-164C. The French Novel in Translation. (4-4-4) Lecture, three hours. Texts and authors to be studied announced in advance for each offering.

165. Topics in French Literature in Translation. (4) Lecture, three hours. Variable topics to be announced each term. May be repeated for credit with consent of major adviser. P/NP or letter grading.


170A-170B. Thesis Tutorial. (4-4) Tutorial, to be arranged. Limited to senior French majors with 3.5 departmental and 3.25 overall grade-point averages. May be repeated for credit. Letter grading.

199. Special Studies in French. (2 to 6) Preparation: consultation with undergraduate adviser. Limited to juniors/seniors. May be repeated once.

Graduate Courses


201. Techniques of Literary Analysis. (4) Formerly numbered 205.) Lecture, three hours. Practice in close analysis of literary texts, including explication de texte S/U or letter grading.

202. Cultural Studies. (4) Lecture, three hours. Introduction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emergent disciplines and theories such as sociology and structuralism, the city, revolution, 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, Virili, S/U or letter grading.

203. Contemporary Francophone Literature. (4) Formerly numbered C222.) Lecture, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, anticolonialism, nationalism, resistance and dissolution, and postcolonial theory. Concurrently scheduled with course C212B, S/U or letter grading.

204. Studies in Autobiography. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to genre of autobiography in literatures in French across centuries. Topics include early modern approaches to self-writing, Rousseau and emergence of modern self, women’s autobiography in France and Francophone world. Theorists may include Georges Gushちら, Julia Kristeva, Paul de Man, Jacques Derrida, Helene Cixous, Michel Foucault, Pierre Bourdieu, Toril Moi. S/U or letter grading.

205A-205B. Studies in Cinema and Literature. (4-4) Lecture, three hours. Discussion of selected topics in French and Francophone cinema and literature. S/U or letter grading.

206A-206B. Studies in Generative Anthropology. (4-4) (Formerly numbered 241.) Lecture, three hours. Discussion of principles of generative anthropological approach to given set of literary, philosophical, and scientific texts and/or other cultural phenomena. S/U or letter grading.

207. Studies in History of Ideas. (4) (Formerly numbered 250A-250B.) Three hours. Particular problems in French literature and ideas. May be repeated for credit. S/U or letter grading.


215A-215B. Medieval Literature. (4-4) Lecture, three hours. Requisite: course 214. Development of a vernacular culture in the Middle Ages. Emphasis on social functions of texts designated as “literary” by modernity as part of social, economic, and political evolutions in which those texts played key roles. Letter grading.

215A. Medieval Subject; 215B. Narrative Types.


220. 20th Century. (4) Lecture, three hours. Overview, both historical and analytical, of 20th-century French literature set in context of several key critical topics that interrogate canonical interpretation. Letter grading.

242. Introduction to Study of Narrative. (4) Lecture, three hours. First survey of modern French methodology for critical analysis and interpretation of narrative, with examples from all periods of French literature.

250A. Major Medieval Texts. (4) Seminar, three hours. Requisite: course 214. Intensive study of individual texts from multiple perspectives, such as La Chanson de Roland, a roman de tro-yes, Le Roman de la rose, or François Villon’s Grand Testament. May be repeated for credit.

250B. Structures of Medieval Literature. (4) Seminar, three hours. Requisite: course 214. Advanced study of a variety of texts in terms of textual and historical structures. May be repeated for credit.
FRESHMAN GENERAL EDUCATION CLUSTERS

College of Letters and Science

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Scope and Objectives

Available to entering freshmen only, general education clusters are an option for satisfying general education requirements. Clusters are yearlong, collaboratively taught, interdisciplinary courses that focus on a topic of timely importance, such as the global environment or intercultural dynamics. The courses are taught by some of UCLA’s most distinguished faculty members and seasoned graduate students. During Fall and Winter Quarters, students attend lectures 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.

General education 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 nearly a third of their general education course requirements, satisfy their general education seminar requirement, and fulfill the College of Letters and Science Writing II requirement. Cluster students are also guaranteed enrollment in an English Composition 3 (Writing I) class during Fall or Winter Quarter of their cluster year. They are eligible for credit to students with credit for former course 21C. Topics may include global governance, and overall impact of globalization on human society. 22CW. Special Topics. (Formerly numbered 22.) Seminar, three hours. Enforced requisites: course 22B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 22C. Topics include global governance, development, and health. Satisfies Letters and Science Writing II requirement.

22A-22B-22CW. Toward World Economy: Perils and Promise of Globalization. (5-5-5) Course 22A is enforced requisite to 22B, which is enforced requisite to 22CW. Letter grading. 22A-22B. Lecture, three hours; discussion, two hours. Introduction to first-year freshmen. Letter grading. 22A-22B. Lecture, four hours; discussion, two hours. Introduction to historical development and evolution of performing arts, aesthetic theories and practices, and political, social, and cultural contexts within which performance has evolved. 23CW. Special Topics. (Formerly numbered 23.) Seminar, three hours. Enforced requisites: course 23B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 23C. Topics include origins and ideas of performance, art and performance, and music as cultural expression. Satisfies Letters and Science Writing II requirement.

24A-24B-24CW. Work, Labor, and Social Justice in the U.S. (5-5-5) Course 24A is enforced requisite to 24B, which is enforced requisite to 24CW. Open only to first-year freshmen. Letter grading. 24A-24B. 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. 24CW. Special Topics. Seminar, three hours. Enforced requisites: course 24B, and English Composition 3 or 3H. Topics include labor law/history, gender, race, and workplace. Satisfies Letters and Science Writing II requirement.
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.

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 breadth background in the field with specific tracks. The Geography/Environmental Studies major focuses on the impact of humans on the natural environment.

The department also offers M.A. and Ph.D. degrees. Student research projects are conducted in collaboration with a faculty adviser and advisor.
sory 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 B.A.

The Geography major allows students to combine a broad background in the field with more specific interests and career goals. Students can elect to concentrate in one of several areas of geography such as urban, economic, cultural, environmental, physical, or biogeography. They should consult with the undergraduate adviser to plan a program suitable to their personal objectives.

Preparation for the Major

Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4, and M40. All courses must be taken for a letter grade.

Transfer Students

To be admitted as Geography majors, transfer students 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.

The Major

Required: Twelve upper division geography courses taken for a letter grade which must be distributed as follows: (1) natural systems core — two courses from 100, 103, 104, 105, 108, 112; (2) human systems core — two courses from 118, 133, 134, 140, 142, 148, 150; (3) environmental studies cluster — five courses from 106, M107, 110, 116, 120, 121, 122, 123, 124, 125, 126, M128, 129, 131, 132, 135, 136, M137; (4) procedures — two courses (8 units) from 100A (2 units), 105A (2 units), 163, 167 (6 units), 168, 169, 170, M171, 172; and (5) regions — one course from 122, 135, 136, M137, 152, 156, 180, 181, 182A, 183, 185, 186, 187, 191.

Geography/Environmental Studies majors are advised to complete the required courses in the natural and human systems cores before taking courses in the environmental studies cluster.

Honors Program

The 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 199HA and 199HB, each with a different faculty sponsor, and earn grades of A– or better. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsors. Contact the undergraduate advising office for further information.

Computing Specialization

Majors in Geography and Geography/Environmental Studies 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, 30, 60, and Mathematics 61 with a minimum grade of C in each course (Mathematics 32A and 32B are also highly recommended), and (3) completing at least two courses from Geography 104, 167, 168, M171. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

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, 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, 1254 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. 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.

No more than 8 units may be applied toward both the students’ majors and this 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.

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 a cumulative grade-point average of 2.0 or better and file a petition in the Geography Department Advising Office, 1254 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, or 4. 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.

No more than 8 units may be applied toward both the students’ majors and this 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.
All minor courses 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, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Geography.

Geography

Lower Division Courses

1. Earth’s Physical Environment. (5) Lecture, three hours; laboratory, two hours. Study of Earth’s physical environment with particular reference to nature and distribution of landforms and climate and their significance to people. P/NP or letter grading.


3. Cultural Geography. (5) Lecture, three hours; discussion, two hours. Introduction to cultural geography of modern world, with examination of key concepts of space, place, and landscape as these have shaped and been shaped by connections between societies and their natural environments. Examples from variety of landscapes and places since 1800 and especially from Los Angeles region. P/NP or letter grading.

4. Globalization: Regional Development and World Economy. (5) Lecture, three hours; discussion, one hour. Economic geography explores spatial distribution of all kinds 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 the Earth’s Ecosystems. (5) Lecture, three hours; laboratory, two hours. Exploration of ways in which human activity impacts natural environment and how modification of environment can eventually have significant consequences for human activity. Examination, using case studies, of real environmental problems that confront us today. P/NP or letter grading.

M40. Introduction to Statistical Methods for Social Sciences. (5) (Same as Anthropology M80, Sociolo- gy M18, and Statistics M12.) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for Statistics 10, 11, or 13 (or former Economics M40). Organismic Biology M22, Statistics M11, or M13). Elements of statistical analysis for social sciences. Presentation and interpretation of data, descriptive statistics, theory of probability and basic sampling distributions, statistical inference including principles of estimation and tests of hypotheses, introduction to regression and correlation. P/NP or letter grading.

M107. Soil and Water Conservation. (4) (Formerly numbered 107.) (Same as Environment M114.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Systematic study of processes of soil and water losses caused by natural and human activities, and other rural uses of land. P/NP or letter grading.

108. World Vegetation. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of the vegetation of the world. P/NP or letter grading.


110. Population and Natural Resources. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of the relationships between human population and natural resources. P/NP or letter grading.

111. Forest Ecosystems. (4) Lecture, three hours; reading period, one hour; field trips. Designed for juniors/seniors. Examination of forest ecosystems and their role in the environment. P/NP or letter grading.


M115. Environmentalism: Past, Present, and Future. (4 to 6) (Same as Urban Planning CM189.) Discussion; three hours; optional field study, five to 10 hours. Exploration of history, politics, and theories of environmental movements, dynamics of race, class, and gender in relation to environmental agendas, and potential role of environmentalism in reshaping our society. Readings, discussion, and research papers. Offered annually as a graduate research seminar and biannually as an undergraduate upper division lecture and field studies program. P/NP or letter grading.

116. Biogeography of Plant and Animal Invasions. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of the invasion of new environments by plants and animals introduced through natural processes or by human activity. P/NP or letter grading.

118. Medical Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of the relationships between human population and disease. P/NP or letter grading.


125. Health and the Global Environment. (4) Lecture, three hours; reading period, one hour. Impact of the environment and lifestyle on individual health examined from social, economic, and cultural perspectives with examples from both developed and developing countries. P/NP or letter grading.


129. Seminar: Environmental Studies. (4) Seminar, three hours. Two hours lecture; one hour research. Requisite: one course each from natural and human systems cores, three environmental studies cluster courses. Literature/quantitative analysis of problems associated with national 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 and exploration of new regions, with special emphasis on period from Marco Polo to the present.

131. Environmental Change. (4) Lecture, three hours; reading period, one hour. Requisite: one course from courses 11 or 12. Examination of natural forces producing environmental changes over past two million years. How present landscape reflects past conditions. Effects of environmental change on people. Increasing importance of human activity in environmental modification. Focus on impact of natural and anthropogenic changes on forests. P/NP or letter grading.

132. Food, Environment, and Agriculture. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Historical and thematic orientation to agriculture revolutions and their role in environmental and cultural transformations in human history. P/NP or letter grading.

133. Cultural Geography of the Modern World. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors and graduate students. Historical and structural approach to cultural geography of modern world, with special emphasis on structure and functioning of its core, semi-periphery, and periphery. P/NP or letter grading.

134. Space, Place, and Nature in Western Thought. (4) Lecture, three hours. Designed for juniors/seniors. History of development of basic ideas of geography — space, place, and nature — in Western thought. Relationship between those ideas and conceptions of science, knowledge, and inquiry. P/NP or letter grading.


136. Technology, Nature, and the American Landscape. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of evolution of cultural landscapes of the area that is now the U.S. Examination of past geographies and of geographical change through time. P/NP or letter grading.

M137. Historical Geography of American Environment. (4) (Formerly numbered 137.) (Same as Environmental M137.) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes of natural environment in the U.S. during historical time, with emphasis on change 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. Communication technologies, such as personal computers and Internet, seem to be connected to dramatic changes in identities of people, groups, and places. Exploration of these changes and their implications for social institutions and human values and practices. P/NP or letter grading.

140. Political Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatiality in politics, with particular spatial constitution of political power, control over space as central component to political struggles. Studies at local, national, and global levels. P/NP or letter grading.

142. Population Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of social and behavioral perspectives influencing people in their patterns of demographic change, free movement, and mobility, with special emphasis on spatial relationships and selection of case studies. P/NP or letter grading.

144. Ethnicity in the American City. (4) Lecture, three hours; reading period, two hours. Recommended preparation: course 142. Designed for juniors/seniors. Designed to encourage students to identify critical thinking about geographical aspects of ethnicity in contemporary America, with focus specifically on nonwhite ethnic minorities (blacks, Hispanics, Asian Americans, and Native Americans). Use of a comparative perspective to explain changing distribution, social, economic, and political behavior, and adjustment problems these groups face in contemporary American city. P/NP or letter grading.

146. Gender, Race, and Geography of Employment in American Cities. (4) Lecture, three hours; reading period, two hours. Designed for juniors/seniors. Geography of employment of men and women of different racial and ethnic backgrounds in American cities. Examination of interrelationships between space and division of labor, and spatial restructuring on employment of women and minorities. P/NP or letter grading.


M149. Transportation Geography. (4) (Same as Urban Planning M149.) Requisite: course 3 or 4. Designed for juniors/seniors. Study of geographical aspects of transportation, focusing on characteristics and functions of the various modes and on complexities of intra-urban transportation.

150. Urban Geography. (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 cities. 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 cities. P/NP or 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 industrial location theory in light of contemporary theories. Location and patterns of regional economic production and growth. General theory of space and division of labor, and spatial restructuring on employment of women and minorities. 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, environmental and spatial problems of the Los Angeles metropolitan area. P/NP or letter grading.


159A-159E. Problems in Geography. (4 each) Discussion, three hours; reading period, one hour. Preparation: completion of three courses in a concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from courses within a concentration. P/NP or letter grading.

159A. Urban and Regional Development Studies; 159B. Spatial Demography and Social Processes in the City; 159C. Culture and Environment in the Modern World; 159D. Physical Geography; 159E. Biogeography.
Procedures

163. Field Analysis in Biogeography. (4) Fieldwork, eight hours. Requisites: courses 2, 5, 108, 112. Examination of field procedures and intellectual concepts used in observing, measuring, analyzing, and interpreting of phenomena pertinent to biogeography and interrelated human influences. P/NP or letter grading.

166. Images of Earth: The World from Above. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Survey of the field of cartography. Theory and construction of map projections, compilation procedures, principles of generalization, symbolization, terrain representation, lettering, drafting and scripting, and map reproduction methods. P/NP or letter grading.


168. Introduction to Geographic Information Systems. (4) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Introduction to basic geographic information systems (GIS) concepts and spatial analysis. Data structures, topology, and attribute information. Laboratory exercises use database query, manipulation, and spatial analysis to address "real world" problems. P/NP or letter grading.

169. Satellite Remote Sensing and Imaging Geographic Information Systems. (4) Lecture, two hours; laboratory, one hour. Introduction to fast-growing field of environmental monitoring from space. Application of Landsat, radar, Global Positioning System (GPS), and Earth Observing System satellites to land-use change, oceanography, meteorology, and environmental monitoring. Introduction to digital image-processing and imaging geographic information system (GIS) software. P/NP or letter grading.


171. Introduction to Spatial Statistics. (4) Formerly numbered 171.) (Same as Statistics M140.) Lecture, three hours; laboratory, one hour. Requisite: course M40. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.


Regions


181. Mexico, Central America, Caribbean. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding the historical development of Middle America and the contemporary economic and cultural geography of Mexico and countries of Central America and the West Indies. P/NP or letter grading.

182A. Spanish South America. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of physical, cultural, and political factors influencing plant distributions. P/NP or letter grading.

182B. Brazil. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic conditions and their relation to economic, social, and political problems in Europe. P/NP or letter grading.

183. Europe. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic conditions and their relation to economic, social, and political problems in Europe. P/NP or letter grading.

185. South and Southeast Asia. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Regional synthesis with varying emphasis on the people of South or Southeast Asia in their physical, biotic, and cultural environment and its dynamic transformation. P/NP or letter grading.

186. Contemporary China. (4) Lecture, three hours; reading period, one hour. Designed for juniors/ seniors. Systematic geographic analysis of elements of landscape, resources, and regional economic characteristics of the People’s Republic of China. Dynamics that have led to China’s major role in the East Asian and international scene, with special attention to China-Japan and Sino-American relations and their geographic bases. P/NP or letter grading.

187. Middle East. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Analysis of economic, social, and political geography of the area extending from Iran to Morocco and from Turkey to Sudan. Emphasis on geographical themes and problems during historical and modern times. P/NP or letter grading.

189. California. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Systematic and regional treatment of geography of California, including physical, cultural, and economic aspects and detailed studies of the various regions. P/NP or letter grading.

190. Northwest United States and Canada. (4) Lecture, three hours; reading period, one hour. Designed for seniors. Continuation to be of A quality, student is allowed to continue in honors program. P/NP or letter grading. If that work is determined to be of A quality, student is allowed to continue in honors program. P/NP or letter grading.

191. 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 the various regions. P/NP or letter grading.

Special Studies

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to juniors with a B average in the major or seniors. 199HA-199HB. Honors in Geography I, II. (4-4) Tutorial, to be arranged. Preparation: 3.25 grade-point average overall, at least five upper division geography courses with a 3.5 grade-point average. 199HA. Independent study course taught by team of two faculty members who assist student with bibliographic research and/or field research on a topic of mutual interest to student and the faculty members. Successful completion of course 199HA entails preparation of a detailed bibliography and outline (to be evaluated by the two faculty members) for writing of a substantial paper during course 199HB. If that work is determined to be of A quality, student is allowed to continue in honors program. If that work is determined to be of B quality, student is permitted to continue in honors program. 199HB. Devoted to writing of substantial paper researched and outlined in course 199HA. It also is evaluated by the two faculty members. If paper is determined to be of A quality, student graduates with honors in geography. If paper is graded B or below, credit is awarded, but student does not receive honors.

219. Independent Study for Internships. (2 to 4) Independent study course supervised jointly by Center for Extension, Population and Service Learning and faculty adviser. Further supervision to be provided by placement for which student is doing internship. May not be applied toward major requirements. P/NP grading.

Graduate Courses

Environment

200. History and Paradigms of Geomorphology. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Preparation: two courses from 101, 103, 105, M107. Required: course 100. Analysis of geomorphic theories since the scientific revolution, with emphasis on catastrophism, uniformitarianism, glacial theories, isostasy and eustasy, evolution and cyclicity, thermodynamics and mechanics, quantification, and current paradigms. View of each theme in its contemporary milieu.

201. Coastal Geomorphology Seminar. (4) Discussion, three hours; reading period, five hours; fieldwork. Requisites: courses 100, 101. Discussion of selected topics pertaining to geophysical processes and responses observable in the coastal zone. May be repeated for credit.

202. Fluvial Geomorphology Seminar. (4) Discussion, three hours; reading period, five hours; fieldwork. Requisites: courses 100 and 105, or Civil Engineering 150. Discussion of selected topics pertaining to action of running water in rivers in the physical landscape. May be repeated for credit.

203. Glacial Geomorphology Seminar. (4) Discussion, three hours; reading period, five hours; fieldwork. Requisites: courses 100, 103. Discussion of selected topics pertaining to action of snow and ice in arctic and alpine environments. May be repeated for credit.

204A-204B. Advanced Climatology. (4) Lecture, three hours; laboratory, one hour. Preparation: first year of calculus and acquaintance with FORTRAN IV. Course 104. Courses must be taken in sequence. Introduction to tools and concepts of environmental physics of relevance to natural and man-made landscapes. Such basic intellectual, mathematical, and computer programming tools are of special concern to physical geographers, ecologists, and architects.

205. Seminar: Climatology. (4) Discussion, three hours; reading period, one hour. Requisites: courses 204A, 204B, 204C. Selected topics. May be repeated for credit.

206. Introduction to Biophysical Modeling of Land Surface Processes. (4) Lecture, two hours; laboratory, one hour. Reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand natural, 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.

208. Advanced Biogeography: Plants. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisites: courses 108, and 110 or 116. Intensive review and analysis of physical and cultural factors influencing plant distributions.

212. Advanced Biogeography: Animals. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisite: course 112. Intensive review and analysis of physical and cultural factors influencing animal distributions. S/U or letter grading.

213. Seminar: Biogeography. (4) Discussion, three hours; reading period, two hours. Requisites: course 208 or 212. Related research projects growing out of course 208 or 212. May be repeated for credit.

215. Quaternary Studies: Physical Aspects. (4) Discussion, three hours; reading period, two hours; fieldwork, three hours. Preparation: at least one course from 200 through 205 or an appropriate graduate course in atmospheric sciences or Earth and space sciences. Analysis of the changing physical environment of the Quaternary period. May be repeated for credit.

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217. Quaternary Studies: Ecological Aspects. (4) Discussion, three hours; reading period, two hours. Requisite: course 142A, 204B, and 204C or 208 or 212 or an appropriate graduate course in anthropology, botany, Earth and space sciences, or zoology. Analysis of ecological aspects of environmental change during the Quaternary period. May be repeated for credit.

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.

223. Seminar: Humid Tropics. (4) Seminar, three hours; reading period, two hours. Designed for graduate students. Selected topics. Biophysical and cultural complexes of the humid tropics, with emphasis on problems related to human settlement and livelihood. May be repeated for credit. S/U or letter grading.

M229. Resource-Based Development. (4) (Same as Urban Planning M234C.) Discussion, three hours. Recommended: Preparation: Urban Planning 234A. 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 the state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

230. Political Ecology. (4) Seminar, three hours; reading period, three hours. Designed for graduate students. Exploration of theoretical constructs and approaches to analyses of development and the environment as related with political ecology. Examination of relations between poverty, ecological degradation, and global restructuring. Case studies of changing production patterns and ecology of land-use patterns within different and emerging economic and political contexts. S/U or letter grading.

231. Terminology and Theory in Political Economy: Deconstruction and Reconstruction of Approaches in Research, Writing, and Practice. (4) Discussion, three hours; reading period, three hours. Designed for graduate students. Deconstruction of oft-used terms in intellectual discourse with goal of making assumptions more explicit, analyzing more concisely, and use of theory to inform practice (and vice versa) more successful. Attempt to reconstruct a more concise and useful terminology to inform theoretical inquiry and research practice. S/U or letter grading.

232. Advanced Cultural Geography. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions around specific aspects of development of cultural landscape in different geographic environments.

233. Seminar: Cultural Geography. (4) 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.

234. Environment and Subsistence in Indigenous Cultures. (4) Seminar, three hours. Discussion on resource management strategies and environmental issues in indigenous cultures. Topics vary from year to year.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical geography in North America and Europe. May be repeated for credit. S/U or letter grading.

240. Advanced Political Geography: Geopolitics. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Laboratory: study of theories and principles of geopolitics. Selected regions used as examples of differing techniques of study in geopolitics. S/U or letter grading.

241. Seminar: Political Geography. (4) Discussion, three hours; reading period, two hours. Requisite: course 240. Related research projects growing out of course 240. May be repeated for credit.


244. Topics in Spatial Demography. (4) Discussion, three hours; reading period, two hours. Selected topics in migration and mobility, especially the nature of housing choice and neighborhood change. May be repeated for credit. S/U or letter grading.

249. Seminar: Economic Geography. (4) Discussion, three hours; reading period, two hours. Requisite: course 248. Related research projects growing out of course 248. May be repeated for credit.

250. Urban Systems. (4) Lecture, two hours; discussion, one hour; reading period, one hour. General study of hierarchy of urban places, including diffusion within urban hierarchy and theories to account for location and size distribution of cities. S/U or letter grading.

251. Seminar: Urban Geography. (4) Discussion, three hours; reading period, two hours. Requisite: course 250. Related research projects growing out of course 250. May be repeated for credit.

254. Migration and Residential Mobility. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Description and modeling of national, regional, and intra-urban migration.

260. Advanced Field and Laboratory Analysis in Geomorphology. (4) Laboratory/fieldwork, 10 hours. Preparation: two courses from 200, 201, 202, 203, 215. Designed for graduate students. Examination of advanced field and laboratory procedures used in contemporary geomorphic research, with emphasis on scientific design, instrumentation, and data evaluation.

262. Advanced Field Analysis: Biogeography. (8) Fieldwork, 10 hours. Observation, measurement, and analysis of biogeographic phenomena, including identification and evaluation of biotic populations and communities and their interactions resulting from the impact of human activity.

268. Advanced Projects in Geographic Information Systems (GIS)/Remote Sensing. (4) Discussion, one hour; laboratory, three hours. Recommend- ed: course 169 or 170 or Earth and Space Sciences 150. Familiarity with a GIS or image processing package expected. Individualized research projects conducted on UNIX platforms within a structured course environment. All aspects of a modest but original project, including data acquisition, ingestion, and analysis; interpretation of results and presentation in publication-style format.

292. Advanced Regional Geography: Selected Regions. (4) Seminar, three hours; reading period, one hour. Evolution of the field of geography in the 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as a modern academic discipline.

295. Seminar: Geographic Thought. (4) Discussion, three hours; reading period, one hour. Designed for graduate students. Discussion and study of topics significant to growth of modern philosophy of geography.

296A. Esos Seminar: Controversies in Earth System Science. (1) Seminar, two hours. Biweekly seminar to discuss emerging issues and controversies in earth system science. Topics include oscillatory climate phenomena, biogeography, biocomplexity, land/Earth interactions, paleoclimate, and human-induced environmental change. S/U grading.

296B. Cultural Geography Methods Workshop. (1) Seminar, two hours. Biweekly forum for presentation and discussion of new concepts, theories, and methods at juncture of geography, humanities, and environmental study. Principal focus on landscape, but scope of cultural study within geography also embraced. S/U grading.

Core Courses

298A. Philosophical Issues in Geographical Inquiry. (4) Lecture, three hours; reading period, one hour. Evolution of the field of geography in the 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as a modern academic discipline.

298B. History of Modern Geography. (4) Lecture, three hours; reading period, one hour. Evolution of the field of geography in the 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as a modern academic discipline.

298C. Statistical Methods for Geographic Research. (4) Lecture, three hours; laboratory, two hours. Requisite: course M171. Use of linear models, discriminant functions, and factor analysis to analyze problems in geography.

Special Studies

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

495. Teaching College Geography. (2) Seminar, one hour; laboratory, three hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) May be repeated for credit. S/U grading.
Possible. Language, literature, and culture at all levels of study various specializations are available in Afrikaans, Dutch, Old Norse, and Icelandic, in addition to German. The program also provides opportunity for study, work-study, and internships in a German-speaking country or in a country related to the course of study.

Undergraduate Study

Grammar/Composition Courses
No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Afrikaans, Dutch, German, and Old Norse grammar and/or composition. Students with demonstrated preparation may be permitted to transfer to a more advanced course with consent of the instructor.

German B.A.
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 the language program supervisor. Students in Plan C must also take Linguistics 20.

Transfer Students
To be admitted as German majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of German.

The Major
Three plans are offered by the department:

Plan A: Literature and Culture
Plan A is designed for students who are interested in studying German language and thought by selecting courses in literature, film, folklore, and contemporary culture studies.

Required: German 130A, 130B, and 11 upper division German courses, at least three of which must be at the 150 level or above. Two of the 11 courses may be upper division courses in other departments. Students who enroll in any course taught in English translation in the department must sign a contract with the instructor that all texts authored in German are to be read in the original language. The contract must then be filed with the undergraduate advisor. Only two such contract courses may be applied toward the major. All courses must be taken for a letter grade.

Plan B: German Studies
Plan B is designed for students whose interests are primarily interdisciplinary in nature. Departmental majors receive credit not only for upper division courses in German literature, film, folklore, and contemporary culture, but for courses in related fields such as history, political science, philosophy, music, and others.

Required: German 130A, 130B, seven upper division German courses (at least two of which must be at the 150 level or above), and four upper division courses in a related field or fields selected in consultation with the undergraduate advisor. Students who enroll in any course taught in English translation in the department must join a contract with the instructor that all texts authored in German are to be read in the original language. The contract must then be filed with the undergraduate advisor. Only two such contract courses may be applied toward the major. All courses must be taken for a letter grade.

Plan C: Germanic Languages/Linguistics
Plan C is intended for students interested in the study of languages and linguistics and allows students to study more than one Germanic language.

Required: German 130A, 130B, 150, 170, C172, and eight additional upper division courses as follows: three courses in one other Germanic language (Scandinavian languages taught in the Scandinavian Section may be applied by petition to the undergraduate advisor), three linguistics courses from outside the department (i.e., anthropology, applied linguistics, linguistics, sociology) selected in consultation with the undergraduate advisor, and two electives from department offerings (excluding German 100A, 100B, 100C, and courses taught in English translation). All courses must be taken for a letter grade.

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 195 with a grade of A. Contact the departmental honors advisor for procedures, special arrangements, possible exceptions, and other information.

Single Subject Credential in German
Students desiring the single subject credential in German should consult the Department of Education, 1009 Moore Hall (310-825-8328), and the Department of Germanic Languages.

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 (20 units): Any five German courses (excluding German literature in translation).

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.
Germainic Languages Minor
To enter the Germainic Languages minor, students must have an overall grade-point average of 2.0 or better.

Required Upper Division Courses (28 units):
Seven courses in any of the following languages and literatures: Afrikaans, Dutch, German (excluding German literature in translation), Hungarian, Old Norse, Scandinavian languages, Yiddish.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Germainic Languages offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Germainic Languages and Master of Arts (M.A.) degree in Scandinavian (see Scandinavian Section).

Afrikaans
Lower Division Course
40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Preapartheid to Post-apartheid Era, in English Translation. (5) Formerly numbered 114.) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Development of all literature in Afrikaans, with special attention to authors and poets who protested apartheid — Brink, Breytenbach, Van Heerden, Jonker, Krog, Kok, Krog, Leroux, Rabie, Small, and Willemse. Additional readings by Coetzee, De Lange, Krog, and others on censorship, imprisonment, South African history, and postcolonial literary theory. P/NP or letter grading.

Upper Division Courses
105A. Elementary Afrikaans. (4) Lecture, four hours; language laboratory. Introduction to a sister language of modern Dutch and a 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 the Genootskap van Regte Afrikaners in 1875 to the present time, including novels by recent writers such as Eybers, Opperman, W.E.G. Louw, Van Wyk Louw, and Breytenbach. P/NP or letter grading.
199. Special Studies in Afrikaans. (2 to 4) Tutorial, to be arranged. Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course and who present such a course as a requisite. Letter grading.

Graduate Courses
596. Directed Individual Study or Research in Afrikaans. (4) Tutorial, to be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once. S/U grading.
597. Preparation for Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged with instructor (see department for I.D. number). S/U grading.

Dutch
Upper Division Courses
100. Modern Dutch Culture and Society. (4) Lecture, three hours. Lectures, discussions, and readings in English. Survey of art, architecture, literature, film, and Dutch government (including “Pillarization” — verzuiling), the two World Wars, housing policy, mass media, and rise of a multiracial society. Letter grading.
103A-103B. Elementary Dutch. (4-4) Lecture, four hours; language laboratory. Course 103A is requisite to 103B. Introduction to the standard language of the Netherlands and one of the three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.
104A-104B. Accelerated Dutch. (5-5) Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.
113. Modern Dutch and Flemish Literature in Translation. (4) Lecture, three hours. Readings and analysis of works by selected authors of the Netherlands and northern (Flemish) Belgium such as Boon, Claus, Couperus, Vingboons, Munk, Pastoor, Mutatui, and Revé and selected poets such as Campert, Gezelle, Gorter, Kooi, Lucebert, Nijhoff, Van Ostaijen, and Vroman. Letter grading.
131. Introduction to Modern Dutch Literature. (4) Discussion, three hours. Requisite: course 103B or 120. Selected works of literature of the Netherlands and northern (Flemish) Belgium from the mid-1850s to the present, including novels by such writers as Multatuli, Couperus, Herman, Munkish, and Revé and poetry by such groups as the symbolist Beweging van Tachtig and the post-War Beweging van Vijftig. P/NP or letter grading.
199. Special Studies in Dutch. (2 to 4) Tutorial, to be arranged. Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course and who present such a course as a requisite. Letter grading.

Graduate Courses
596. Directed Individual Study or Research in Dutch. (4) Tutorial, to be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once. S/U grading.
597. Preparation for Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs the study (see department for I.D. number). S/U grading.

German
Lower Division Courses
1. Elementary German. (4) Lecture, five hours; laboratory, one hour. P/NP or letter grading.
1G. Elementary German for graduate students. (4) Preparation for Graduate Division foreign language reading requirement. May not be applied toward degree requirements. S/U grading.
2. Elementary German. (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.
2G. Elementary German for Graduate Students. (4) Preparation for Graduate Division foreign language reading requirement. May not be applied toward degree requirements. S/U grading.
3. Elementary German. (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 2. P/NP or letter grading.
3G. German for Graduate Students. (4) Reading and translation, three hours. Requisite: course 2G. Preparation for Graduate Division foreign language reading requirement. Intensive reading and translation of humanities and social sciences texts. May not be applied toward degree requirements. S/U grading.
5. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 4. P/NP or letter grading.
6. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 5. P/NP or letter grading.
8. Elementary German: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in German equivalent to courses 1, 2, and 3. P/NP or letter grading.
12. German Conversation. (4) Discussion, three hours. Enforced requisite: course 3. Conversation course designed for intermediate and advanced students who wish to improve their spoken command of the language. Topics of current student interest to be used as basis for conversation. P/NP or letter grading.
50A-50B. Great Works of German Literature in Translation. (4-5) Lecture. May not be applied toward completion of the major in German. P/NP or letter grading.
50A. Medieval Period through Classicism. (4) Lecture, three hours. Study and analysis of selected masterworks in English translation, including works from the earliest period, such as the heroic and courtly epic, to authors such as Grimmelshausen, Lessing, Schiller, and Goethe. P/NP or letter grading.
50B. Romanticism to the Present. (5) Lecture, three hours; discussion, one hour. Study and analysis of selected masterworks in English translation, including authors such as E.T.A. Hoffmann, Heine, Fontane, Rilke, Kafka, Brecht, Thomas Mann, Hesse, Grass, Böll, and Christa Wolf. P/NP or letter grading.
55. The City as Text: German Exile Culture in Los Angeles. (4) Lecture, three hours. Not open for credit to students who have credit for course 55H. Cultural and historical exploration of exile as site of creative activity for German writers and other artists during and after World War II. General questions of cultural migration and cultural transfer to be thematized. P/NP or letter grading.
Upper Division Courses

100A. German History and Culture before 1500. (4) Lecture, three hours; discussion, one hour. Lectures, discussions, and readings in English; knowledge of German not required. Study of German culture and society from the beginning to 1500 as represented in literature, art, and architecture. P/NP or letter grading.

100B. German History and Culture from 1500 to 1914. (4) Lecture, three hours; discussion, one hour. Lectures in English; knowledge of German not required. Study of German culture and society as represented in literature, art, music, and architecture from Reformation and invention of printing to start of World War I. P/NP or letter grading.

100C. War, Politics, Art. (5) Lecture, three hours; discussion, one hour. Analysis of interrelationship between politics, social conditions, and the 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.

102A. German Film in Cultural Context: Early German Film. (4) Lecture, two hours; discussion, one hour. Lectures and texts in English; additional readings in German for majors. Survey of German film between 1919 and 1945. Analysis of technological and stylistic development of film from silent Expressionist film to Nazi propaganda and entertainment films. Film discussions enhanced by interactive media. Letter grading.

102B. German Film in Cultural Context: New German Film. (4) Lecture, two hours; discussion, one hour. Lectures and texts in English; additional readings in German for majors. Survey of German film since 1960 in its thematic and stylistic diversity. Films authored by Werner Herzog, Fassbinder, and Margarethe von Trotta are juxtaposed with commercial comedies of the 1990s. Film discussions enhanced by interactive media. Letter grading.

104. Tristam, Isolde, and History of Heterosexuality. (4) (Same as Women’s Studies M119.) Lecture, two hours; discussion, one hour. Exploration of major heteronormative works in relation to history of sex. Lectures and discussions of the Faust theme in European literary traditions. Additional readings in German. P/NP or letter grading.

105. The Faust Tradition from the Renaissance to the Modern Age. (4) Lecture, three hours. Readings and lectures in English; additional readings in English; advanced knowledge of German not required. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual identity. Letter grading.

106. Nietzsche and Critique of Western Culture. (4) Lecture, two hours; discussion, one hour. Readings that focus on key works, such as Thus Spoke Zarathustra, of Nietzsche’s critique of Western culture and political economy. Lectures and discussions in English. P/NP or letter grading.

108. Love and Sex in German Literary Tradition. (4) (Formerly numbered 108.) Lecture, three hours. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual identity. Letter grading.

110. Nietzsche and Critique of Western Culture. (4) Lecture, two hours; discussion, one hour. Readings that focus on key works, such as Thus Spoke Zarathustra, of Nietzsche’s critique of Western culture and political economy. Lectures and discussions in English. P/NP or letter grading.

112. Jewish Writing and Thought in German Culture from 1755 to the Present. (4) Lecture, three hours. Analysis of works that represent process of Jewish assimilation, disenfranchisement, and extermination, including Mendelssohn, Heine, Kafka, Paul Celan, Nelly Sachs, Anne Frank, and others. Letter grading.

114. German Exile Culture in Los Angeles. (4) Lecture, three hours. Cultural and historical exploration of exile as site of creativity 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.

116. Special Topics in Modern Literature and Culture. (4) Lecture, three hours. Content varies with instructor and may include works by authors such as Thomas Mann, Rilke, Cesar Vallejo, and others. May be repeated for credit. Letter grading.

118. Feminist Issues in German Literature and Culture. (4) Lecture, three hours. Analysis of major issues in German feminism today (e.g., status, creative work, and reception of women writers in various periods such as Romanticism, Fascism, and/or division of Germany). Letter grading.

120. German Folklore. (4) Lecture, three hours. Survey of various folklore genres in cultural context, including legends, proverbs, and cultural enactments such as carnival. Letter grading.

122. Fairy Tales and the Fantastic. (5) Formerly numbered 132-123. Lecture, three hours; discussion, one hour. History and reception of folklore collections in Europe, with particular attention to ideology and influence of Grimms’ tales. Interpretation of selected tales and their transformations and appropriation in literature, film, advertising, and pedagogy. P/NP or letter grading.

130A-130B. Conversation and Composition on Contemporary German Culture I, II. (4-4) Lecture, three hours. Requisite: course 130A. Course 130A is requisite to 130B. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.


134. Advanced German Language through Cultural History and Current Affairs. (4) Lecture, three hours. Requisites: courses 130A, 130B. Advanced German language course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and criticism. Readings may include selections from Luther, Heine, Freud, and current authors. Students create their own interactive media presentations. Letter grading.

136. Theory and Practice of Translation. (4) Lecture, two hours; discussion, one hour. Course 136 is open to German majors with a grade of B or better. German/English and English/German translation of literary texts, popular press articles, and business documents, with attention to issues of style. Letter grading.

140A. Introduction to German Poetry. (4) Lecture, three hours. Close reading of representative examples of German lyric poetry from early as well as recent literary periods, including systematic consideration of poetic conventions and forms, diction, imagery, symbolism, and metrics. Letter grading.

140B. Introduction to German Drama. (4) Lecture, three hours. Analysis of selected dramatic genres (e.g., tragedy, comedy, one-act play, lyrical drama, lyrical theater, historical drama, etc.), including systematic review of dramatic forms, techniques, and theories. Texts selected from both contemporary and earlier periods. Letter grading.

140C. Introduction to German Narrative Prose. (4) Lecture, three hours. Analysis of narrative prose genres (e.g., short story, novella, fairy tales, etc.), including systematic review of narrative forms, techniques, and styles. Texts selected from both contemporary and earlier periods. Letter grading.

142. Introduction to 18th-Century Studies. (4) Lecture, three hours. Topics in Enlightenment literature, social history, and culture. Works by Goethe, Lessing, Schiller, and other German figures. Letter grading.

144. Introduction to 19th-Century Studies. (4) Lecture, three hours. Presentation of major texts from Romanticism to realism. Works by Kleist, Büchner, Heine, Fontane, and others. Letter grading.
146. Introduction to Modern Literature. (4) Lecture, three hours. Analysis of selected modern works written between 1890 and 1945, including texts by authors such as Thomas Mann, Kafka, Hesse, Brecht, and others. Letter grading.

148. Introduction to Contemporary Literature. (4) Lecture, three hours. Analysis and discussion of Ger- man, Austrian, Swiss, and ex-GDR literatures from 1945 to the present. Examination of writers such as Heinrich Böll, Günter Grass, Friedrich Dürrenmatt, Elfriede Jelinek, and Christa Wolf with a view to their specific political and cultural context. Letter grading.

150. Language and Linguistics. (4) Lecture, three hours. Requirements or corequisite: course 130A. Theories and methods of linguistics, with emphasis on structure of modern standard German, its phonology, morphology, syntax, semantics, and pragmatics. Other topics include diachronic, spatial, and social variation of German (i.e., its historical development, dialectology, and sociolinguistic dimensions). Letter grading.

152. Studies in German Literature before 1750. (4) Lecture, three hours. Analysis of selected works from 1550 to 1750, including works by Goethe, Schiller, and others. Letter grading.


162. Advanced Study of Contemporary Literature and Culture. (4) Lecture, three hours. Requirements: course 130A. Literature after 1945 in German-speaking countries, including issues such as national borders, ethnic identity, gender relations, and commercialization. Letter grading.

170. Current Topics in Germanic Linguistics. (4) Lecture, three hours. Requirements: course 130A. In-depth investigation of one topic in field of Germanic linguistics, such as phonetics and phonology, morphology and syntax, semantics and pragmatics, social and spatial variation (i.e., sociolinguistics and dialectology) of German, or history of German. Letter grading.

C172. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Requirements: course 130A. Introduction to study of earliest Germanic Languages / 319

201A. Bibliography, Research Methods, and Scholarship Writing. (4) Lecture, three hours. Introduction to current state of advanced research and analysis of literary and philological materials, with emphasis on bibliographies and such tools of research as research papers, periodicals, and archives. Letter grading.

201C. Theories of Literary Interpretation. (4) Lecture, three hours. Advanced analysis and discussion of various models of literary interpretation and methods of interpretation of some of the great German authors. Topics vary with instructor. Letter grading.

202A. Middle High German. (4) Lecture, three hours. Introduction to Middle High German language, with particular emphasis on the development of the language and its dialectal development. 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. Introduction to development of German as a modern literary language and to literary genres and cultural models. Letter grading.

204. Early Modern German Literature. (4) Lecture, three hours. Selected readings from 1500 to 1700, with introduction to development of German as a modern literary language and to literary genres and cultural models. Impact of Thirty Years’ War on German literary production and reception in German baroque. Letter grading.


207. Weimar Classicism. (4) Lecture, three hours. Reading and interpretation of major works of Weimar Classicism. May include problems in reception of classicism by later authors and cultural theorists. Letter grading.

208. Romanticism. (4) Lecture, three hours. Analysis of selected works and theories of German Romantics such as Friedrich Schlegel, Novalis, and Hoffmann, with emphasis on development of German romanticism and later periods. Letter grading.

209A. 19th-Century Lyrics. (4) Lecture, three hours. Discussion and analysis of lyric poetry from the classic/Romantic period through symbolism. Discussion of changes in genre, form, content, and social implication. Letter grading.


210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of the 20th century as they express war experience, crisis of consciousness, and cultural conflicts between wars, as well as innovations in narrative technique. Letter grading.

211. Postwar Literature. (4) Lecture, three hours. Study of major works by German-speaking authors writing since World War II. Examination of issues such as identity crises, national division, and political conflict. Gender, expectation, and social-political attitudes. Letter grading.

212. Contemporary Literature and Culture. (4) Lecture, three hours. Analysis of works by contemporary authors and their relation to literature and production and interpretation. Topics may include areas such as feminism, postcolonialism, and cultural studies. Letter grading.

213. Topics in Literature and Film. (4) Lecture, three hours. Focus on two topics from the contemporary world, such as film, literature, and social history. Letter grading.


232. Old High German. (4) Introduction to earliest phase of German literature, with extensive readings in major manuscripts of that period (750 to 1050). Emphasis on grammatical interpretation of these documents and identification of dialects used in their composition.


C238. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Requirements: course 150 or Linguistics 20. Problems in the structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, and cognitive linguistics. Discussion of formal linguistic approaches.

Concurrently scheduled with course C238. Graduate students meet as a group one additional hour each week and write research papers of greater length and depth. Letter grading.

251. Seminar: Germanic Linguistics. (4) Seminar, three hours. Current topics in synchronic or diachronical linguistics, such as specific issues in generative grammar, sociolinguistics and dialectology, or language contact. Letter grading.

252. Seminar: Historical and Comparative Germanic Linguistics. (4) Seminar, three hours. Topics selected from the field of historical Germanic phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of the Germanic languages, development of Germanic verbal and nominal morphology, comparison of Germanic syntax). 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 1775 and 1832, with special emphasis on work of Goethe and Schiller as it relates to philosophic texts such as Hegel’s Phänomenologie des Geistes or as it relates to historical events such as the French and American Revolutions. Letter grading.
258. Seminar: Romanticism. (4) Discussion of a specific author or topic from the Romantic period, possibly in conjunction with course 208. Critical review of secondary works.

259. Seminar: 19th-Century Literature. (4) Discussion of a specific author or topic of 19th-century literature, possibly in close connection with course 209A, 209B, or 209C; see department for I.D. number. Only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.


262. Seminar: Germanic Folklore. (4) Seminar, three hours. Detailed investigation of individual aspects of Germanic folklore, with emphasis on problems of theory and method in analysis of folkloric material. Letter grading.

263. Seminar: Literary Theory. (4) Seminar, three hours. Special focus on particular theoretical school or interpretive paradigm. Content varies with instructor. Letter grading.


M299. Research Resources for European Studies. (2) (Same as French M299, Information Studies M299, Italian M299, Slavic M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U 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, psycholinguistics, sociolinguistics, assessment techniques, use of multimedia in foreign language pedagogy, and design of syllabi for basic foreign language courses. S/U grading.

596. Directed Individual Study or Research. (4) To be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once; however, only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.

597. Preparation for M.A. Comprehensive Examinations or Ph.D. Qualifying Examinations. (4) To be arranged with faculty member who directs the study (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be taken only once before and only once after M.A. degree, except for Ph.D. candidates with a formal minor field of studies who may take course twice after M.A., once in the major and once in the minor in the 500 series. Only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.

598. Research for and Preparation of M.A. Thesis. (4 to 12) To be arranged with faculty member who directs the study (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). Only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.

C241. Viking Civilization and Literature. (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 C145. Graduate students do additional readings and write more extensive research papers.

C254A. Germanic and Scandinavian Mythology. (4) Seminar, three hours. Study of Northern myth and religion through close reading of Eddic texts and secondary sources.

C258. The Saga. (4) Seminar, three hours. The sagas are the largest extant medieval prose literature. Texts in English, with selections from the different types of Icelandic sagas. Consideration of the history and society that produced these narratives. Concurrently scheduled with course C145. Graduate students do additional readings and write more extensive research papers.

C272. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C145. Graduate students do additional readings and write more extensive research papers.

C259. Research for and Preparation of Ph.D. Dissertation. (4 to 12) To be arranged with faculty member who directs the study (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated. S/U grading.

Old Norse Studies

Lower Division Course

40. Heroic Journey in Northern Myth, Legend, and Epic. (4) (Comparison of the journeys of heroes. Readings in mythology, legend, folklore, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backgrounds to the texts. All readings in English.

Upper Division Courses

135. Vikings. (5) Lecture, three hours; discussion, one hour. Survey of history, anthropology, and archaeology of Viking Age society. Readings on medieval sagas as well as secondary material, focus on impact of Vikings on northern Europe, and considerations in which way European and Scandinavian societies evolved in response to Viking incursions. P/NP or letter grading.

139. The Saga. (4) Seminar, three hours. The sagas are the largest extant medieval prose literature. Texts in English, with selections from the different types of Icelandic sagas. Consideration of the history and society that produced these narratives. Concurrently scheduled with course C258.

140. Viking Civilization and Literature. (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 C241.

C245. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C272.

151. Elementary Old Norse. (4) Introduction to grammar and pronunciation of Old Norse. Selected readings from the sagas and Prose Edda.

152. Intermediate Old Norse. (4) Requisite: course 151. Continued grammar, pronunciation, and readings from the Eddas and sagas of Icelanders, Norwegians, and legendary heroes.


199. Special Studies in Old Norse. (2 or 4) Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course and who present such a course as a requisite.

Graduate Courses

221. Advanced Old Norse Prose. (4) Requisite: course 152. Readings of major saga texts. Also, secondary sources which bear on specific issues in Old Norse literature and culture or Scandinavian history.


195. Seminar in Old Norse. (4) Seminar, three hours. Study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once; however, only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.

196. Seminar in Old Norse. (4) Seminar, three hours. Special topics in Old Norse literature and culture. Concurrently scheduled with course 298. Graduate students do additional readings and write more extensive research papers.

198. Seminar in Old Norse. (4) Seminar, three hours. Special topics in Old Norse literature and culture. Concurrently scheduled with course 298. Graduate students do additional readings and write more extensive research papers.

199. Special Studies in Old Norse. (2 or 4) Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course and who present such a course as a requisite.

221. Advanced Old Norse Prose. (4) Requisite: course 152. Readings of major saga texts. Also, secondary sources which bear on specific issues in Old Norse literature and culture or Scandinavian history.


241. Viking Civilization and Literature. (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 C145. Graduate students do additional readings and write more extensive research papers.

254A. Germanic and Scandinavian Mythology. (4) Seminar, three hours. Study of Northern myth and religion through close reading of Eddic texts and secondary sources.

258. The Saga. (4) Seminar, three hours. The sagas are the largest extant medieval prose literature. Texts in English, with selections from the different types of Icelandic sagas. Consideration of the history and society that produced these narratives. Concurrently scheduled with course C145. Graduate students do additional readings and write more extensive research papers.

272. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C145. Graduate students do additional readings and write more extensive research papers.

274. Preparation for Ph.D. Qualifying Examinations. (4) To be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once; however, only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) To be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once; however, only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.
Adjunct Associate Professor
JoAnn Damron-Rodriguez, Ph.D. (Social Welfare)

Scope and Objectives
The explosive expansion of the older population in this country and the world — the "Age Revolution" — insures 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) introduces students to the field, (2) prepares them for advanced academic work, (3) lays the groundwork for careers involving a burgeoning aging population, (4) contributes to increased public awareness of issues regarding aging, and (5) helps students plan more effectively for their own futures as they and their families age.

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

Required Upper Division Courses (28 units): Gerontology M140 and six courses from M104C, M104D, M104E, M119O, M119X, M150, Community Health Sciences 90, Psychology M117J, 124G, 189, 193 (only 8 units may be applied toward the minor; fieldwork placements must be approved by the chair of the minor), Women's Studies 185 (only when the special topic is women, health, and aging).

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Gerontology
Upper Division Courses
M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Social Welfare M104C and Women's Studies M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of the aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in a multidisciplinary perspective utilizing faculty from a variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) (Same as Social Welfare M104D.) Examination of theoretical models and concepts of the 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 the elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) (Same as Social Welfare M104E.) Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around a key aspect of social gerontology. P/NP or letter grading.

M119O. Psychology of Aging. (4) (Same as Psychology M119O.) Requisite: Psychology 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvement, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.

M119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Psychology M119X.) Lecture, three hours. Designed for juniors/seniors. Biologic mechanisms of aging process and its terminal phase, death, have been increasingly studied in recent years. Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.

M140. Introduction to Study of Aging. (4) (Same as Psychology M140 and Social Welfare M140.) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging — biological, social, psychological, and humanistic. Introduction to information on the range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

M141. Women, Health, and Aging: Policy Issues. (4) (Same as Health Services CM141 and Women's Studies M141.) Lecture, three hours; discussion, one hour. Preparation: two upper division social sciences courses, two upper division biological sciences courses. Social and economic context of older women's aging, major physical and psychological changes older women experience, delivery of health services to this population, and policies that respond to their health needs. 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 the aged; caregiving relations and institutions; professions concerned with the aged and aging.

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HEALTH SERVICES
School of Public Health

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Thomas H. Rice, Ph.D., Vice Chair

Professors
Emily K. Abel, Ph.D.
Ronald M. Andersen, Ph.D. (Fred W. and Pamela K. Wasserstein Professor of Health Services)
Roshan Bastani, Ph.D.
Robert H. Brook, M.D., Sc.D.
E. Richard Brown, Ph.D.
William Comanor, Ph.D.
Jonathan E. Fielding, M.D., M.P.H.
Patricia A. Ganz, M.D.
David Hayes-Bautista, Ph.D.
Ronald Hays, Ph.D.
Gerald F. Kominski, Ph.D.
Charles E. Lewis, M.D., Sc.D.
Marvin Marcus, D.D.S.
Thomas H. Rice, Ph.D.
Stuart O. Schweitzer, Ph.D.
Martin Shaprio, M.D.

Paul R. Torrens, M.D., M.P.H.

Professors Emeriti
Lester Breslow, M.D., M.P.H.
William Shonick, Ph.D.

Associate Professors
William E. Cunningham, M.D., M.P.H.
Susan L. Etter, Ph.D.
Mark S. Litwin, M.D., M.P.H.
John Peabody, M.D., Ph.D., in Residence
Mark Schuster, M.D., Ph.D.
Antronette Yancey, M.D., Ph.D.

Assistant Professors
Jeff Luck, Ph.D., M.B.A., in Residence
Patricia Parkerton, Ph.D., in Residence
Ninez Ponce, Ph.D., in Residence

Lecturers
Bruce W. Bennett, Ph.D.
Alain Jourdier

Adjunct Professors
Ellen Alkon, M.D., M.P.H.
Michael Bobrow, A.I.A.
Arlene Fink, Ph.D.
Emmett Keeler, Ph.D.
Jacqueline B. Kosecoff, Ph.D.
Eric McLaughlin, Ph.D., M.B.A.
Thomas Priselak, M.P.H.
Ruth J. Roemer, J.D., Emerita
Iraq Tabibzadeh, M.D.

Adjunct Associate Professors
Barbara Berman, Ph.D.
Stuart Bowne, M.D.
Dana Goldman, Ph.D.
Raymond D. Goodman, M.D., M.P.H.
Nancy D. Harada, Ph.D.
Antonio Legorreta, Ph.D.
William McCarthy, Ph.D.
Anthony Schiff., J.D.
Richard Sinaiko, M.P.H.

Adjunct Assistant Professors
Pamela L. Davidson, Ph.D.
Melissa Farmer, Ph.D.
Brenda Freshman, Ph.D.
F.A. Hagigi, Dr.P.H., M.B.A., C.M.C.
Diana W. Hilmerton, Dr.P.H.
Naderer Pourat, Ph.D.
Jon Riddle, Ph.D.
Louis Rubino, Ph.D.
Amardeep Thind, M.D., Ph.D.
Elizabeth M. Yano, Ph.D.

Visiting Professors
Lori Pellicioci, Ph.D.
Gregory Stock, Ph.D.
Anthony Rodgers, M.P.H.
Carol Volpe, Ph.D.

Scope and Objectives
The field of health services examines the organization and financing of various 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 backgrounds are harmonized by their devotion to the analysis of problems in the financing and delivery of health services, with focus on populations rather than individual patients.

The Department of Health Services offers both practice-oriented and research-oriented graduate programs. The primary professional degree, the Master of Public Health (M.P.H.), in-
Graduate Degrees


Upper Division Courses


CM141. Women, Health, and Aging: Policy Issues. (4) Same as Gerontology M141 and Women's Studies M141.) Lecture, three hours; discussion, one hour. Preparation: two upper division social sciences courses, two upper division biological sciences courses, social and economic context of older women's aging, major physical and psychological changes older women experience, delivery of health services to this population, and policies that respond to their health needs. Concurrently scheduled with course CM241. Letter grading.

CM142. Women, Health, and Aging: Policy Issues. (4) Corequisite: course M141. Lecture, three hours; discussion, one hour. Preparation: two upper division social sciences courses, two upper division biological sciences courses, social and economic context of older women's aging, major physical and psychological changes older women experience, delivery of health services to this population, and policies that respond to their health needs. Concurrently scheduled with course CM241. Letter grading.


CM235. Law, Social Change, and Health Service Policy. (4) Same as Policy Studies M268.) Lecture, four hours; discussion, two hours. Preparation: intermedi- ate microeconomics. Requisite: Biostatistics 100A. Microeconomic aspects of the health care system, including health manpower substitution, choice of effi- cient modes of treatment, market efficiency, and competition. Letter grading.

CM237. Special Topics in Health Services Research Methodology. (4-4) Lecture, one hour; discussion, three hours. Requisites: Biostatistics 100A, 100B. In-depth consideration of problems in applica- tion of statistical and other quantitative methods in health services research. Critique of adequacy of study designs, appropriateness of analyses, and degree to which conclusions are supported by data. Letter grading.

CM237. Issues in Health Services Methodologies. (4) Lecture, four hours. Requisites: courses 237A, 237B. Designed for doctoral students. Intended to as- sist students in understanding the research process and its application in study of health services in the U.S. Introduction to issues related to reporting, dis- seminating, and documenting research findings. Let- ter grading.

239. Aging and Long-Term Care. (4) Lecture, four hours. Requisites: courses 100, 238, Community Health Sciences 270A, 270B. Long-term care of the chronically ill elderly examined from perspective of political and sociodemographic trends, including populations at risk, policy options, and alternative forms of care such as nursing homes, home care, and care by informal support systems. Letter grading.

240. Health Care Issues in International Perspective. (4) Lecture, four hours. Preparation: two health administration courses, two upper division social science courses. Analysis of crucial issues in health care; manpower policy, economic support, health facilities, patterns of health service delivery, regulation, planning, and other aspects of health care systems probed in developed and underdeveloped nations, and socialist countries. S/U or letter grading.

CM241. Women, Health, and Aging: Policy Issues. (4) (Formerly numbered M241.) (Same as Social Welfare M290D.) Lecture, three hours; discussion, one hour. Preparation: two upper division social science courses, two upper division biological sciences courses. Social and economic context of older women’s aging. Major psychological, emotional, and physical changes that older women experience, delivery of health services to this population, and policies that respond to their health needs. Concurrently scheduled with course CM141J. Letter grading.

M242. Determinants of Health. (4) (Same as Community Health Sciences M232.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and illness, both within and between individuals. The roles played by informal support systems. Letter grading.


249A-249Z. Special Topics in Health Services. (2 to 4 each) Hours to be arranged. Requisites for each offering announced in advance by department. Advanced seminars covering current issues and special topics in health policy, health financing, and organization and administration of health services. Sections offered to reflect topical interests and policies in preceding term. May be repeated for credit with topic change.

249D. Principles of Organization Leadership: Applications in Public Health and Welfare. (4) Lecture, three hours; discussion, two hours. Designed for graduate students. Examination of principles and models of organization leadership, including presentation by current leaders in the fields of health and welfare. Theories and empirical investigations of leadership qualities. Letter grading.

M249E. Advanced Topics in Health Economics. (4) (Same as Policy Studies M268.) Seminar, four hours. Requisites: courses 200A, 200B, M236. Advanced treatment of a number of topics in health economics, including mental health economics, pharmaceutical economics, and relationship between labor supply, welfare, and health. Letter grading.

249F. Quality Assessment and Assurance. (4) Seminar, four hours. Preparation: one health services or epidemiology course. Requisites: course 100, Biostatistics 100A, Epidemiology 100. Fundamental issues in quality measurement, survey methodology, and measurement of health status. S/U or letter grading.

249G. Decision Analysis and Cost-Effectiveness Analysis. (4) Seminar, three hours; discussion, four hours. Requisites: courses 200A, 200B. Doctoral level course focusing on techniques to assess a broad spectrum of medical technologies: therapeutic and diagnostic tests and procedures, clinical practice patterns, public health interventions, and pharmaceuticals. Demonstration of how decision analysis provides basic framework for conducting various economic evaluations. Letter grading.

249H. Current Research Issues. (2 to 4) Discussion, two hours. Designed for doctoral students. Review of articles in health services journals nominated as the best articles of the year. Analysis of theoretical and methodological issues as well as issues of practice and policy. Letter grading.

249I. Seminar Series. (2 to 4) Seminar, two hours. Designed for doctoral students. Presentation of proposed or ongoing research projects by faculty and students with discussion of criticism of methods and policy implications for health services issues. Letter or S/U grading.

M249J. Mental Health Services. (4) (Same as Psychiatry M251.) Lecture, three hours. Requisites: courses 200A, 200B. Designed for doctoral students. Survey of contemporary American delivery of health services to emotionally and mentally ill and retarded. Analysis of relationships of similar services, with historical background of their evolution and projections of their future prospects. Letter grading.


249L. Ethical Issues in Public Health. (4) (Same as Community Health Sciences M249L.) Lecture, four hours. Requisites: courses 200A, 200B. Case conferences, based on real-life experience, focus on ethical issues in health services organization and management, including ethical issues related to conflict of interest, quality of care, health insurance selection, choice of drugs, reproductive rights, AIDS, and resource allocation. Letter grading.

249M. Review of Current Health Services Management Literature. (2) Lecture, two hours. Designed to help students remain current on recent developments in health services management and to place these current developments in proper context of academic research and theory. Letter grading.

249N. Accessing, Analyzing, and Presenting Health Care Management Data. (2) Lecture, two hours. Designed to provide first-year M.P.H. health professional students with basic skills and acquisition and quantitative analysis of health care management data, as well as written and oral presentation of those results. Letter grading.

249Q. Tobacco and Public Policy. (4) Lecture, four hours. Information and analysis of principal issues in tobacco control. As administrators, researchers, and activists in field of tobacco control, professionals in all specialties of public health should be fully informed on strategies to combat worldwide tobacco epidemic. Letter grading.

250. Evolution of Health Professions in the 20th Century. (4) Lecture, two hours; discussion, two hours. During the 20th century there have been dramatic changes in health professions. Review of forces responsible for these changes and description of processes by which lay persons are educated/socialized into major subgroups of health professions. Review of major social forces external to health care system that affect its composition. Letter grading.

251. Process improvement and Information Systems in Health Care Organizations. (4) Lecture, four hours. Requisites: course 200, Biostatistics 100A. Introduction to concepts of health care quality measurement, process improvement, and information systems, as well as organizational aspects of implementing them. Letter grading.

M252. Medicare Reform. (4) (Same as Policy Studies M267.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and management skills learned earlier to be used to analyze problems with existing medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.

M253. Advanced Topics in Health Services Research: Access to Care. (4) (Same as Community Health Sciences M253.) Lecture, three hours. Prequisites: courses 253A, 253B, and 257C, or Community Health Sciences 210, 270A, and 270B. Doctoral seminar designed to explore health services research regarding access to health care and policies to enhance access. Topics include conceptual frameworks, measurement issues, study designs, analytic approaches, and substantive findings and trends in access and access-related policies. Letter grading.

254. Multidisciplinary Perspectives: Research Approaches to Managed Care. (4) Seminar, three hours. Requisites: courses 100, or 200A and 200B. Exploration of perspectives and methodologies of nine current disciplines that study health services delivery. Intermediate level research. Scholars in each discipline introduce their framework and discuss applications to current research in managed care. Letter grading.

M255. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Community Health Sciences M234.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction to graduate level at epidemiology, physiology, and environmental state of physical activity interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

260A-260B. World Health. (2-2) Lecture, two hours. Designed for graduate students. Overview of world health, with emphasis on health care outside the U.S. Key areas include burden of infectious diseases, health economics, and impact of health care policy on health care delivery. In Progress and letter grading.

265. Challenges in Clinical Health Services Research. (4) Lecture, four hours. Requisites: courses 200A, 200B. Designed to prepare students for challenges involved in conducting health services research on clinical topics and populations. Topics include formulating appropriate questions, identifying scientific mechanism and funding adequacy, identifying funding sources, writing grants, and publishing findings. S/U or letter grading.

M269. Health Care Policy and Finance. (4) (Same as Policy Studies M269.) Seminar, three hours; outside study, nine hours. Designed for graduate students. Review of major social forces external to health care system that affect its composition and description of processes by which lay persons are educated/socialized into major subgroups of health professions. Review of major social forces external to health care system that affect its composition. Letter grading.

270. Politics of Health Care. (4) (Same as Community Health Sciences M270.) Lecture, four hours; discussion, one hour. Requisites: courses 200A and 200B, or Community Health Sciences 210. 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; and other factors. Letter grading.

400. Field Studies in Health Services. (2 or 4) Lecture, two or four hours. Preparation: one or two years. Required of all graduating M.P.H. students. Continuation of summer placement in organizations for delivery, financing, and evaluation of health services. Preparation of consultation reports to be used as analytical problem or project from summer internship. Exposure to selected professional development issues. Letter grading.
401. Public Health Informatics. (4) Lecture, three hours. Preparation: general familiarity and understanding of biostatistical technology. Recommended requisite: course 251. Introduction to field of public health informatics and examination of impact of information technology on practice of public health. Entire program, from system conceptualization and design to project planning and development to system implementation and use. Letter grading.

M411. Issues in Cancer Prevention and Control. (4) (Same as Community Health Sciences M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of the cancer epidemic, cancer control goals for the nation, and interventions designed to encourage smoking cessation, prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.


430. New Developments in E-Health and Internet. (4) Lecture, four hours. Introduction of new technologies in health care e-commerce/Internet/new media area, with emphasis on general background, review of applications, and discussion of organizational and managerial issues dealing with successful use and implementation of technologies. S/U or letter grading.

431. Managerial Processes in Health Services Organizations. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 100, 234. Managerial skills and behaviors applied to components of organizations at several levels: individual, interpersonal, group, intergroup, system, and interorganization. Unique features of health services organizations are stressed as applications are presented. Letter grading.

432. Integrative Seminar: Health Services Management. (4) Seminar, four hours. Requisite: course 431. Residents and preceptors are responsible for presenting cases of actual administrative problems for solution by teams of students and faculty. S/U or letter grading.


440A. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Prerequisites: courses 200A, 200B, Biostatistics 100A, 100B. Principles of and systems related to organization and management of a health facility's health information system. Letter grading.

440B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Prerequisite: course 440A. Health and administrative research using clinical records. Principles of planning for routine and special studies. Individual investigation in methods of obtaining and processing data to meet needs of programs in institution and agency. Introduction to principles of medical auditing; analysis of medical and health services. S/U or letter grading.

441. Ambulatory Care in the U.S. (4) Seminar, three hours. Requisites: courses 132, 200A, 200B, Management 403. Introduction to organization and management concepts, problems, and issues in ambulatory health services, including financial management and information systems requirements. Letter grading.

442A. Managed Health Care: Quality and Cost. (4) Lecture, three hours. Overview of issues related to growth, management, and planning of managed health care systems. Review of role of HMOs and PPOs, as well as discussion of managed care as a solution. Letter grading.

443A. Biological and Social Bases of Prevention. (4) Lecture, two hours; discussion, two hours. Requisites: courses 100 (or 200A and 200B), Biostatistics 100A, 100B. Epidemiology 100. Designed for graduate students. Development, current status, and potential of preventive medicine in public health practice, focusing on risk indicator approach (exercise, alcohol, stress, etc.), with consideration of program settings, delivery problems, and issues. Letter grading.

444. Applied Methodology in Health Planning. (4) Lecture, three hours; fieldwork, four hours. Requisites: courses 200A, 200B. Demonstration of methodology of health planning by involving students in formulation of actual health plan for existing agency in Los Angeles area. Letter grading.

445. Health Care Marketing. (4) Lecture, three hours. Requisites: courses 200A, 200B, Biostatistics 100A, 100B. Survey course covering theory and applications of strategic planning and marketing concepts as they apply to health care organizations. Lectures and discussion of case studies for which students must prepare in advance, fieldwork group project. Letter grading.

447. State Health Policy Issues. (4) Seminar, three hours. Requisite: course 238. Focus on health policy development and implementation at state government level, with emphasis on financing, direct provision, and regulation of health care services, facilities, equipment technology, and manpower. Exploration of intergovernmental relationships. S/U or letter grading.


M448. Health Policy Issues for Dental Professionals. (2) (Same as Dentistry M422.) Lecture, two hours. Requisites: course 100, Biostatistics 100A, Epidemiology 100. Current public health policy issues in dental health, including cost, financing, role of government, and quality assurance. S/U grading.

M448D. Case Studies in Dental Practice. (2) (Same as Dentistry M433A.) Lecture, two hours. Provides students with practice methodology for evaluation of dental care settings. Didactic and field experience, providing foundation for evaluation of programs. S/U grading.

M449A-M449B. Child Health, Health Programs, and Policies. (4-4) (Same as Community Health Sciences M439A-M439B.) Lecture, three hours. Requisites or corequisites: course 100. Course M449A is requisite to M449B. Examination of history of child health policy trends and determinants, letter head, structure, and evolution of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.

450. Financial Theory of Health Services Organizations. (4) Lecture, four hours. Requisites: courses 200A, 200B. Study of health care financial management, including variables of cost of funds, availability of physicians to provide the necessary patients, efficiency of operations, and legal constraints. Letter grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward M.P.H. and M.S. 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 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirement. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward M.P.H. and M.S. 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 8) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

HISTORY
College of Letters and Science

UCLA
6265 Bunche Hall
Box 951473
Los Angeles, CA 90095-1473
(310) 825-4601
The History Department's 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). All courses must be taken for a letter grade.

Preparation for the Premajor

Required for the Premajor: Three courses, including two in Western civilization (History 1A, 1B, 1C) or two in world history (courses 20, 21, 22), and 99.

After completing the three courses with a minimum grade-point average of 2.0, students should petition to enter the major at the undergraduate counselor's office in 6248 Bunche Hall.

Required for the Major: Three additional lower division history courses.

Transfer Students

To be admitted as History majors, transfer students 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.

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 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 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 department offers graduate programs leading to the M.A. and Ph.D. and accepts qualified applicants for either or both degrees. There is also a concurrent master's program with the Graduate School of Education and Information Studies. Traditionally, the M.A. and Ph.D. 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

History B.A.

The History Department's 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). All courses must be taken for a letter grade.

Preparation for the Premajor and Major

Required for the Premajor: Three courses, including two in Western civilization (History 1A, 1B, 1C) or two in world history (courses 20, 21, 22), and 99.

After completing the three courses with a minimum grade-point average of 2.0, students should petition to enter the major at the undergraduate counselor's office in 6248 Bunche Hall.

Required for the Major: Three additional lower division history courses.

Transfer Students

To be admitted as History majors, transfer students 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 the undergraduate counselor before enrolling in any courses for the major.

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) History 197.

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
The College of Letters and Science allows 8 quarter units toward the B.A. for each Advanced Placement Test in History. The History Department applies this credit for continuing and transfer students (effective Fall Quarter 2002) to the Preparation for the Major as follows: AP European History fulfills History 1C; AP American History with a score of 4 or 5 allows 8 units of History 13A, 13B, 13C credit on the history preparation. The excess units may be applied only toward the degree.

Effective Fall Quarter 2002 for entering freshmen, no course credit is granted for any AP Test.

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, but students with a lower GPA may petition the honors committee 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 either an upper division seminar (History 197) and courses 199HB and 199HC or in courses 199HA, 199HB, and 199HC. Students must register their intention to undertake an honors thesis with the undergraduate affairs vice chair no later than the end of the term in which they take their first honors course (either course 197 or 199HA).

When students register for honors, they must provide the undergraduate affairs vice chair with a two-paragraph description of their thesis project, which must be approved in writing by the faculty member who agrees to act as their adviser. The undergraduate affairs vice chair must also approve the proposed project in writing.

The faculty adviser is primarily responsible for guiding the thesis work to its completion and assigns grades for the honors courses after the thesis is complete. The honors thesis should be 40 to 60 pages in length and be based on primary source material. Determination of the level of honors awarded (no honors, honors, or highest honors) is made by the undergraduate affairs vice chair, acting in conjunction with the honors committee, at the end of the term in which the thesis is completed.

Single Subject Credential in Social Science
For information on the single subject credential in social science, consult the Department of Education, 1009 Moore Hall, (310) 825-8328.

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.

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units and at least one lower division course in the history of science or medicine for a letter grade, and file a petition with the minor adviser in 6265 Bunche Hall.

Required Lower Division Courses (12 units): Three courses from History 2B, 2D, 3A through 3D, Philosophy 8.

Required Upper Division Courses (20 units): Five courses from Anthropology 182, 183, History 195A through 195E, any upper division Honors Collegium courses with history of science or history of medicine content, Neurobiology M168 (or Physiological Science M168), Philosophy 124.

Each year certain undergraduate seminars in the History 197 sequence are designated as applicable to the upper division minor requirements. Students may also petition to have other relevant courses, including those from other departments, applied toward the upper division requirements.

At least one upper division course, to be selected and approved in consultation with the undergraduate or faculty adviser, must involve writing a research or interpretative paper of significant length and intellectual content. Only one course applied toward the students' majors may also be applied toward this minor. Transfer credit for courses may be subject to departmental approval.

One course may be taken on a Passed/Not Passed basis; all other minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in History. A concurrent degree program (History M.A./Library and Information Science M.L.I.S.) is also offered.

History
Lower Division Courses
1A-1B-1C. Introduction to Western Civilization. (5-5-5) Lecture, three hours; discussion, two hours. Broad, historical study of major events in Western civilization, and institutions basic to Western civilization, and acquaint them, through reading and critical discussion, with representative contemporary documents and writings of enduring interest. P/NP or letter grading. 1A. Ancient Civilizations from Prehistory to Circa A.D. 843; 1B. Circa A.D. 843 to Circa 1715; 1C. Circa 1715 to the Present.

1AH-1BH-1CH. Introduction to Western Civilization (Honors). (5-5-5) Lecture, three hours; discussion, two hours. Honors section of courses 1A, 1B, 1C. P/NP or letter grading. 1AH. Ancient Civilizations from Prehistory to Circa A.D. 843 (Honors); 1BH. Circa A.D. 843 to Circa 1715 (Honors); 1CH. Circa 1715 to the Present (Honors).

2A. Power, Ethics, and Technological Change. (4) Lecture, three hours; discussion, two hours. Examination of historical and theoretical relationships between ethical behavior, corporate power, and technological change. Topics include engineering practice and business profits, gender and engineering cultures, product liability and consumer safety, and engineering and computer ethics. Historical case studies include Three Mile Island, Chernobyl, the DC-10, and Challenger Disaster. P/NP or letter grading.

2B. Social Knowledge and Social Power. (5) Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of those practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledge differs in agricultural, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

2C-2D. Religion, the Occult, and Science. (5-5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

2C. Mystics, Heretics, and Witches in Western Tradition, 1000 to 1600. (5) Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medieval and early modern Europe. Man the in which men and women sought to explain, order, and escape terrors of their lives by embracing transcendental religious experiences and dreaming of apocalypse and witchcraft. Examination of experiences in context of genesis of the state, birth of a new science, and economic and social change. P/NP or letter grading.

2D. Science, Magic, and Religion, 1600 to the Present. (5) Lecture, three hours; discussion, two hours. Science and religion as historical phenomena that have evolved over time. Examination of earlier mind-set before 1700 when into science fitted elements that came eventually to be seen as magical. How Western cosmologies became “disenchanted.” Magical tradition transformed into modern mysticisms. Political implications of these movements; science in totalitarian settings as well as “big science” during the Cold War. Discussion of anti-science and cult movements. P/NP or letter grading.
3A-3B. 3C. Introduction to History of Science. (5-5-5) Lecture, three hours; discussion, two hours. History majors may not apply these courses on general education requirements. P/NP or letter grading.

3A. Scientific Revolution. (5) Lecture, three hours; discussion, two hours. Survey of beginnings of physical science from the 17th century to the Enlightenment, with emphasis on the concept of natural law and its application to human society.

3B. History of Science from Newton to Darwin. (5) Lecture, three hours; discussion, two hours. Focus on the development of modern science from Newton to Darwin, with emphasis on the role of science in society.

3C. History of Modern Science, Relativity to DNA. (5) Lecture, three hours; discussion, two hours. Ranging from Newtonian physics to modern science, this course will demonstrate the historical development of modern science and its impact on society.

4. Introduction to History of Religions. (5) Lecture, three hours; discussion, two hours. Discussion of various systems, ideas, and fashions of thought that have dominated Western thought.

5A. Colonial Latin America. (5) Lecture, three hours; discussion, two hours. General introduction to Latin American history from 1500 to 1900, with emphasis on the role of ordinary people in Latin American society.

5B. Latin American Social History (Honors). (5) Lecture, three hours; discussion, two hours. Honors course parallel to course 8C. P/NP or letter grading.

5C. History of India. (5) Lecture, three hours; discussion, two hours. Survey of history of India, with emphasis on the role of religion, politics, and economy in shaping Indian society.

6A. History of the Near and Middle East. (5) Lecture, three hours; discussion, two hours. Focus on the history of the Near and Middle East from ancient times to the present.

6B. History of Modern Science, Relativity to DNA. (5) Lecture, three hours; discussion, two hours. Survey of the development of modern science from Newton to Einstein, with emphasis on the role of science in society.

7. Themes in History of Medicine. (5) Lecture, three hours; discussion, two hours. Examination of the role of medicine in society from the Middle Ages to the present.

8A. 10A-10B. History of Africa. (5-5) Lecture, three hours; discussion, two hours. Honors course parallel to course 3C. P/NP or letter grading.

8B. Modern Europe; Britain; History of Religions; Jewish History; Japan; History of Religions; Asian Civilizations; India; Chinese institutions; and modes of thought from antiquity to 1600. Focus on the role of social, political, intellectual, and economic aspects of early and middle empires. 11B. 1000 to 1900. Survey of later history of China — evolution of characteristic Chinese institutions and modes of thought from 1000 to 1950. Focus on the role of social, political, intellectual, and economic aspects of early and modern China in contemporary era.

11A-11B. History of China (Honors). (5-5) Lecture, three hours; discussion, two hours. Honors course parallel to course 8B. P/NP or letter grading.

11A-B. History of China (Honors). (5-5) Lecture, three hours; discussion, two hours. Honors course parallel to course 11A. P/NP or letter grading.

11B. 1000 to 1900 (Honors). 11BH. 1000 to 1950 (Honors).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>History and Historians. (4) Lecture - Designed for juniors/seniors. Survey of historical sources and intellectual processes by which history is written, results of these processes, and sources and development of history. Attention also to representative historians. P/NP or letter grading.</td>
</tr>
<tr>
<td>101</td>
<td>Topics in World History. (4) Lecture - Designed for juniors/seniors. Examination of specific historical themes from world historical perspective. May be repeated for credit. P/NP or letter grading.</td>
</tr>
<tr>
<td>102</td>
<td>Explorations in Psychoanalysis and History. (4) Designed for juniors. Art of psychological and historical interpretation; assessment of recent writings in the field of psychohistory.</td>
</tr>
<tr>
<td>103A-103B</td>
<td>Historical Archaeology. (4-4) (Same as Anthropology M115A-M115B.) Lecture, three hours. Designed for juniors/seniors. P/NP or letter grading.</td>
</tr>
<tr>
<td>104</td>
<td>Ancient Egyptian Civilization. (4-4) (Same as Ancient Near East M104A-M104B.) Lecture, three hours; discussion, one hour. Course M104A is not required to M104B. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading.</td>
</tr>
<tr>
<td>105</td>
<td>History of Ancient Mesopotamia and Syria. (4-4) (Same as Ancient East M105.) Lecture, three hours. Designed for juniors/seniors. Political and cultural development of “Fertile Crescent,” including Palestine, from Late Uruk to neo-Babylonian period.</td>
</tr>
<tr>
<td>106A-106B-106C</td>
<td>Survey of the Middle East from 500 to the Present. (4-4-4) Designed for juniors/seniors. Background and circumstances of rise of Islam, creation of the Islamic Empire, and its development. Rise of Dynastic States and the Modern Nation States, Social, intellectual, political, and economic development. 106A, 500 to 1300; 106B, 1300 to 1700; 106C, 1700 to the Present.</td>
</tr>
<tr>
<td>108</td>
<td>History of Islamic Iberia. (4) (Formerly numbered 108C.) Lecture. Designed for juniors/seniors. Survey of Islamic, economic, artistic, and literary history of an Islamic culture in Western Europe, P/NP or letter grading.</td>
</tr>
<tr>
<td>109</td>
<td>History of North Africa from Islamic Conquest. (4) (Formerly numbered 109A.) Lecture. Designed for juniors/seniors. Survey of political, social, economic, and religious history of the Maghrib (Maghribi) from Muslim conquest in the 7th and 8th centuries C.E. until 1578. P/NP or letter grading.</td>
</tr>
<tr>
<td>112A-112B-112C</td>
<td>Armenian History. (4-4-4) Designed for juniors/seniors. Armenia in Ancient and Medieval Times, 2nd Millennium B.C. to A.D. 11th Century; 112B, Armenia from Cilician Kingdom through the late 16th and early 17th centuries; 112C, Armenia in Modern and Contemporary Times, 19th and 20th Centuries. Armenian question and genocide, national republic, Soviet Armenia, and the dispersion.</td>
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<tr>
<td>1119M</td>
<td>The Christian Church, 100 to 1517. (4) Lecture. Designed for juniors/seniors. Constitutional, political, and economic history of the Church: Christianization of Roman Empire; kingdoms; governance and institutions of the Church; relations between Church and monarchy; the high tide of papalism; crisis of authority on eve of the Reformation. P/NP or letter grading.</td>
</tr>
<tr>
<td>120M</td>
<td>The Christian Religion, 100 to 1350. (4) Lecture. Designed for juniors/seniors. Reconsideration of the religious experience of Christians — conversion, doctrine, belief, heresy, spirituality, worship, liturgy, and art, Religious life of lay Christians, as well as that of the Church’s institutional, intellectual, and spiritual leaders. P/NP or letter grading.</td>
</tr>
<tr>
<td>121A-121B</td>
<td>Medieval Europe. (4-4) Designed for juniors/seniors. Basic introduction to Western Europe from the early Middle Ages through the Renaissance. P/NP or letter grading.</td>
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<tr>
<td>121C</td>
<td>Medieval Civilization: Mediterranean Heartlands. (4) Designed for juniors/seniors. Survey of Western Mediterranean Europe, social/economic/cultural within a political framework, including its relation with other cultures.</td>
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<tr>
<td>121D</td>
<td>Topics in Medieval History. (4) Lecture. Designed for juniors/seniors. Special topics in history of Middle Ages, including religion in society, justice and law, politics of war and diplomacy, economic upheaval and renewal, and cultural representations. P/NP or letter grading.</td>
</tr>
<tr>
<td>124A-124B</td>
<td>East-Central Europe. (4-4) Designed for juniors/seniors. The Long 19th Century, 1780 to 1914. Analysis of characteristics of peripheral 19th-century capitalism, effort to modernize and catch up, and factors and consequences of its partial failure in the economy, politics, and culture. 124B. The Short 20th Century, 1918 to 1990. Analysis and interpretation of stormy history of crisis zone of Europe where wars, revolutions, and different types of extremism led to a historical detour: 70 years of departure from Western values and at last an effort to return to them.</td>
</tr>
<tr>
<td>124D</td>
<td>Film and History: Central and Eastern Europe. (4) Designed for juniors/seniors. Postwar history of central and eastern Europe (1945 to 1989), using eight Czech, Polish, and Hungarian films to explore life under state socialist “modernization dictatorship.” P/NP or letter grading.</td>
</tr>
</tbody>
</table>

125A. Renaissance and Reformation, 1450 to 1660. (4) Lecture. Designed for juniors/seniors. Reorganization of power, new forms of representation, and discourses about rule and obedience in Europe from the mid-15th through 16th century; popular culture; peasant society; refashioning of religion and power; localization. P/NP or letter grading.

125B. Baroque Culture and Absolutist Politics, 1600 to 1715. (4) Lecture. Designed for juniors/seniors. Changing nature of state and social domination; redeploymen of military violence; strategies of population discipline; absolutism and baroque culture; new forms of bureaucratic intervention; representation of the family, sexuality, and the body; witch persecutions. P/NP or letter grading.


125E. Era of Total War, 1914 to 1945. (4) Lecture. Designed for juniors/seniors. World War I, interwar period, and World War II. Social, cultural, political, and economic aspects, with focus on strain between model of parliamentary democracy and dynamics of mass politics (e.g., Bolshevik Revolution, Italian Fascism, national socialism, and Spanish Civil War). P/NP or letter grading.

125F. World War II and Its Aftermath, 1939 to the Present. (4) Lecture. Designed for juniors/seniors. World War II, origins and persistence of the Cold War, reconstruction in the West, de-Stalinization, decolonization, crisis of the welfare state, background to and course of the 1989 revolutions, current political configuration. P/NP or letter grading.


129A. Baroque and Enlightenment Germany. (4) Designed for juniors/seniors. Development of state institutions, culture, and society in Central Europe from end of Thirty Years' War to end of Napoleonic Wars. Consideration of absolutism as a political system, and baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.


129C. 20th-Century Germany. (4) Designed for juniors/seniors. Transitions that Germany has faced during this century; two world wars, shift from monarchy to republic to national socialism to a "divided nation," and finally "reunification." Consideration of political, social, economic, and cultural spheres. P/NP or letter grading.

129D. History of the Low Countries. (4) Lecture. Designed for juniors/seniors. Examination of aspects of Dutch (and on occasion Belgian) history from medieval period to period after World War II, with emphasis on political and cultural history. Topics include Middle Ages, Dutch Republic in the 17th and 18th centuries, Low Countries from 1830 to 1918, Netherlands and Belgium in context of Europe after 1945. P/NP or letter grading.

130. Europe in the Age of Revolution, Circa 1775 to 1815. (4) Lecture. Designed for juniors/seniors. Period from revolt of the Thirteen Colonies to French Revolution of 1789, and Napoleonic regime, viewing social and political conflict through the revolu-tionary movements in a comparative and transnational perspective. P/NP or letter grading.


131B. Imperial Russia from Peter the Great to Nicho-las II. (4) Lecture. Designed for juniors/seniors. West-ernization of state and society; centralization at home and expansion abroad; peasant problem; beginnings of industrialization; movements of political and social protest; non-Russian peoples; political reforms and social changes; Revolution of 1905; Russia in World War I; fall of the tsarist regime; P/NC or letter grading.

131C. Revolutionary Russia and the Soviet Union. (4) Lecture. Designed for juniors/seniors. The Revolutions of 1917, Civil War, consolidation of the Bolshevik Regime; succession crisis and ascension of Stalin, collectivization and famine, foreign policy and World War II; death of Stalin, de-Stalinization, developments since; stagnation or stability? P/NP or letter grading.

131D. Culture and Society in Imperial Russia. (4) Lecture. Designed for juniors/seniors. Recommended preparation: course 131B or Russian 89A or 119. Thematic examination of culture and society in Russia during era of state-sponsored Westemization (1689 to 1917). Topics include nobility, peasantry, and village life from serfdom to postemancipation era, urban society, working-class life and thought, women, clergy, religion, popular culture, accommodation, and resistance. P/NP or letter grading.

132A-132B-132C. History of Italy. (4-4-4) Lecture. Designed for juniors/seniors. P/NP or letter grading. 132A. 1350 to 1559. Most important social, economic, political, and cultural developments in history of Italy during later Middle Ages and Renaissance. 132B. 1559 to 1848. Counter-Reformation and absolutism, Enlightenment reforms, revolutionary era, and first phase of the Risorgimento. 132C. 1848 to the Present. Political, economic, social, diplomatic, and ideological developments.

132BL. Italian Literature in Historical Context, 1559 to 1848. (1) Seminar. Designed for juniors/se-niors and to be taken in conjunction with course 132B. Reading of texts in Italian selected from works that relate directly to material covered in course 132B. P/NP or letter grading.

133A-133B. Social History of Spain and Portugal. (4-4) Designed for juniors/seniors. 133A. Age of Sil-ver in Spain and Portugal, 1479 to 1789. Development of popular history in the Iberian Peninsula. Emphasis on peasants and urban history, gold routes, slave trade, history of women, and development of different types of collective violence. 133B. Rebellion and Revolution in Modern Spain and Portugal, 1789 to the Present. Spain's position in Europe and its po-tentialities for social change discussed through inves-tigation of urban history, state structure, history of women, problems of slow industrial devel-opment, imperialism, anarchism, and labor history.

134A. Southeastern Europe, 500 to 1500. (4) De-signed for juniors/seniors. Political, economic, and cultural survey of the independent Balkan states in the Middle Ages.

134B. Southeastern Europe, 1500 to 1918. (4) De-signed for juniors/seniors. The Balkans under Otto-man rule, movements of national liberation, and for-mation of nation states.


136. Topics in European History. (4) Designed for juniors/seniors. Integrated introduction to important aspects of European history, with emphasis on a specif-c topic within a broad framework. May be repeated for credit. P/NP or letter grading.

137A-137B. History of Women in Europe. (4-4) Lecture. Designed for juniors/seniors. History of so-cial, political, and cultural roles of women in Western Europe from early Middle Ages to the present. P/NP or letter grading. 137A. 800 to 1715; 137B. 1715 to the Present.

138A-138B. Topics in Medieval English History. (4-4) Designed for juniors/seniors. Topics include the village community and economy, family and landhold-ing, Church and society, war, politics, and feudal rela-tions.
139B-139C. Economic History of Europe. (4-4)
Designed for juniors/seniors. P/NP or letter grading.
139B. 1700 to 1900. Emergence of a “world economy”; first Industrial Revolution; revo-

140A. Exploration and Conquest, 1400 to 1700. (4) Lecture. Designed for juniors/seniors. First phase of European expansion in the Americas, Africa, and Eurasia. Analysis of motives and methods of expan-
140B. Colonialism, Slavery, and Revolution, 1700 to 1870. (4) Lecture. Designed for juniors/seniors. Ori-
140C. Empire and American Indian. (4) Lecture. Designed for juniors/seniors. Complex interrelations-
141A-141B. History of Britain. (4-4-4) De-
141A. Tudor-Stuart Times, 1485 to 1715. Political, socioeco-
141B. Making of Modern Britain, 1715 to 1867. Political, economic, social, and cultural history of Brit-
142A. British Empire, 1860 to 1914. (4) Designed for jun-
142B. Revolution, 1760 to 1800. (4) Designed for juniors/seniors. Inquiry into origins and conse-
145B. Revolutionary America, 1760 to 1800. (4) Designed for juniors/seniors. Emphasis on alteration of social, economic, and cultural conditions after the French Revolution; consequences of the Revolution in France, the rise of nationalism, and the emergence of a new global order.
152A. Diplomatic History of the U.S. (Honors). (4) Lecture; three hours; discussion, one hour. De-
152B. Diplomatic History of the U.S. (Honors). (4) Lecture; three hours; discussion, one hour. De-
156A. Diplomatic History of the United States. (4) Lecture. Designed for juniors/seniors. Historical analysis of U.S. foreign policy, from the early Republic to the present, focusing on key developments and significant foreign policy decisions.
158A. Diplomatic History of the United States. (4) Lecture. Designed for juniors/seniors. Detailed study of U.S. foreign policy from the early Republic to the present, focusing on key historical developments and significant foreign policy decisions.
159A. Diplomatic History of the United States. (4) Lecture. Designed for juniors/seniors. Historical analysis of U.S. foreign policy, from the early Republic to the present, focusing on key developments and significant foreign policy decisions.
151. American West. (4) Designed for juniors/se-
    niors. Study of the West as frontier and as region, in
    transit from the Atlantic seaboard to the Pacific, from
    the 17th century to the present.

162. American West. (4) Designed for seniors. Study of the West as fron-
    tier and as region, in transit from the Atlantic seaboard to the Pacific, from
    the 17th century to the present.

163. History of California. (4) Designed for juniors/ 
    seniors. Economic, social, intellectual, and political development of California from earliest times to the present. Emphasis on the historical
    development of the state within the context of the nation as a whole.

164. History of Los Angeles. (4) Designed for 
    juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to the present. Emphasis on the development of Los Angeles as a major urban center in Southern
    California in course 160B.

165A. Early Latin America. (4) Designed for juniors/ 
    seniors. Advanced survey of Latin American history from conquest to independence, with emphasis on society, culture, and ethnic aspects.

165C. Indians of Colonial Mexico. (4) Designed for 
    juniors/seniors. Survey of social and cultural history of the Indians of Mexico, especially central Mexico, from time of the European conquest until Mexican inde-
    pendence, emphasizing an internal view of Indian groups and policies on basis of records produced by the Spanish. Emphasis on the role of the Indians themselves.

166. Latin America in the 19th Century. (4) De-
    signed for juniors/seniors. Intensive analysis of eco-
    nomic, social, and political problems of Latin Ameri-
    can nations from their independence to around 1910.

167A-167D. Latin America in the 20th Century. (4 
    each) Designed for juniors/seniors. Experiments in 
    national development analyzed to relate the timing of social changes to economic, political, cultural, and geographic context. Successive country case studies each focus on world pressures and interplay of over-
    lapping themes: struggle between centralized and de-
    centralized government agencies (emphasized in course 167A), role of personalist leaders (empha-
    sized in course 167B), definition of the national polity (emphasized in course 167C), and “rightist” and “left-
    ist” models of development (emphasized in course 167D). Mexico is treated in course 171. Within each 
    course, countries are studied according to the chrono-
    logical contribution to the theme emphasized.

167A. Haiti, Uruguay, Costa Rica, Cuba, Chile; 167B. 
    Bolivia, Dominican Republic, Argentina, Paraguay, 
    Venezuela; 167C. Panama, Colombia, Ecuador, Honor-
    duras, El Salvador; 167D. Brazil, Guatemala, Peru, 
    Nicaragua.

168. History of Latin American International Rela-
    tions. (4) Designed for juniors/seniors. Emphasis on 
    developing interests of Latin American nations in their relationship with one another and with other areas of the
    world, beginning with 19th-century independence.

169. Latin American Elite Lore. (4) Required: course 
    167A, 167B, 167C, or 171. Designed for juniors/se-
    niors. Elite lore (defined as oral or noninstitutionalized knowledge involving leaders’ conceptual and percep-
    tual life history views) in contrast to folklore (followers’ traditional or popular views). Elite lore genres include oral history, literature, and cinema.

170. Latin American Cultural History. (4) De-
    signed for juniors/seniors. Intellectual, artistic, and 
    folk expressions of the Latin American spirit and char-
    acter examined in readings and lectures, with emphasis on unique contribution of Latin Americans to develop-
    self-interpreted, Music, films, and slides supple-
    ment discussion.

170B. Classic Travel Accounts of Latin America since 
    1735. (4) Designed for juniors/seniors. Reconnec-
    tion for prospective researchers before they se-
    lect their region of study. Introduction to “enlightened travel” accounts as they reveal cultural change for wide-ranging spatial and temporal vantages. Comparison of published works to photographic se-
    ries to analyze the great variety of geographic re-
    gions, peoples, environments, occupations, food, a-
    rchitecture, and transportation of the 20 countries of the area.

170C. Issues in Latin America History. (4) De-
    signed for juniors/seniors. Examination of major is-
    sues in history of Latin America. P/NP or letter grad-
    ing.

171. Mexican Revolution since 1910. (4) Designed 
    for juniors/seniors. Examination of concept of “perma-
    nent crisis” to describe and explain the structure of “revolutionary politics” and the development of democratic institutions. Analysis of unresolved colonial and 19th-century problems and crises that have influenced modern-day Mexico, if in modified form.

172. History of Argentina. (4) Designed for juniors/ 
    seniors. History of economic, social, and cultural developments that have shaped Argentina from colonial times to the present. Emphasis on 19th- and 20th-century development of an agro-export economy and 20th-
    century formation of a mass society.

173. Modern Brazil. (4) Designed for juniors/se-
    niors. Selected topics in political, economic, social, 
    and cultural development of Brazil, with emphasis on modernization and the struggle for change, 1850 to 
    the present. Discussions, films, slides, and guest speakers supplement and complement lectures.

174. Brazil and Atlantic World, 1500 to 1822. (4) 
    Lecture. Designed for juniors/seniors. Exploration of developments of Indians through urban milieus.

175A-175Z. Topics in African History, (4 each) 
    Lecture. Preparation: one prior course in African his-
    tory at UCLA. Designed for juniors/seniors. Examina-
    tion of specific topics which have a continental appli-
    cation rather than proceeding on a strictly chronologi-
    cal or regional basis. P/NP or letter grading.

175A. Prehistoric Africa — Technological and Cul-
    tural Traditions. (4) (Same as Anthropology M119.) 
    Lecture. Preparation: one prior course in African his-
    tory at UCLA. Designed for juniors/seniors. Survey of 
    nondocumentary sources of early African history, with emphasis on archaeological evidence from origins of human in 1600. P/NP or letter grading.

175B. Africa and the Slave Trade. (4) Lecture, Prepa-
    ration: one prior course in African history at UCLA. 
    Designed for juniors/seniors. Social, economic, politi-
    cal, and cultural impact of the slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and the African di-
    mension.

175C. Africa in the Age of Imperialism. (4) Lecture. 
    Preparation: one prior course in African history at UC-
    LA. Designed for juniors/seniors. Topics include pene-
    tration of precapitalist social formations by capital, emergent of classes, nature of the colonial and postcolonial state, and struggle for national liberation in a global context. P/NP or letter grading.

175D. Africa and the Diaspora in Global and Compar-
    ative Perspective. (4) Lecture, Preparation: one prior 
    course in African history at UCLA. Designed for jun-
    iors/seniors. Forced migration of Africans through overseas slave trade was formative event of the mod-
    ern world. Exploration of that experience and its lasting consequences by placing it in its global context — Afri-
    can, American, European, Islamic, and Asian, P/NP or letter grading.

175E. Africa from 1945 to the Present. (4) Lecture. 
    Preparation: one prior course in African history at UC-
    LA. Designed for juniors/seniors. History of Africa south of the Sahara from end of World War II to the present. Last phases of colonial rule in Africa, African nationalism, Pan-Africanism, liberation movements, and achievement of independence. Political, social, and economic change in the colonies and in the inde-
    pendent states of Africa. Neocolonialism, experi-
    ments in international relations. Africa and the South Af-
    rican, ideological conflict in contemporary Africa, and Africa in world affairs since 1957. P/NP or letter grad-
    ing.
176A-176B. History of West Africa. (4-4) Designed for juniors/seniors. 176A. West Africa from Earliest Times to 1815; 176B. West Africa since 1815.

176C. Social and Economic History of West Africa since 1600. (4) Designed for juniors/seniors. Analysis of main currents of West African social, cultural, and economic history since the fall of the Songhai Empire, with emphasis on the family, religious values, education, urbanization, migrations, arts, slavery, and the slave trade. Roles of economic forces and institutions in promoting or inhibiting economic change in West Africa; ethnological and sociopolitical integration; colonial economic systems and efforts at economic planning and development since the 1950s.


178A. History of East Africa. (4) Lecture. Designed for juniors/seniors. Survey of cultural diversity of east Africa from earliest times to growth of complex societies, its place within wider Indian Ocean system, and colonial origins of independence and postcolonial challenges. P/NP or letter grading.


179A-179B. History of Southern Africa. (4-4) Designed for juniors/seniors. Attention to social and economic as well as political aspects. P/NP or letter grading. 179A. From the Origins to 1870. Origins of the South African peoples and their interactions to 1870. 179B. Since 1870. Interactions between inhabitants of southern Africa since 1870.


188B-188C. History of British India I, II. (4-4) Designed for juniors/seniors. Introduction to civilization and institutions of India from earliest times to founding of the South Asian subcontinent from earliest times to founding of the Mughal Empire. 188B-188C. History of British India I, II. (4-4) Designed for juniors/seniors. Introduction to civilization and institutions of India from earliest times to founding of the South Asian subcontinent from earliest times to founding of the Mughal Empire. 188B. Early Modern, 1600 to 1868; 187C. Modern, 1868 to the Present.

188E. Bhakti Traditions in Indian History. (4) Lecture. Designed for juniors/seniors. Focus on bhakti traditions in India as part of “Great Tradition” of classical Hinduism; involvement of women; emergence of Sikhs. P/NP or letter grading.

188A. Early History of India. (4) Designed for juniors/seniors. Introduction to civilization and institutions of India from earliest times to founding of the South Asian subcontinent from earliest times to founding of the Mughal Empire.

189C. Special Topics in Contemporary Indian History. (4) Designed for juniors/seniors. Treatment of major issues in history of contemporary India. P/NP or letter grading.

190A-190B. History of Southeast Asia. (4-4) Designed for juniors/seniors. 190A. Early History of Southeast Asia. Political and cultural history of the peoples of Southeast Asia to about 1815. 190B. Southeast Asia since 1815. History of modern Southeast Asia, with emphasis on expansion of European influence in political and economic spheres, growth of nationalism, and process of decolonization.

190C. Philippine History. (4) Designed for juniors/seniors. Social, cultural, and political history of Philippine societies from the Spanish conquest through independence. Emphasis on questions of identity under colonialism, understanding the Revolutions of 1896 and 1898, and politics of Philippine nationalist discourse. Readings include introduction to major issues in Philippine historiography and literature. P/NP or letter grading.

190D. Vietnam: Past and Present. (4) Designed for juniors/seniors. Survey of history and culture of Vietnam from about 700 B.C. to the present, including political, economic, and cultural development as well as international relations in post-1954 period. P/NP or letter grading.


190Y. National Histories of Southeast Asia. (4) Lecture. 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.

190Z. Comparative Histories of Southeast Asia. (4) Lecture. 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.

M191A. Ancient Jewish History from Patriarchs to Rabbis. (4) (Same as Jewish Studies M191A.) Lecture. Designed for juniors/seniors. Survey of Jewish history beginning with enormously repercussive expulsion of Jews from Spain in 1492, followed by transformations in Jewish identity and identity over five centuries in Europe and Middle East, and concluding with nationalism. P/NP or letter grading.

M191B. Between Crescent and Cross: Jewish Middle Ages. (4) (Same as Jewish Studies M191B.) Lecture. 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.

M191C. Jewish History from Spanish Expulsion to 1818. (4) (Same as Jewish Studies M191C.) Lecture. Designed for juniors/seniors. Survey of early modern Jewish history beginning with enormously repercussive expulsion of Jews from Spain in 1492, followed by transformations in Jewish identity and identity over five centuries in Europe and Middle East, and concluding with nationalism. P/NP or letter grading.


194. Jesus of Nazareth in Historical Research. (4) Recommended preparation: course 194A. Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, students are led into firsthand knowledge (in translation) of various multilayered sources for reconstruction of the life, teaching, and initial impact of Jesus of Nazareth in his social, economic, and political context of postwar Jewish community. P/N or letter grading.

195A. History of Medicine: Historic Roots of Healing Arts. (4) Not the same as course 195A prior to Spring Quarter 2001.) Lecture. Designed for juniors/ seniors. Introduces theories, practices, goals, and myths of Western healing professions from time of ancient Greeks to the Renaissance. Topics range from Hippocrates, Galen, and scholars at Alexandria to healing practices of medieval Muslim and Jewish doctors, rise of healing professions, medical faculties, nursing orders, and hospitals. P/N or letter grading.


195C. Historical Perspectives on Gender and Science. (4) Lecture. Designed for juniors/seniors. His- torical 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 investi- gations of women and the feminine. P/N or letter grading.


195E. Topics in History of Science. (4) Lecture. Designed for juniors/seniors. Topics may include sci- ence and colonialism, science and religion, environ- mental history, science in Enlightenment, develop- ment of theory of evolution, science and public policy, public nature of science. P/N or letter grading.

196. Field Research Methods. (4) Lecture. Three hours. Seminar, four hours. (Formerly numbered 197A-197O.) Seminar, three hours. May be repeated for credit.

197A-197U. Topics in History. (4 each) Seminar, three hours. May be repeated for credit.

197M. European Jewry from 1881 to the Present. (4) (Same as Jewish Studies M192A-M192B.) Designed for juniors/seniors. Experience of Jews in America, both histori- cal and contemporary. P/N or letter grading.

197S. History of State of Israel from 1948 to the Present. (4) (Same as Jewish Studies M191S.) Lecture. Designed for juniors/seniors. Examination of his- tory of State of Israel from 1948 to the present. P/N or letter grading.


198. Religions of South and Southeast Asia. (4) (Formerly numbered 198A or 198B.) Lecture. Designed for juniors/seniors. Main polytheistic systems of ancient Near East, with empha- nus on Mesopotamia and Syria and with reference to religion of ancient Israel: varying concepts of divini- ty, hierarchies of gods, prayer and cult, magic, wis- dom, and moral conduct. P/N or letter grading.

199. Special Topics in History of Religions. (4) Lecture. Designed for juniors/seniors. Topics announced in Schedule of Classes and include ancient Germanic cults, Renaissance mysticism; mystics of the low countries; Protestant religion in a secular age.


19C. History of State of Israel from 1948 to the Present. (4) (Same as Jewish Studies M191S.) Lecture. Designed for juniors/seniors. Examination of his- tory of State of Israel from 1948 to the present. P/N or letter grading.

19D. Religions of South and Southeast Asia. (4) (Formerly numbered 198A or 198B.) Lecture. Designed for juniors/seniors. Main polytheistic systems of ancient Near East, with empha- nus on Mesopotamia and Syria and with reference to religion of ancient Israel: varying concepts of divini- ty, hierarchies of gods, prayer and cult, magic, wis- dom, and moral conduct. P/N or letter grading.

19E. Special Topics in History of Religions. (4) Designed for juniors/seniors. Topics announced in Schedule of Classes and include ancient Germanic cults, Renaissance mysticism; mystics of the low countries; Protestant religion in a secular age.

19F. History of Early Christians. (4) Designed for juniors/seniors. Christian movement from its origins to circa 160 C.E., stressing its continuity/discontinuity with Judaism. Various responses to Jesus of Nazaa- reth, writings produced during this period, move- ment’s encounters with its religious, social, and polit- ical world, and methods of research.


19H. Directed Study for Honors. (4) Tutorial, three hours. Student meetings with honors advisor to de- fine research and preparation of honors project. Extensive reading and research in field of proposed honors thesis. Letter grading.

19HB. Directed Study for Honors. (4) Tutorial, three hours. Requisite: course 199B or 199HA. Inde- pendent study and research on honors project under supervision of honors advisor. In Progress grading (credit to be given only on completion of course 199HC).

19HC. Directed Study for Honors. (4) Tutorial, three hours. Requisite: course 199HB. Preparation of final version of honors thesis. Completion thesis must be sub- mitted to honors committee by last day of Spring Quarter. Letter grading.

19I. Independent Studies for Internships. (4) Preparation: maintenance of 3.0 grade-point average in major. Independent studies course to be super- vised jointly by Center for Experiential Education and Service Learning and faculty adviser. Further supervi- sion to be provided by business for which student is doing internship. May be used to satisfy require- ment for course 197 or 199. Normally, only 4 units of internship with History Department are allowed. P/N grading.

Graduate Courses

200A-200U. Advanced Historiography. (4 each) Seminar, three hours. May be repeated for credit.


200V. Advanced Historiography: Afro-American. (4) (Same as Afro-American Studies M200A.) Semi- nar, three hours. May be repeated for credit.

200W. Advanced Historiography: American Indi- an Peoples. (4) (Same as American Indian Studies M200A.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indian concepts of history. Ste- reotypical approach to content and methodologies re- lated to the Indian past that is interdisciplinary and multicultural in its scope. Letter grading.


200Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

200Z. Advanced Historiography: Chicano. (4) Dis- cussion, three hours. Graduate survey of leading liter- ature in Chicano history, with emphasis on new meth- odological and theoretical approaches in the field.

201A-201U. Topics in History. (4 each) Seminar, three hours. Topics title are same as courses 200A through 200U. Graduate courses involving reading, lecturing, and discussion of selected topics. Does not fulfill major requirement. May be repeated for credit. When concurrently scheduled with course 197, undergraduates must obtain consent of instructor to enroll.

202A-202Z. Seminars: Comparative Modern Eco- nomic History. (4-4) Seminar, three hours. Course 202A is requisite to 202B. Designed for graduate stu- dents. Study of problems of modern economics in the 19th and 20th centuries, including such topics as in- dustrialization, growth, demography, development, and economic change. S/U (nonmajors) or letter (ma- jors or nonmajors) grading.

203A-M203B. Social Theory and Comparative History. (4) (Same as Social and Cultural Science M291A- M291B and Sociology M296A-M296B.) Colloquium, three and one-half hours every other week. Introduc- tion to historically rooted social theory and theoreti- cally innovative historical program of the Latin Center for Social Theory and Comparative History. Each course may be taken independently for credit.

203C. Theories in Cultural History. (4) (Same as Sociology M296C.) Discussion, three hours. Introduc- tion to social, linguistic, semiotic, or other new inter- pretive theories and practices developed in other fields and applied to historical material. Letter grading.

207. Seminar in Ancient Mesopotamia. (4) (Same as Ancient Near East M250.) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. May be repeated for credit.
219A. Early Medieval Intellectual History: Thought, Language, and Religion 400 to 1000. (4) Lecture, three hours. Examination of ideas and means by which they were communicated in early Middle Ages. Concurrently scheduled with course C119A. S/U or letter grading.

219B. Later Medieval Intellectual History: Thought, Literacy, and Religion 1100 to 1500. (4) Lecture, three hours. Examination of evolution of ideas and means by which they were communicated in later Middle Ages. Concurrently scheduled with course C119B. S/U or letter grading.

CM220A. Interfaces: Transmission of Roman Literature. (4) Same as Classics M220A. Discussion, three hours. Examination of transmission of Latin classical literature in antiquity, Middle Ages, and Renaissance to understand processes by which Latin literature has been preserved. Concurrently scheduled with course C1210A. S/U or letter grading.

220A-220B. Seminars: Medieval History and Science of History. (4-4) Seminar, three hours. Course 220A is requisite to 220B. S/U (nonmajors) or letter (majors or nonmajors) grading.

221A-221B. Seminars: Medieval History. (4-4) Seminar, three hours. Course 221A is requisite to 221B. S/U (nonmajors) or letter (majors or nonmajors) grading.

222A-222B. Seminars: Medieval Intellectual History and Science of History. (4-4) Seminar, three hours. Course 222A is requisite to 222B. Selected problems from medieval and early modern philosophy, science, political theory, theology. S/U (nonmajors) or letter (majors or nonmajors) grading.

225. Colloquium for Entering Graduate Students in Modern European History. (4) Seminar, three hours. Normally limited to and required of all modern European history graduate students. Introduction to topics, methods, and bibliographies of modern European history.

226A-226B. Seminars: Italian Renaissance. (4-4) Seminar, three hours. Course 226A is requisite to 226B. S/U (nonmajors) or letter (majors or nonmajors) grading.

227A-227B. Seminars: Reformation. (4-4) Seminar, three hours. Course 227A is requisite to 227B. S/U (nonmajors) or letter (majors or nonmajors) grading.

229A-229B. Seminars: Early Modern European History. (4-4) Seminar, three hours. Course 229A is requisite to 229B. S/U (nonmajors) or letter (majors or nonmajors) grading.

M230A-M230B. Seminars: Modern European History. (4-4) Same as Art History M241A-M241B. Seminar, three hours. Course M230A is requisite to M230B. May be repeated for credit with permission of adviser. S/U (nonmajors) or letter (majors or nonmajors) grading.

231A-231B. Seminars: Modern European Intercultural and Cultural History. (4-4) Seminar, three hours. Course 231A is requisite to 231B. S/U (nonmajors) or letter (majors or nonmajors) grading.

232A-232B. Seminars: French History of the 19th and 20th Centuries. (4) Seminar, three hours. Course 232A is requisite to 232B. S/U (nonmajors) or letter (majors or nonmajors) grading.

233A-233B. Seminars: Russian/Soviet History. (4-4) Seminar, three hours. Course 233A is requisite to 233B. S/U (nonmajors) or letter (majors or nonmajors) grading.

234A-234B. Seminars: Modern History of Spain, Portugal, and Italy. (4-4) Seminar, three hours. Course 234A is requisite to 234B. S/U (nonmajors) or letter (majors or nonmajors) grading.

235A-235B. Economic History of Europe, 1780 to 1939. (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 major characteristics of postwar European economy. S/U (nonmajors) or letter (majors or nonmajors) grading.

M236A. Proseminar: Political Psychology. (4) Same as Political Science M261A and Psychology M228A. Discussion, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

236B-236C. Seminars: Psychohistory. (4-4) Seminar, three hours. Course 236B is requisite to 236C. Exploration of individual and group psychological processes and their uses in historical research. S/U (nonmajors) or letter (majors or nonmajors) grading.

239A-239B. Seminars: English History — Middle Ages. (4-4) Seminar, three hours. Course 239A is requisite to 239B. S/U (nonmajors) or letter (majors or nonmajors) grading.

240A-240B. Seminars: English History — Modern History. (4-4) Seminar, three hours. Course 240A is requisite to 240B. S/U (nonmajors) or letter (majors or nonmajors) grading.

241A-241B. Seminars: German History. (4-4) Seminar, three hours. Course 241A is requisite to 241B. Designed for graduate students. S/U (nonmajors) or letter (majors or nonmajors) grading.


244A-244B. Seminars: British Empire History. (4-4) Seminar, three hours. Course 244A is requisite to 244B. S/U (nonmajors) or letter (majors or nonmajors) grading.

245. Colloquium: U.S. History. (4) Seminar, three hours. Normally limited to and required of all entering graduate students in U.S. history. Critical introduction to historical method, with emphasis on new methodological and conceptual approaches, use of source materials, and the current state of U.S. historiography.

246A-246B-246C. Introduction to U.S. History. (4-4-4) Seminar, three hours. Graduate survey of significant literature dealing with U.S. history from the Colonial period to the present. Each course may be taken independently, subject to credit. 246A. Colonial Period; 246B. 1790 to 1900; 246C. 20th Century.
262A-262B. Seminars: Chicano History. (4-4) Seminar, three hours. Course 262A is requisite to 262B. S/U (nonmajors) or letter (majors or nonmajors) grading.

263A-263B. Seminars: History of American West. (4-4) Seminar, three hours. Course 263A is requisite to 263B. S/U (nonmajors) or letter (majors or nonmajors) grading.

264A. History of American Education. (4) (Same as Education M201C) History of educational thought and of social forces impinging on American education from the 1860s to the present. Analysis of relation between these ideas and forces, and aims and practices of American education today.

265. Latin American Research Resources. (4) (Same as Information Studies M225 and Latin American Studies M200.) Seminar, three hours. General and specialized materials in fields concerned with Latin American studies. Library research techniques provide experience and competency required for future bibliographic and research sophistication as basis for enhanced research results.

266A-266B. Seminars: Colonial Latin American History. (4-4) Seminar, three hours. Course 266A is requisite to 266B. S/U (nonmajors) or letter (majors or nonmajors) grading.

267A-267B. Seminars: Latin American History, 19th and 20th Centuries. (4-4) Seminar, three hours. Course 267A is requisite to 267B. S/U (nonmajors) or letter (majors or nonmajors) grading.

268A-268B. Seminars: Recent Latin American History. (Same as Latin American Studies M268A-M268B.) Seminar, three hours. Course 268A is requisite to 268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature. S/U (nonmajors) or letter (majors or nonmajors) grading.

275A-275B. Colloquia: African History. (4-4) Seminar, three hours. Designed for all entering and continuing graduate students in African history. Source identification, research methodologies, historiographical traditions, historical interpretation, approaches to teaching, and research design. Forum for critical discussion of dissertation prospectuses and work in progress. Each course may be taken independently for credit. S/U or letter grading.


282A-282B. Seminars: Chinese History. (4-4) Seminar, three hours. Course 282A is requisite to 282B. S/U (nonmajors) or letter (majors or nonmajors) grading.

285A-285B. Seminars: Japanese History. (4-4) Seminar, three hours. Course 285A is requisite to 285B. S/U (nonmajors) or letter (majors or nonmajors) grading.

M286. Japan in Age of Empire. (4) (Same as Anthropology M276 and East Asian Languages M292.) Seminar, three hours. Designed for graduate students. Since the late 19th century, Japan expanded its empire into East and Southeast Asia. Coverage of that period and array of anthropological studies conducted in Japan's colonies and occupied areas in this hardly explored area of study of colonialism. S/U or letter grading.

288A-288B. Seminars: South Asia. (4-4) Seminar, three hours. Course 288A is requisite to 288B. S/U (nonmajors) or letter (majors or nonmajors) grading.

289A-289B. Seminars: Southeast Asia. (4-4) Seminar, three hours. Course 289A is requisite to 289B. S/U (nonmajors) or letter (majors or nonmajors) grading.

291A-291B. Seminars: Jewish History. (4-4) Seminar, three hours. Course 291A is requisite to 291B. Studies in intellectual and social history of Jewish people from ancient times to the modern period. S/U (nonmajors) or letter (majors or nonmajors) grading.

293A-293B. Seminars: History of Religions. (4-4) Seminar, three hours. Course 293A is requisite to 293B. S/U (nonmajors) or letter (majors or nonmajors) grading.

294A-294B. Western Science, Religion, and Political Economy, 1600 to 1830. (4-4) Seminar, three hours. Study of science integrated within matrix of religious belief commonplace in early modern Europe and, to a lesser extent, in American colonies. Examination of relationship of both cultural matrices to political and economic change. S/U or letter grading.

295. Theories of Scientific Change. (4) Seminar, three hours. Historical and philosophical perspectives on science, focusing on rationality of scientific change and logic and psychology of scientific discovery. Readings and seminar-style discussions of such authors as Popper, Kuhn, Toulmin, Lakatos, Holton, Buchdahl, Feyerabend, and others.

296. History of Statistics. (4) (Same as Statistics M245.) Seminar, three hours. History of statistics ranges over vast and diverse territory. Development of mathematical methods; philosophical, political, and social issues that were linked to their emergence and use. S/U or letter grading.

297A-297B. Seminars: History of Science. (4-4) Seminar, three hours. Course 297A is requisite to 297B. S/U (nonmajors) or letter (majors or nonmajors) grading.

M298. Interdisciplinary Studies in the 17th and 18th Centuries. (4) (Same as English M298.) Topics vary according to participating faculty. May be repeated for credit.

M299. Interdisciplinary American Studies. (6) (Same as English M299.) Discussion, four hours. Readings, discussion, and papers on a common theme, team-taught by faculty from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, two hours. Designed for all entering and continuing graduate students in history. May be repeated for credit with consent of instructors.

490. Writing Workshop for Graduate Students. (4) Tutorial, three hours. Writing workshop on students' papers-in-progress. Analysis and group discussion of rhetorical and stylistic principles, illustrated in students' own and in professional historians' work, help students improve their own writing. May be repeated once. S/U grading.

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

History/Art History
Interdepartmental Program
College of Letters and Science

UCLA
100 Dodd Hall
Box 951417
Los Angeles, CA 90095-1417
(310) 825-3480
fax: (310) 206-1903
http://www.humnet.ucla.edu/humnet/arthist/home.html

Donald A. Preziosi, Ph.D., Chair
Faculty Advisory Committee
Irene A. Bierman, Ph.D., Robert L. Brown, Ph.D., Ronald J. Mellor, Ph.D., Donald A. Preziosi, Ph.D., Chair
Debora L. Silverman, Ph.D.

Affiliated Faculty
Professors
Robert L. Brown, Ph.D. (Art History)
Ronald J. Mellor, Ph.D. (History)
Donald A. Preziosi, Ph.D. (Art History)
Debora L. Silverman, Ph.D. (History)

Associate Professor
Irene A. Bierman, Ph.D. (Art History)

Scope and Objectives
The interdisciplinary major in History/Art History allows students to study the relationship between art history and the history of society, politics, and culture.

Undergraduate Study
History/Art History B.A.

Lower division history and art history courses may be applied toward the general education requirements; a course taken to satisfy the American History and Institutions requirement may be applied toward the history section of the interdepartmental major. All courses must be taken for a letter grade.

Students wanting to confer with a counselor regarding program planning and major requirements should contact the history/art history counselor at (310) 825-3480.

Preparation for the Major
Required: History 1A, 1B, 1C; two courses from Art History 50, 51, 54, 57; one course from Art History 55A, 55B, 56A, 56B.

Transfer Students
To be admitted as History/Art History majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of history of Western civilization, two art history courses in ancient, Renaissance and baroque, medieval, or modern art, and one non-Western art history course.
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 major and an overall GPA of 3.0 or better, and (3) complete Art History 195A and 195B 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 major and an overall GPA of 3.65 or better, and (3) complete Art History 195A and 195B with grades of A.

HONORS COLLEGIUM
College of Letters and Science

UCLA
A311 Murphy Hall
Box 951414
Los Angeles, CA 90095-1414
(310) 825-1553
fax: (310) 825-1553
(310) 206-2175
http://www.college.ucla.edu/up/honors/honorscollegium.html

Faculty Advisory Committee
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Adolfo Bermeo, Ph.D. (Academic Advancement Program)
Ruth H. Bloch, Ph.D. (History), Chair
David B. Cline, Ph.D. (Physics and Astronomy)
Robert B. Goldberg, Ph.D. (Molecular, Cell, and Developmental Biology)
Patricia M. Greenfield, Ph.D. (Psychology)
Gail Kligman, Ph.D. (Sociology)
Jacqueline Leavitt, Ph.D. (Urban Planning)
William M. Mason, Ph.D. (Sociology)
Brian D. Walker, Ph.D. (Political Science)

Scope and Objectives
The Honors Collegium is an unusual educational alternative, with an interdisciplinary emphasis. The collegium encourages animated discussion among students, as well as between students and professors. It seeks to promote scholarly exchange across major disciplines in the University. 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. Many 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. An Honors Collegium brochure, which gives detailed course descriptions, is available at http://www.college.ucla.edu/up/honors/.

Honors Collegium
Lower Division Courses

1. City on Edge: Fiction of Los Angeles. (5) (Not the same as course 1 prior to Fall Quarter 2003.) Seminar, four hours. Study of city of Los Angeles through examination of important and representative novels (and occasionally other media) that take the city as their subject as well as their setting. 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. History and Visual Culture from Engraving to Film and Television. (5) (Not the same as course 3 prior to Fall Quarter 2000.) Seminar, three hours. Interdisciplinary look at relationship between visual imagery and historical developments, tracing evolution of visual culture in relationship to forms of political, social, and cultural authority in media from 17th-century engravings to post-World War II television. P/NP or letter grading.

4. Immigrants and American Dream. (5) (Not the same as course 4 prior to Fall Quarter 2003.) Seminar, three hours. Study of process of attaining the “American Dream;” including analysis of different perspectives on immigration and assessment of success based on such measures as occupational achievement, home ownership, and political participation. P/NP or letter grading.

5. Representing Cleopatra: History, Drama, and Film. (5) (Not the same as course 5 prior to Fall Quarter 2003.) Seminar, three hours. Examination of comparative study of various societies at various times, of phenomena that are taken for granted as natural but which are actually historically constructed, including perception (time and space) and hierarchy (race and gender). P/NP or letter grading.

6. Historical Construction of Reality. (4) Seminar, three hours. Examination, through comparative analysis of various societies at various times and in various places, of phenomena that are taken for granted as natural but which are actually historically constructed, including perception (time and space) and hierarchy (race and gender). P/NP or letter grading.

7A. Urban Poverty and Public Policy in the U.S. (4) Lecture, four hours; discussion, one hour. Focus on social welfare in the U.S., providing historical overview of poverty and the social programs that have attempted to deal with it and addressing current debate on the subject. P/NP or letter grading.


8. Communication among Organisms. (4) Lecture, three hours; discussion, two hours. Study of communication among a variety of taxonomic groups ranging from single-celled organisms to plants, whales, and nonhuman primates. P/NP or letter grading.

10. Colonial Legacies: Childhood and Islam in Francophone Africa. (5) (Not the same as course 10 prior to Fall Quarter 2003.) Seminar, three hours. Through broad range of novels and films from Guinea, Cameroon, Senegal, and Mali, study of cultures of Francophone sub-Saharan Africa, including colonialism, polygamy, education, female circumcision, and racism. P/NP or letter grading.

Honors Program
The honors program is designed for History/Art History majors who are interested in carrying out an independent research project that culminates in a 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 History/Art History majors who have completed a minimum of four upper division courses in History with a 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 undergraduate counselor one term prior to beginning the honors program.
11. Reinventing African History. (5) (Not the same as course 11 prior to Fall Quarter 2000.) Seminar, three hours. Exploration of African history and its representation in African and world literature, film, and the arts; particular focus on two schools defined by old Eurocentric stereotypes of Africa and new stereotypes arising from an Afrocentric model. P/NP or letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) (Not the same as course 12 prior to Fall Quarter 2000.) Seminar, three hours. Exploration of cultural and literary development in India from early religious poetry (prior to 1000 B.C.) to broad range of literary styles and diverse religious and philosophical movements through classical, medieval, and premodern period. P/NP or letter grading.

13. Fantastic Voyage: From Homer to “2001.” (5) (Not the same as course 13 prior to Fall Quarter 2003.) Seminar, three hours. Study of phenomenon of fantastic or imaginary voyage from Homer’s Odyssey to Stanley Kubrick’s 2001: A Space Odyssey P/NP or letter grading.

14. Interaction of Science and Society. (4) Seminar, three hours. Examination of interaction of science and society and effects of this interaction on history, development of solutions of societal problems 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. Acting Myth. (4) (Not the same as course 15 prior to Fall Quarter 2000.) Seminar, three hours. Inter-disciplinary approach to literature and acting through study of texts and mythologies from variety of Indo-European and Near Eastern sources; students learn acting techniques in directed scenes from the texts. P/NP or letter grading.

16. Contemporary Fiction and Psychology of the Self. (4) Seminar, three hours. Examination of relationship between personal and interpersonal dynamics in literature as they are illuminated by Heinz Kohut’s theories of self-psychology. P/NP or letter grading.

17. Civil Rights, Women’s Rights, Human Rights. (5) (Not the same as course 17 prior to Fall Quarter 2000.) Seminar, three hours. Investigation of lived history of rights, including context and implications of 14th Amendment, subsequent civil rights activism, women’s rights, internationalization of these notions in politics of human rights, and current critiques of “rights talk.” P/NP or letter grading.

18. Trial of Socrates. (4) 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. Rhetoric on Trial: Legal Advocacy, Ancient and Modern. (4) (Not the same as course 19 prior to Fall Quarter 2000.) Seminar, four hours. Examination of theory and practice of classical rhetoric through readings, discussions, and practical exercises, including field study of contemporary usage in political arena and courts. P/NP or letter grading.

20. What Is This Thing Called Science?: Nature of Modern Science. (5) (Not the same as course 20 prior to Fall Quarter 2002.) Lecture, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Study of early and mid-20th-century attempts to construct significance in a general climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Letters and Science Writing II requirement. Letter grading.

22. Short History of Science: Reading the Great Book of the Universe. (4) (Not the same as course 22 prior to Fall Quarter 2000.) Seminar, four hours. Examination of key concepts of modern science through their historical development, including study of impact of scientific and industrial revolutions on art, economy, environment, religion, and structures of society. P/NP or letter grading.

23. Law and Political Economics of Property and Environment. (5) (Not the same as course 23 prior to Fall Quarter 2003.) Seminar, three hours. Study of property rights, entitlements, public goods, and rational choice theory as applied to such property-policy issues as zoning land use, landlord-tenant relations, and environmental concerns. P/NP or letter grading.

24. Representing Medicine: Art, Literature, and Film. (5) (Not the same as course 24 prior to Summer Quarter 2000.) Lecture/discussion, 10 hours. Limited to Freshman Summer Program students. Examination of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of the professions, 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. Theories of Exchange: Social Life of Gifts and Commodities. (4) Seminar, three hours. Study of human behavior, microbiological culture, and social and political relations are modulated through exchange of goods and/or commodities in different contexts and different societies. P/NP or letter grading.

28. Perils of Living in Space: Introduction to Space Weather. (5) (Not the same as course 28 prior to Fall Quarter 2003.) Seminar, four hours. Preparation: high school calculus. Study of conditions in space that affect Earth and its systems, conditions that are consequences of behavior of sun, nature of Earth’s magnetic field and atmosphere, and our location in solar system. P/NP or letter grading.


31. Current Environmental Problems. (5) Lecture/discussion, four hours. Examination of current pressing environmental issues, including overpopulation, greenhouse effect, loss of biodiversity, and toxic waste production and disposal. P/NP or letter grading.

32W. Creativity and Culture: Making Things New in the Arts, Humanities, Social Sciences, and Sciences. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Study of creative acts of artists, writers, social scientists, and scientists in relation to their societies, cultures, disciplines, conventions, and art forms. Satisfies Letters and Science Writing II requirement. Letter grading.

33W. Art of Engagement. (6) Seminar, three hours; two-hour writing laboratory. Enforced requisite: English Composition 3 or 3H. Cross-disciplinary, cross-cultural examination of literature, art, and film as a way of discovering how writers and artists treat conflict between art as something inward and psychological and personal and society as a whole. Vehicle of social and political import. Satisfies Letters and Science Writing II requirement. Letter grading.

34. Scientific Method: Critical Inquiry into Questions of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presuppose any prior knowledge of astronomy, but assumes to answer question of whether there is intelligent life in the universe but rather uses this question as a pedagogical tool to introduce central ideas, techniques, and limitations of 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.

35. Scientific Method: Critical Inquiry into Questions of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presuppose any prior knowledge of astronomy, but assumes to answer question of whether there is intelligent life in the universe but rather uses this question as a pedagogical tool to introduce central ideas, techniques, and limitations of 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.

36. Ethnicity and Social Class in America. (4) Introduction to data analysis, quantitative method, and use of statistics in social sciences, using General Social Survey (GSS) and concentrating particularly on ethnicity and social class. Students conduct statistical research of their own. P/NP or letter grading.

37A. Ethnicity, Gender, and Social Class in the U.S. and Other Societies. (4) Seminar, three hours. Study of the U.S. and other nations in terms of social class, gender, ethnicity, and absorption of immigrants, with emphasis on manipulation and analysis of data sets from census and survey data provided through institutional software. P/NP or letter grading.

37B. Ethnicity, Social Class, and Social Mobility in Latin America. (4) Seminar, three hours. Course 37A is not required to 37B. Study of Los Angeles in terms of social class, social mobility, ethnicity, and absorption of immigrants, with emphasis on manipulation and analysis of data sets from census and survey data provided through institutional software. P/NP or letter grading.

38W. Body-Mind Literacy. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Study of history, philosophy, and science of relationship between body and mind, including writing, critical thinking, and practice. Satisfies Letters and Science Writing II requirement. Letter grading.

39. Early Modern French Culture in Film. (5) (Not the same as course 39 prior to Fall Quarter 2001.) Seminar, three hours. Using films and texts, study of development of courtly culture in France from the Renaissance to its demise in the Enlightenment and its replacement with new ideas of nature, education, and civic virtue. P/NP or letter grading.

40W. Transformations of Cultural Stories across Disciplines and Texts. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H. Tracing of writing and rewriting of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and Coetzee’s Foe and the fairy tale as represented by Cinderella and its various cross-cultural remanifestations. Satisfies Letters and Science Writing II requirement. Letter grading.

41W. A Thousand Words: Literature of Renaissance Art. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Examination of literary, social, religious, and cultural influences on Renaissance narrative art, particularly on art found in local museums such as the Getty, Norton Simon, and Los Angeles County Museum of Art. Satisfies Letters and Science Writing II requirement. Letter grading.

42. Male Identity and Sexuality in Ancient Rome. (4) Seminar, three hours. Investigation of Roman cultural constructions of male identity and sexuality in context of political and social change in an emergent imperial ideology in the 1st century C.E.; examination of male “virtus,” sexual stereotypes, and dynamics of sex and power in imperial politics. P/NP or letter grading.

44. Trail of Light. (4) Lecture, three hours; discussion, two hours. Study of our understanding of light, colors, and vision: physics of light from Newton to Einstein; physics, chemistry, and biology of vision in relation to color and appearance of light in art. P/NP or letter grading.
45W. Writing about Life Sciences. (5) Seminar, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Enforced corequisite: Life Sciences 2. Study and practice of writing in life sciences, including popular, literary, and scientific discourse. Satisfies Letters and Science Writing II requirement. Letter grading.

45L. Writing in Literature. (5) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Cross-cultural examination of 19th- and 20th-century literature of testimony about and generation. P/NP or letter grading.

46W. Literature of Testimony. (5) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Cross-cultural examination of 19th- and 20th-century literature of testimony about and generation. P/NP or letter grading.

47. Literature of Colonization and Colonization of Literature. (4) Seminar, three hours. Examination of various facets of interaction between Western and non-Western cultures since period of high imperialism beginning in the mid-19th century, with focus on the novel as prism through which to observe cultural meeting and interchange and their consequences. P/NP or letter grading.

48. Politics of Reproduction. (4) Seminar, three hours. Examination of complex relations between individual, local, and global interests as they shape and reproduce public practices, public policy, and exercise of power. P/NP or letter grading.

49. Evidence in Law, Science, History, and Journalism. (4) Seminar, four hours. Rigorous study of ways in which lawyers, scientists, historians, and journalists handle evidence, with aim of advancing disciplinary inquiry to produce a common vocabulary and set of concepts that allow for discussion of evidentiary issues in differing fields of inquiry. P/NP or letter grading.

53. American Folk Music, Protest, and Identity. (5) (Not the same as course 53 prior to Fall Quarter 2001.) Seminar, three hours. Study of American folk music as a prism to investigate more general relationships among cultural boundaries such as musical genres and social categories (race, ethnicity, nation, and generation). P/NP or letter grading.

55. Culture and History of Utopias. (4) Seminar, three hours. Study of major utopian writings from Thomas More’s classical text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grading.

56. Language as a Window to the Mind. (4) Lecture, four hours; discussion, one hour. Study of topics in language and the mind, including language acquisition in the child, language representation in the brain, relationships between language and other mental abilities, and autonomous nature of language as a system of knowledge. P/NP or letter grading.

58. Slavery and Freedom in Greco-Roman Antiquity. (5) (Not the same as course 56 prior to Fall Quarter 2002.) Seminar, three hours. Study of diversity of primary sources, exploration of paradox that Greco-Roman civilization, which first developed concept of humanity and humane values, accepted slavery without much provoking any serious challenge to it. P/NP or letter grading.

59W. Literature and Culture of the American South. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Examination of historical imagination as it is expressed in such writers as William Faulkner, Allen Tate, Flannery O’Connor, Richard Wright, and Zora Neale Hurston; in Civil War and WPA/FSA photography, and in Southern regional political and legal documents. Satisfies Letters and Science Writing II requirement. Letter grading.

60. Discovering and Explaining Anomalies of English. (5) Seminar, four hours. Study of linguistic anomalies, historical facts of English that brought about these irregularities, and artificiality of notion of “standard English.” P/NP or letter grading.

62. Community and Self-Interest in History of American Culture. (6) Lecture, four hours; discussion, one hour. Exploration of historical origins of the frequency hierarchy of values which inform American thought and culture: hierarchy and equality, institutional constraints and voluntarism, collective sense of mission and belief in the autonomous individual. P/NP or letter grading.

63. Civic Engagement and Public Use of Knowledge. (5) (Not the same as course 63 prior to Fall Quarter 2002.) Seminar, four hours. Review and analysis of civic engagement on role of citizens in modern-day democracy and balance or tension between personal gain and public good, including service learning component. P/NP or letter grading.

64. Neuroscience and Psychology of Art and Biology of Aesthetics. (6) (Not the same as course 64 prior to Fall Quarter 2001.) Seminar, three hours. In-depth interdisciplinary approach to study of premise that beauty, whether of faces, art works, or other subjects, is processed by the brain and can be understood as a neurological and psychological phenomenon. P/NP or letter grading.

65. Literature and Culture of Francophone World. (6) (Not the same as course 65 prior to Fall Quarter 2001.) Seminar, three hours. Study of major literary texts from North and sub-Saharan Africa, Guadeloupe, Haiti, Martinique, Vietnam, and France and examination of culture, four hours; discussion, one hour. Study of major utopian writings from Thomas More’s classical text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grading.

66. Systems Thinking: Exploring Order and Chaos in Everyday Life. (5) (Formerly numbered 1.) Seminar, three hours; laboratory, one hour. Exploration of neural networks, genetic algorithms, and system languages as a way of defining, measuring, exploring, and creating systems. P/NP or letter grading.

67. Structure of Physical Reality. (4) Lecture, three hours; discussion, one hour. No special mathematical knowledge required. Course in modern physics, including videos and practical demonstrations, explores structure of physical reality and discussions of the forces of nature. Topics include quantum mechanics, microcosm of atoms, and elementary particle physics and philosophical implications. P/NP or letter grading.

68. Environmentalism and Public Use of Knowledge. (5) Lecture, two hours; discussion, two hours. Examination of ethical and social implications. P/NP or letter grading.

69. Artificial Life and Evolutionary Design: Theory and Practice in Multiagent Modeling. (5) (Not the same as course 69 prior to Fall Quarter 2001.) Seminar, five hours. No special mathematical or computer knowledge required. Study of artificial life, artificial intelligence, virtual environments, and evolutionary computation through both literature on simulations and practical engagement in simulations themselves. P/NP or letter grading.

70. Genetic Engineering in Medicine and Agriculture. (4) Lecture, 90 minutes; discussion, two hours. Study of major topics related to human genome sequence has on our concepts of ourselves as individuals and our place in biological universe. P/NP or letter grading.

71. Cultural Heritage and Virtual Reality. (5) (Not the same as course 71 prior to Fall Quarter 2001.) Seminar, four hours. Study of application of virtual reality technology to historical sites, using three-dimensional computer models of such sites as Cathedral of Santiago de Compostela, Colosseum, and Second Temple in Jerusalem. P/NP or letter grading.

72. From Genes to Cells: Simple Science with Complex Implications. (4) Lecture/discussion, three hours. Discussion of recent advances in understanding of biology — from genetics to ecology — with emphasis on ethical and social implications. Taught in conjunction with Kyoto University in Japan. P/NP or letter grading.

73. Elementary Particles in the Universe. (4) Lecture, two hours; discussion, 90 minutes. Study of basic mathematical knowledge required. Examination of elementary particle physics, including status of its current study in laboratories around the world and its role in assessing the early evolution of the universe. P/NP or letter grading.

76. Thinking about Rights. (5) (Not the same as course 76 prior to Fall Quarter 2002.) Seminar, three hours. Examination of character of rights, who is capable of exercising rights, and the content of rights as they have been debated and fought over in theoretical writings and political arenas for three centuries. P/NP or letter grading.

77. Space Science: Active Sun and Its Effects on Earth. (4) Lecture, 90 minutes. Study of consequences of solar magnetic storms on Earth, using latest NASA and ISAS tools for monitoring the sun and recording, through computer simulations, its effects. Joint course between Kyoto University, using distance learning technology. P/NP or letter grading.


79. Genome: Blueprint, Controversy, Destiny. (5) Lecture, three hours; laboratory, three hours. Not open to students with credit for Life Sciences 3 or 4. Laboratory-based exploration of topics related to Human Genome Project, including DNA coding, impact of Human Genome Project on society, use of DNA in forensic analysis, designer genes, and genomes as basis of new insights into evolution. P/NP or letter grading.

80. Genomics and Boundaries of Self. (5) Seminar, three hours. Study of knowledge of genetic engineering of entire human genome sequence has on our concepts as individuals and our place in biological universe. P/NP or letter grading.

81. Eastern Christianity in Comparative Perspective: History, Doctrine, Culture. (5) Lecture, two hours; discussion, two hours. Exploration of philosophical and metaphysical beliefs of Eastern Christianity, comparing and contrasting Eastern churches to those that dominate in the West and examining how Eastern Orthodox outlook has developed within broader Judeo-Christian tradition. P/NP or letter grading.

82. Community and Labor Development from Ground Up. (4) Lecture, three hours; discussion, one hour. Introduction to practical applications of community development and outreach efforts in Los Angeles area, with projects from Community Outreach Partners, former School of Public Policy and Social Research. P/NP or letter grading.

83W. Politics and Rhetoric of Literature. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Examination of relationships among politics, rhetoric, and literature in study of literature from classical times to the present, broadening into general discussions of development of political thought, in Western thought, particularly conflict between self and state, between ideology and the practical business of living. Satisfies Letters and Science Writing II requirement. Letter grading.

92. Genes, Genomics, and Internet. (4) Lecture, two hours; computer laboratory, three hours. New science of genomics (computer analysis of genetic information), dealing with issues related to basic genetics, medicine, biotechnology, evolution, information technology, and their societal impact. P/NP or letter grading.

94. Historic Roots of Healing Arts. (4) Seminar, four hours. Not open to students with credit for Psychiatry 98H. Introduction to traditions, practices, goals, and myths of healing professions in Western medicine. P/NP or letter grading.

95. Art, Politics, and Social Change in 19th-Century England and France. (4) Seminar, three hours. Exploration, through analysis of artists and intellectuals in 19th-century England and France, of social factors in cultural expression and way that national traditions and political and social conditions shape each set of literary and artistic innovations. P/NP or letter grading.

97. Issues in American Foreign Policy: Methodology of Assessment. (4) Lecture/debate, three hours; course Web site, three hours. Exploration in debate format of wide range of views on contemporary foreign policy issues to train students how to discern the ideological origins of policy arguments. Examination of material in major foreign policy journals. P/NP or letter grading.

98. Fiat Lux Seminar. (1) Seminar, one hour. Discussion of and critical thinking about topics of current interest. P/NP grading.

101. Late Medieval Italy. (4) Seminar, three hours. Through medieval texts and representations of the human figure in art, examination of rise of merchant and banking class in late medieval Italy; focusing on ideological and economic issues rooted in context for conflict with papacy, growth of mobility, and choice between Earth and sky. P/NP or letter grading.

107. Painful Birth: Rise of Modern Capitalism in Late Medieval Italy. (4) Seminar, three hours. By analysis of sources, development of working model. P/NP or letter grading.

109. Language, Meaning, and the Making of Poety. (4) Seminar, two hours; workshop, one hour. In words of the august professor, “Semanticological warfare against the purveyors of semantic entropy,” in context of and comparison with contemporary speech, study of history of philosophic and poetic discourse on language and its potentials, including social and political implications. 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.

112. Inner and Outer Worlds of Children: Social Policies. (4) (Formerly numbered 112) (Same as Education M112.) Seminar, four hours. Practices and analysis of social policies impacting on children. Topics include assessment, social justice and geographies of space, temporal orientation, and classical theories of adolescent development. Letter grading.

116. Art Alive: Art and Improvisation in the Museum. (4) (Same as Theater M115.) Seminar, four hours. Offered in collaboration with the Los Angeles County Museum of Art (LACMA). Interpretation of art in the collection through acting, dialogues, movement, and music. Research into history and art and history and production of a creative performance piece required. P/NP or letter grading.

121. Religion and Politics. (4) Seminar, three hours. Examination of and reaction to the role of religion in political matters such as war and peace, revolution, and development of nuclear proliferation and avoiding nuclear catastrophe. Letter grading.

122. Violence Against Women in Cross-Cultural Perspectives. (4) Seminar, three hours. Exploration of sources of violent acts against women in different societies. Topics include wife beating, female sexual slavery, female infanticide, dowry deaths, female genital “circumcision,” rape, and emerging global human rights responses to these issues. P/NP or letter grading.

123. War and Peace in Africa. (4) Seminar, four hours. Investigation into main causes and forms of warfare on African continent, including relationship between external war and transborder conflict, historic ethnic antagonism, competition for control of natural resources, and hostilities precipitated by militarism. P/NP or letter grading.

124. Logos. (4) Seminar, three hours. Exploration of the concept of logos in classical and modern philosophy through study of individual and group development. P/NP or letter grading.

125. Interpretations of Shakespeare in Theater and Film in the 20th Century. (4) Seminar, three hours. Textual content of five Shakespearean dramas and their film and stage interpretations in the 20th century, including participation in rehearsals of production of A Midsummer Night’s Dream. P/NP or letter grading.

126. Making Citizens/Making Societies: Political Cultivation in Cross-Cultural Perspective. (4) (Formerly numbered 117.) Seminar, three hours. Examination of how a society takes active concern in making sure that certain politically relevant dispositions, sensitivities, capacities, and skills are nourished in population at large, including models of both aristocratic and democratic cultivation and their political implications. P/NP or letter grading.

127. Citizenship, Leadership, and Service. (4) Seminar, three hours; fieldwork, three hours. Interactive participatory study of interactions between citizenship, leadership, and service, including both theoretical work in classroom and practical work in service organizations in the field. P/NP or letter grading.

128. Latinos and Literacy. (5) (Formerly numbered 124.) Seminar, three hours; field project, three hours. Preparation: Spanish fluency or completion of two years of university-level Spanish. Study of theory and practice of teaching literacy, including field-based work in adult literacy centers in the city. P/NP or letter grading.

129. Cultural Construction of Gender and Sexualit...
130. How Cold War Was Played. (4) Lecture/discussion, four hours. Examination of what prompted the Cold War, why it lasted so long, what its impact was on political and socioeconomic systems of two main protagonists, and what its legacy has become. P/NP or letter grading.


132. Bible as Political Theory. (4) Formerly numbered 26. Seminar, four hours. The Bible treated as a political text, addressing the prepolitical condition, formation of a political community, the state, survival without a state, and messianism, with focus both on institutions and on intellectual history. P/NP or letter grading.


M135. Narrative in Mass Communication. (6) (Same as Communication Studies M135.) Seminar, four hours. Examination of narrative as a primary function of mass media, beginning with social, psychological, cultural, and rhetorical functions of storytelling and basic elements of narrative, then applying these to study of film, television, and print media. P/NP or letter grading.

137. Political Satire: Offensive Art. (5) Seminar, three hours. Study of political satire in several societies and variety of genres, including review of sociopo-economic conditions that act to foster or constrain satire. P/NP or letter grading.

138. Disease and Human Condition. (5) Seminar, four hours. Exploration of scientific characteristics and historical manifestations of group of diseases that have shaped civilization; discussion of how historical manifestations of each disease are embedded in social and economic conditions of its time. P/NP or letter grading.

139. African Americans and Africa in Perspective. (5) Seminar, four hours. Study of saga of how African Americans have struggled to reattach their identity to Africa and Africans in both historical and contemporary perspectives. P/NP or letter grading.

142. Madness in the Enlightenment: Care and Cure of Mental Illness. (5) Formerly numbered 52. Seminar, four hours. Not open for credit to students with credit for former course 52 or Psychiatry 98B. Study of physicians and reformers of the Enlightenment who treated the mentally ill, examined in context of social, intellectual, and cultural history of the time. P/NP or letter grading.

143. From Latin America to the U.S.: Immigration and Latino Identity. (4) Same as Chicana and Chicano Studies M124.) Lecture, three hours. Overview of immigration in the 20th century, examining social, political, and economic contexts out of which different waves of Latin American immigration to the U.S. has occurred. Letter grading.

145. Politics of Crisis: Migration, Identity, and Religion. (4) Same as Chicana and Chicano Studies M126.) Lecture, two hours; tutorial, two hours. Examination of individual and collective religious response of Latin Americans and Latinas/Latinos in the U.S. to displacements, displacements, and fragmentation produced by conquest, colonization, oppression, globalization, and migration. Letter grading.

147. Feminism Around the World: Past and Present. (5) Seminar, three hours. Historical and global perspective on variety of feminist movements in the world, including their similarities and differences. P/NP or letter grading.

M148. Simulating Society: Exploring Artificial Communities. (5) Formerly numbered M198A. (Same as 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. Culture: What Makes It Work. (5) Seminar, four hours. Examination of some basic questions that arise in study of what we mean by culture, including new theory and methods, using multiagent modeling, that allows us to do quasi-experimental research into nature of culture. P/NP or letter grading.

M150. Models and Modeling in Anthropology. (4) (Same as Anthropology M186.) Lecture, three hours. Modeling from both individual and social structure viewpoints. Introduction to four groups of models, along with ethnographic examples — decision tree models, indifference curve and marginal cost models, adaptation and learning models, and information diffusion models. Letter grading.

151. American Jews and Israel in Mutual Perspective. (4) Lecture, two hours; discussion, one hour. Examination of relationships between Israel and Jews in the U.S., with emphasis on locating the two communities in Jewish history and political impact of this relationship. Offered mutually with parallel course at Tel Aviv University, including shared bulletin board and chat room. P/NP or letter grading.

152. Collapses of Past Societies and Their Lessons for Our Own Future. (5) Lecture, two hours; discussion, one hour. Examination of several sets of preindustrial societies that met varying fates (Polynesians on Pacific islands, societies of Southwestern U.S., and Vikings on North Atlantic islands), as background to examination of how some modern societies are coping or failing to cope with their environmental impacts. P/NP or letter grading.

153. International Hot Spots. (5) Seminar, three hours. Debate-style seminar concentrating on expansive confrontation points in current international affairs, including North and South Korea, India and Pakistan, Israel and Palestinians, Iraq, Colombia, and Congo and Rwanda. P/NP or letter grading.

M154. Interpreting Performance: Examination of Social, Historical, and Cultural Models for Performing Arts. (5) (Same as Theater M112.) Lecture, two hours; discussion, two hours. Examination of nature of performance in theory and practice and of social, historical, and cultural contexts in which performance traditions have evolved. Attendance at approximately five designated performances/events required. P/NP or letter grading.

155. The U.S. and World Post-9/11. (5) Lecture, two hours; discussion, two hours; tutorial, 90 minutes every other week. Survey of major questions confronting American foreign policy in period since September 11, 2001, in course organized in conjunction with series of public lectures on this topic. P/NP or letter grading.

199. Directed Honors Studies. (4) Tutorial, two hours. Preparation: minimum of 4 units completed in Honors Collegium with a grade of B or better, overall UCLA grade-point average of 3.0 or better. Special research writing tutorial with a director of one of the Honors Collegium courses in order to pursue in greater depth a significant topic from one of the collegium courses. P/NP or letter grading.

Scope and Objectives

The graduate Human Genetics Program prepares students for careers as independent laboratory researchers with a firm grasp of the developments in biological and medical research. The rapidly evolving field of human genetics now incorporates genetic, biochemical, cell biological, and developmental biology, and behavioral studies of both humans and model organisms to tackle biomedical problems important for human health and disease. Areas of study include both Mendelian and non-Mendelian hereditary diseases, genomics and mapping, bioinformatics, developmental biology, neurogenetics, sex determination, cytogenetics, human malformation, and chromatin structure and function. Laboratory research is emphasized. Conceptual approaches to medically related biological problems are employed, frequently with the aid of automation and advanced imaging techniques, toward the goal of disease prevention, control, and eradication methods such as gene therapeutics. Coursework acquaints students with the most current literature and trains students in critical thinking, experimental design, and the ability to anticipate future developments.

Graduate study leading to a Ph.D. degree is emphasized. Under special circumstances, master’s candidates are considered after consultation with faculty members and the chair.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Human Genetics. An M.D./Ph.D. program is also offered.

Human Genetics

Upper Division Courses

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.


CM156. Human Genetics. (4) (Same as Microbiology CM156 and Molecular, Cell, and Developmental Biology CM156.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Strongly recommended: Molecular, Cell, and Developmental Biology 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.


CM178. Molecular Genetics. (6) (Same as Biological Chemistry CM178, and Molecular, Cell, and Developmental Biology CM178.) Lecture, five hours. Requisites: Chemistry 153A, 153B, Life Sciences 3, 4. Molecular, Cell, and Developmental Biology 100 or C139 or M140. Basic concepts in modern genetics, with examples from both eukaryotic and prokaryotic systems. Emphasis on use of genetic techniques for addressing fundamental questions in cellular biochemistry. Topics include mutation, repair, recombination, transposition, genetic regulation, developmental genetics, neurogenetics, and immunogenetics. Concurrently scheduled with course CM248. 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. Requisite: 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 a 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. Requisite: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetic 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; discussion, one hour. Requisites: Biostatistics 110A, 110B. Methods of computer-oriented genetic analysis. Topics may include segregation analysis, parametric and nonparametric linkage analysis, quantitative methods, and phylogenetics. Limited to four hours for hands-on computer analysis of genetic data; laboratory reports required. Course complements M207A; students may take either and are encouraged to take both.


236A. Advanced Human Genetics. (4) (Formerly numbered 236B.) Lecture, three hours. Requisites: courses CM248, CM253. Advanced topics in human genetics related to Mendelian disease, molecular genetics, and family studies. Topics include cyto- genetics, genomics, proteomics, positional cloning, bioinformatics, gene therapy, and developmental genetics. Reading materials include original research papers and reviews. Letter grading.

236B. Advanced Human Genetics. (4) Lecture, three hours. Requisites: courses 236A, CM248, CM253. Advanced topics in human genetics related to complex genetic traits and common diseases, with emphasis on biostatistics and mathematical modeling. Reading materials include original research papers and reviews. Letter grading.

C244. 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.

CM223. Advanced Molecular Genetics. (4) Lecture, five hours. Requisite: Life Sciences 151A or 151E. Advanced topics in molecular genetics, with emphasis on prokaryotic and eukaryotic systems. Topics include biochemistry, gene expression, and analysis of DNA; transcription and translation; regulation of gene expression; and molecular aspects of development, differentiation, and cancer. Concurrently scheduled with course CM256. Letter grading.


CM260. Bioinformatics and Genomics. (4) (Same as Chemistry CM260.) Lecture, three hours; discussion, one hour. Genomics and bioinformatics results and methodologies, with emphasis on concepts behind rapid development of these fields. Focus on how to think genomically via case studies, focusing how genomics questions map to computational problems and their solutions. S/U or letter grading.

CM267. Cell Structure, Signaling, and Development. (6) (Same as Biological Chemistry CM267, Chemistry M267, and Molecular, Cell, and Developmental Biology CM223.) Lecture, five hours. Requisites: Chemistry 153A, 153B, 153C. Recommended: course CM153G. Cell cycle regulation; chromosomes and DNA repair; protein trafficking and endocytosis; extracellular matrix, cell to cell communication and signal transduction; cell transformation and apoptosis; molecular aspects of development, differentiation, and cancer. Concurrently scheduled with course CM169. Letter grading.

596. Directed Individual Study and Research. (2 to 12) Tutorial, to be arranged. Individual study or research for graduate students. May be repeated for credit. S/U grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Individual study for M.S. comprehensive examination or Ph.D. qualifying examinations. May be repeated for credit. S/U or letter grading.

598. M.S. Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. Preparation of research data and writing of M.S. thesis. May be repeated for credit. S/U or letter grading.

INDO-EUROPEAN STUDIES
Interdepartmental Program
College of Letters and Science

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Stephanie W. Jamison-Watkins, Ph.D.
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Affiliated Faculty

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Jesse L. Blyoc, Ph.D. (Germanic Languages)
Robert K. Englund, Ph.D. (Near Eastern Languages and Cultures)
Vyacheslav I. Ivanov, Ph.D. (Slavic Languages and Literature)
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Hanns-Peter Schmidt, Ph.D. (Near Eastern Languages and Cultures)

Associate Professor

Christopher M. Stevens, Ph.D. (Germanic Languages)

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 Ph.D. 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, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Indo-European Studies Program offers the Doctor of Philosophy (Ph.D.) degree in Indo-European Studies.

Indo-European Studies
Lower Division Course

M70. Origin of Language. (5) (Same as Communication Studies 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 the brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

Upper Division Courses

131. European Archaeology from the Neolithic to Bronze Age. (4) Lecture, four hours. Survey of European cultures from beginning of food-producing economy in the 7th millennium B.C. to beginning of Bronze Age in the 3rd millennium B.C. P/NP or letter grading.

132. European Archaeology: Bronze Age. (4) Requisite: course 131. Survey of European cultures from about 3000 B.C. to the period of destruction of the Mycenaean culture about 1200 B.C. Aegean area and rest of Europe.

M150. Introduction to Indo-European Linguistics. (5) (Same as Linguistics M150.) Lecture, four hours. Recommended requisite: Linguistics 1 or 20. Indo-European languages and 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; relations with other traditions; literary continuations of mythopoetic material. Concurrently scheduled with course C260. S/U or letter grading.

260. Topics in Indo-European Comparative Grammar for advanced graduate students. S/U or letter grading.

596. Directed Individual Studies. (2 to 8) Tutorial, to be arranged.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged.

599. Research for Ph.D. Dissertation. (2 to 8) Tutorial, to be arranged.

Related Courses

Ancient Near East (Near Eastern Languages)

160A-160B. Introduction to Near Eastern Archaeology

161. Archaeology of Prehistoric Mesopotamia

260. Seminar: Near Eastern Archaeology

261. Practical Field Archaeology

Anthropology

112. Old Stone Age Archaeology

115. Methodology of Archaeology

138. History of Archaeology

Archaeology

259. Fieldwork in Archaeology

Armenian (Near Eastern Languages)

230A-230B. Introduction to Armenian Archaeology

231A-231B-231C. Intermediate Classical Armenian

232A-232B-232C. Advanced Classical Armenian

Classics

165A. Greek Religion

166B. Roman Religion

168. Comparative Mythology

180. Introduction to Classical Linguistics

185. Origins and Nature of English Vocabulary

230A-230B. Language in Ancient Asia Minor

251A. Seminar: Classical Archaeology — Aegean Bronze Age

260. Topics in Ancient Religion

268. Seminar: Comparative Mythology

English

111D. Celtic Mythology

111E. Survey of Medieval Celtic Literature

111F. Celtic Folklore

211. Old English

216A-216B. Old Irish

217A-217B. Medieval Welsh

218. Celtic Linguistics

263. Celtic Literature

German (Germanic Languages)

230. Survey of Theory in Historical Linguistics

231. Gothic

232. Old High German

233. Old Saxon

252. Seminar: Historical and Comparative Germanic Linguistics

Greek (Classics)

240A-240B. History of the Greek Language

242. Greek Dialects and Historical Grammar

243. Mycenaean Greek

C260. Indo-European Comparative Mythology and Poetics. (4) (Formerly numbered 260.) Seminar, three hours. Preparation: ability to read original sources in at least one ancient Indo-European language. Comparison of major Indo-European mythological and poetic traditions and reconstruction of their common sources. Topics include divinities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relations with other traditions; literary continuations of mythopoetic material. Concurrently scheduled with course C160. S/U or letter grading.


596. Directed Individual Studies. (2 to 8) Tutorial, to be arranged.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged.

599. Research for Ph.D. Dissertation. (2 to 8) Tutorial, to be arranged.

599. Research for Ph.D. Dissertation. (2 to 8) Tutorial, to be arranged.
Scope and Objectives

The Department of Information Studies has one of the top-ranked programs of its kind in the country and has developed an international reputation in the areas of information policy, information-seeking behavior, user interface development, archives, preservation, and cataloging. Whether students choose to pursue a master’s degree or a Ph.D., they graduate with a broad understanding of both theory and practice.

Students with master’s degrees go on to careers as librarians, archivists, and information professionals in a variety of organizational settings. The Ph.D. focuses on the preparation of scholars in the field.

For information about the department and programs, see http://is.gseis.ucla.edu/.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Master of Library and Information Science (M.L.I.S.) degree and the Doctoral of Philoso-
204. Electronic Publishing. (4) (Not the same as course 204 prior to Fall Quarter 2001.) Discussion, four hours. Basic understanding of scholarly process and familiarity with World Wide Web and digital libraries assumed. Designed for master's and doctoral students in communication, education, English, information studies, management, and sociology. Survey of current issues in electronic publishing. Topics include history of publishing, digital libraries, scholarly communication, economics, perspectives of publishers, universities, and librarians and information retrieval systems, electronic books; new genres in electronic communication, visions of future. Letter grading.

205. Cyberspace Law and Policy. (4) (Formerly numbered 298.) Lecture, four hours. Legal and policy concerns of networked technologies from international perspective. Emphasis on jurisdictional issues, freedom of expression, intellectual property, privacy, security, equity, and electronic commerce in online environment. S/U or letter grading.


208. Scholarly Communication and Bibliometrics. (4) (Formerly numbered 285.) Lecture, four hours. Preparation: one inferential statistics course. Survey of current theory, method, and empirical studies at intersection of scholarly communication and bibliometrics, seeking to understand flow of ideas through published record, whether in print, electronic form, or other media. Letter grading.


220. Design of Library and Information Services. (4) (Formerly numbered 203.) Lecture, two hours; discussion, two hours. Principles and methods for planning and designing user-driven library and information services. Principles and methods for assessing information needs of designated populations and for designing services that meet those needs. Letter grading.

M225. Latin American Research Resources. (4) (Same as History M265 and Latin American Studies M250.) Discussion, three hours. General and specialized materials of interest to students concerned with Latin American studies. Library research techniques provide experience and competency required for future bibliographic and research sophistication as basis for enhanced research results. S/U or letter grading.

227. Information Services in Culturally Diverse Communities. (4) (Formerly numbered 289.) Lecture, four hours. Issues in provision of information services in a multicultural and multilingual society. Understanding role of information institutions in promoting cultural diversity and preserving ethnic heritage. Letter grading.

228. Measurement and Evaluation of Information Systems and Services. (4) (Formerly numbered 241.) Lecture, two hours; discussion, two hours. Preparation: one research methods course. Recommended: one library automation course. Information systems and evaluation. Information needs of users and users of electronic documents, information retrieval services, document delivery systems, networking, and technical services, including circulation, acquisitions, and document description. S/U or letter grading.

M229B. Africanica Bibliography and Research Methods. (4) (Same as African Studies M229B.) Discussion, four hours. Problems and techniques of research and bibliographic work related to Africana studies. Emphasis on relevant basic and specialized reference materials, using full range of available information resources, including library collections of books, serials, and computerized databases. S/U or letter grading.

M229C. Introduction to Slavic Bibliography. (2) (Same as Slavic M229.) Lecture, two hours. Introduction to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminology and concepts; survey of languages and transliteration systems; acquisition of Slavic and East European library materials; Slavic and East European scholarship in the West; relevant reference sources, archival resources, and research methods; survey of online databases; compilation of bibliographies. S/U grading.

233. Records and Information Resources Management. (4) (Formerly numbered 182.) Lecture, three hours; discussion, one hour. Emphasis on management of information resources in corporate, government, and other organizational settings, including organization 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. Contemporary Children's Literature. (4) (Formerly numbered 253.) Lecture, four hours. Reading interests and correlative types of literature surveyed with reference to growth and development of children. Emphasis on role of the library in responding to needs and abilities of children through individualized reading guidance. S/U or letter grading.

236. Historical Bibliography. (4) (Formerly numbered 260.) Lecture, four hours. Requisites: courses 200, 435. History of letterpress formats (books, broadsides, magazines, newspapers, some music, etc.) as well as materials and methods of production, distribution, and readership in their social, political, and economic context. Emphasis varies but is usually on developments prior to 1800. Attention to historiography of the field, including antiquarian, Anglo-American, and histoire du livre approaches. Letter grading.


240. Management of Digital Records. (4) (Formerly numbered 282.) Lecture, three hours. Introduction to long-term management of digital administrative, information, communications, imaging, or research systems and records. Topics include electronic recordkeeping, enterprise and risk management, systems analysis and design, metadata development, data preservation, and technological standards and policy development. Letter grading.

245. Information Access. (4) (Formerly numbered 220.) Lecture, four hours. Requisites: courses 200, 260. Provides fundamental knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information-seeking behavior of user groups; communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) (Formerly numbered 280.) Lecture, three hours; discussion, one hour. Study of factors and influences, both individual and social, associated with human beings needing, using, and acting on information. Topics include information theory, human information processing, information flow among social and occupational groups, and research on information needs and 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.


258. Legal Information Resources and Libraries. (4) (Formerly numbered 283.) 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.


260. Information Structures. (4) (Formerly numbered 201.) Lecture, four hours; discussion, one hour. Required core course. Introduction to various systems and tools used to organize materials and provide access to them, with emphasis on generic concepts of organization, classification, hierarchy, arrangement, and display of records. Provides background for further studies in cataloging, reference, information retrieval, and database management. Letter grading.

269. Seminar: Information Structures. (4) (Formerly numbered 210.) Seminar, four hours. Requisites: courses 200, 260. One other information structures course. Specialized studies in selected areas of descriptive and bibliographical cataloging, subject vocabularies and classifications, and metadata. May be repeated once. Letter grading.

270. Introduction to Information Technology. (4) (Formerly numbered 204.) Lecture, four hours. Requisite: course 260. Introduction to theories and principles of information technologies. Topics include social issues in information technology and design and development of information systems. Background for further studies in information retrieval and design and maintenance of information systems. S/U or letter grading.

272. Human/Computer Interaction. (4) (Formerly numbered 243.) Lecture, four hours. Preparation: one programming course, one inferential statistics course. Survey of social, behavioral, design, and evaluation issues in human/computer interaction, with readings from several disciplines. Extensive use of technology demonstrations and class discussions. Recommended for students in any discipline involved in design or implementation of information technologies. Letter grading.
274. Database Management Systems. (4) Formerly numbered 245.) Lecture, three hours; laboratory, two hours. Theory and principles, and practical applications of database systems, including data models, retrieval mechanisms, evaluation methods, and storage, efficiency, and security considerations. S/U or letter grading.

275. Development of Cultural Information Sources Using Digital Multimedia. (4) Formerly numbered 208.) Lecture, two hours; laboratory, two hours. Overview of technologies, techniques, and principles underlying multimedia packaging of cultural information resources into digital multimedia such as digital libraries, World Wide Web homepages, and CD-ROMs, as well as user, policy, presentation, motivation, and evaluation considerations. Letter grading.


277. Information Retrieval Systems: User-Centered Designs. (4) Formerly numbered 247.) Lecture, two hours; discussion, two hours. Requisites: courses 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, test processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

278. Social Science Research Methodology for Information Studies. (4) Formerly numbered 249.) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, test processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

279. Seminar: Information Systems. (4) Formerly numbered 249.) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, test processing, measurement 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) Formerly numbered 249.) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, test processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

281. Historical Methodology of Information Studies. (4) Formerly numbered 205.) Lecture, four hours. Role of research in bibliography, librarianship, and information science. Identification and design of research problems. Historical, statistical, analytical, and descriptive techniques. S/U or letter grading.

282. Principles of Information Systems Analysis and Design. (4) Formerly numbered 240.) Discussion, four hours. Theories and principles of special systems development, including determination of requirements, technical design and evaluation, and internal organization. S/U or letter grading.


289. Seminar: Special Issues in Information Studies. (2 to 4) Seminar, two to four hours. Identification, analysis, and discussion of critical intellectual, social, and technological issues facing the profession. Topics may include (but not limited to) library system design, electronic networks, youth at risk, information literacy, historical bibliography, preservation of electronic media, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) (Formerly numbered 272.) Seminar, one to two hours. Designed for Ph.D. students. Emphasis on research methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, one hour; discussion, two hours. Survey of theoretical approaches historically taken in study of information (e.g., library and information science, archival theory, social informatics). Assessment of influence of cognitive disciplines (linguistics, psychology, sociology). Evolution of epistemological accounts of information sciences. Letter grading.

291B. Doctoral Seminar: Research Methods and Design. (4) Seminar, one hour; discussion, two hours. Survey of qualitative, qualitative, and historical research designs. Ethical issues: conceptualization and measurement; indexes, scales, and sampling; experimental, survey, field, and evaluation research; data analysis. Letter grading.

293. Doctoral Seminar: Information Retrieval. (4) Formerly numbered 273.) Seminar, four hours. Designed for Ph.D. students. Intellectual principles for organization of information, including principles for designing effective systems for retrieving information. Also includes system-specific user studies to extent that design of information systems is predicated on their evaluation and use. S/U or letter grading.

294. Doctoral Seminar: Information Policy. (4) Formerly numbered 274.) Seminar, four hours. Designed for Ph.D. students. Examination of social, political, economic influences in development of library and information science and management of information organizations and resources. S/U or letter grading.

295. Doctoral Seminar: Information Seeking. (4) Formerly numbered 275.) Seminar, four hours. Designed for Ph.D. students. Examination of behavioral and cognitive aspects of inquirer’s information needs and uses, including inquirer’s characteristics, information seeking problems, psychological needs, and uses of information and information technologies, and aspects of question negotiation. S/U or letter grading.

297. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person- nel employment as a teaching assistant, associate, or fellow. Teaching apprentice under the guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio Design. (2 to 4) Seminar, two hours. Preparation: completion of information studies core courses. Drawing on literature from many fields, exploration of issues related to professional development and practice, progression of thought, focusing evaluation, mentoring, and reflective practice; students also engage in process of guided portfolio design for M.L.I.S. degree. S/U grading.

411. Library Personnel Management. (4) Formerly numbered 442.) Lecture, four hours. Basic principles of personnel management. Survey of current personnel practices in libraries; emphasis on principles that apply or need to be modified to fit the library setting. S/U or letter grading.

412. Interpersonal Communication Issues in Library Systems. (4) Formerly numbered 491.) Lecture, four hours. Examination of interpersonal communication patterns in library management and staff relations, in resource sharing, and in providing information services. Emphasis on organizational environment and on effective communication styles in decision making, managing conflict, and implementing change. S/U grading.


425. Library Services and Programs for Children. (4) Formerly numbered 465.) Lecture, two hours; discussion, two hours. Theory and practice of service to children in public libraries. Overview of professional library service to children aged 14 and under; provides opportunities for students to gain experience in particular skills needed to provide that service. Letter grading.

426. Library Services and Literature for Youth. (4) Formerly numbered 446.) Lecture, four hours. Overview of literature and programs which are of interest to young adults (seventh grade and above). Discussion of special problems in working with young people and the psychology of the teenager. S/U or letter grading.


438A. Seminar: Advanced Issues in Archival Science — Archival Appraisal. (4) Formerly numbered 438B. 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, political, sociological, and technological movements that can have impact on appraisal methodologies. Letter grading.

438B. Seminar: Advanced Issues in Archival Science — Archival Description and Access Systems. (4) Seminar, four hours. 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.


448. Information Literacy Instruction: Theory and Technique. (4) (Formerly numbered 426.) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of a 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 of teaching use of libraries and information resources. S/U or letter grading.

455. Government Information. (4) (Formerly numbered 473.) Lecture, four hours. Introduction to nature and scope of government information promulgated by the 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) (Formerly numbered 471.) Lecture, four hours. Health sciences information resources and services, management of health sciences information resources and services, health sciences environment and policies, information systems and technology. Letter grading.


463. Information Technology and Libraries. (4) (Formerly numbered 405.) Lecture, four hours. Overview of major components of library automation: circulation control, acquisitions and serials, public access information systems, and data conversion. Relations among various automation entities, including internal library automation, networks and vendors, and 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.

497. Fieldwork in Libraries or Information Organizations. (4 or 8) Fieldwork, to be arranged. Supervised field experience in approved library or information organization. Concentration must be on management or other professional problems of the site. Students spend full time in the field for most of the period. S/U grading.

498. Internship. (4) Discussion, to be arranged. Supervised professional training in a library or information center approved by internship coordinator. Minimum of 120 hours per term. May be repeated twice. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable conference time depending on nature of study or complexity of research. S/U grading.


INSTITUTE OF THE ENVIRONMENT
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Noel Enyedy, Ph.D. (Education)
Laurence C. Smith, Ph.D. (Earth and Space Sciences, Geophysics)

Lecturers
Jeffrey K. Lew, Ph.D. (Atmospheric Sciences)
Travis Longcore (Geography)

Scope and Objectives
The UCLA Institute of the Environment (IoE) offers multidisciplinary academic programs that address the full complexity of current environmental problems. The IoE seeks to enhance the educational experience of students by introducing them to virtually every aspect of the environment. The mission is to explore environmental problems at local, regional, and global scales through innovative, integrative, multidisciplinary teaching, research, and outreach programs.

Los Angeles is often described as “the world in microcosm.” As such, it provides an unparalleled laboratory in which to conduct detailed in-
vestigations of a host of complex socioenvironmental issues. The academic program is supported by faculty from a broad range of disciplines — the natural and social sciences, public policy, engineering, law, business, public health — who are collaborating to develop an interdisciplinary curriculum.

Students are able to augment their classroom experience with participation in the diverse research programs of the IoE, including fieldwork at facilities such as the UCLA Stunt Ranch, Santa Monica Mountains Reserve and the Ocean Discovery Center. These opportunities provide valuable hands-on experience in land, air, and water research.

General Education Cluster

The Institute of the Environment sponsors Environment/General Education Clusters M1A, M1B, M1CW on the global environment. The cluster format is a series of three integrated courses taught 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 environmental topics such as the history of environmental thought, environmental policy, and the impacts of human population. Each course in the sequence carries 5 units of academic credit. At the conclusion of the entire yearlong cluster, students complete a third of their general education course requirements, satisfy their general education seminar requirement, and fulfill the College of Letters and Science Writing II requirement.

Environmental Systems and Society Minor

The Environmental Systems and Society minor is designed for students who wish to augment their major program of study with courses addressing the relationships between environmental science and associated social and political issues. The minor seeks to impart a deeper understanding of environmental systems related to air, land, and water resources, providing a basis for sound professional decision making.

To enter the minor, students must be in good academic standing (2.0 grade-point average) and file a petition at the Institute of the Environment, 1365 Horseshall Hall, (310) 825-5008. All degree requirements, including the specific requirements for this minor, must be fulfilled within 216 units.

Required Lower Division Courses (8 units):
Completion of at least two of the following courses with grades of C or better: Astronomy 3, Atmospheric Sciences 1, 2, 3, Earth and Space Sciences 1, 15, 16, 20, Environment M1A, M1B, Geography 1, 2, 5, Organismic Biology, Ecology, and Evolution 10, 13, 25. Other courses may be applied by petition.

Required Upper Division Courses (20 units):
At least five course from Environment M111, 112, 113, 122, M133, M137, M153, M161.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in any other department or program, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer or substitution of credit for any of the above is subject to institute approval; consult an academic adviser at the institute before enrolling in any courses for the minor.

All minor courses must be taken for a letter grade, with a minimum grade of C (2.0) in each and an overall C average. Successful completion of the minor is indicated on the transcript and diploma.

Environment

Lower Division Courses

M1A-M1B-M1CW. Global Environment. (S-S-S) (Same as GE Clusters M1A-M1B-M1CW.) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Letter grading, M1A-M1B. Multi-disciplinary Perspective I, II. Lecture, three hours; discussion, two hours. Human effects on Earth's ecosystems and social and technological solutions to environmental pollution and overpopulation. History and ecology in lectures; laboratory exercises included in discussions. M1CW. Special Topics. (Formerly numbered M1C.) Seminar, three hours. Enforced requisites: course M1B, and English Composition 3 or 3H. Not open for credit to students with credit for former course M1C. Examination of specialized environmental topics such as air and water, global warming, and feeding Earth's population. Satisfies Letters and Science Writing II requirement.

Upper Division Courses

M111. Earth and Its Environment. (4) (Same as Atmospheric Sciences M100.) 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 technological solutions to global environmental problems using knowledge gained during course. Letter grading.

112. Science of the Environment. (4) (Formerly numbered 161.) Lecture, three hours. Scientific principles of environmental issues, designed for upper division humanities and social sciences students. Use of case-study approach, covering urban and indoor air pollution, coastal and drinking water pollution, population dynamics, biodiversity, stratospheric ozone depletion, and global climate change. Letter grading.

113. Los Angeles Watershed. (4) Lecture, three hours; discussion, one hour. Overview of how varying scales of influence from atmosphere/climate, basin hydrology, runoff, sewage treatment, wetlands ecology and wetlands loss, coastal water circulation, and coastal biogeochemistry affect water resources in Los Angeles. Letter grading.

M114. Soil and Water Conservation. (4) (Same as Geography M107.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Systematic study of processes of and hazards posed by erosion, sedimentation, and pollution and techniques needed to control them. Soil and maintain environmental quality. Scope includes agriculture, forest engineering, mining, and other rural uses of land. P/NP or letter grading.

122. International Integrated Coastal Management. (4) Lecture, three hours. The coast is one of most complex and interesting environments because of interactions among several ecosystems. The coast is often densely populated, with high economic and population growth, therefore socioeconomic conflicts are common. Sewage and industrial pollution, overfishing, and poorly planned development often threaten health of environment. Integrated coastal management (ICM) offers framework for resolving the conflicts in manner that allows sustainable development. Focus on how ICM is being used in the U.S. and around the world to solve pressing ecological and socioeconomic problems. Letter grading.

M127. Soils and Environment. (5) (Same as Geography M127 and Organismic Biology M127.) Lecture, five hours; discussion, one hour; field trips. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL. General treatment of soils and environmental implications: soil development, morphologies, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. Letter grading.

M133. Environmental Sociology. (4) (Same as Sociology M115.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations between social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.

M137. Historical Geography of American Environment. (4) (Same as Geography M137.) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes of natural environment in the 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.

M153. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design CM191.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate technologies, including materials, water, and land. Letter grading.

M161. Global Environment and World Politics. (4) (Formerly numbered 161.) (Same as Political Science M122B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisites: Political Science 20. Political and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

163. Management, Technology, and Environment. (4) Lecture, four hours. Exploration of management of environmental issues by private companies in dynamic context of rapidly changing public expectations; specific focus on industrial ecology framework to evaluate effectiveness of firm-level efforts to moderate environmental impacts of economic activity. Letter grading.

M165. Nuclear Weapons: Critical Decisions. (4) (Same as Honors Collegium M119, Policy Studies M116, and Political Science M139B.) Lecture, three hours. Examination of critical decisions regarding nuclear weapons, starting with President Roosevelt's decision to build atomic bomb and ending with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe. Letter grading.
Related Courses

Anthropology
132. Technology and Environment

Atmospheric Sciences
102. Climate Change and Climate Modeling
103. Physical Oceanography
104. Fundamentals of Air and Water Pollution
130. Circulation of Santa Monica Basin
M140. Environmental Chemistry Laboratory
C160. Remote Sensing

Chemical Engineering
113. Air Pollution Engineering
C118. Multimedia Environmental Assessment
C140. Fundamentals of Aerosol Technology

Chemistry and Biochemistry
103. Environmental Chemistry
M104. Environmental Chemistry Laboratory

Civil and Environmental Engineering
151. Introduction to Water Resources Engineering
153. Introduction to Environmental Engineering Science
154. Introduction to Environmental Aquatic Chemistry
156A. Environmental Chemistry Laboratory
160. Environmental Monitoring and Data Analysis
163. Introduction to Atmospheric Chemistry and Air Pollution
M166. Environmental Microbiology

Earth and Space Sciences
100. Principles of Earth Science
116. Palaeontology
150. Remote Sensing for Earth Sciences
153. Oceans and Atmospheres

Economics
134A. Environmental Economics

Environmental Health Sciences
160. Introduction to Environmental Health

Geography
100. Principles of Geomorphology
101. Coastal Geomorphology
103. Paleoclimatology and Ice-Age Environments
104. Climatology
105. Hydrology
110. Population and Natural Resources
M128. Global Environment and Development: Problems and Issues
131. Environmental Change

Organismic Biology, Ecology, and Evolution
C109. Introduction to Marine Science
116. Conservation Biology
C119. Mathematical Ecology
120. Evolution
122. Ecology
147. Biological Oceanography
C151A. Tropical Ecology

Policy Studies
C115. Environmental and Resource Economics and Policy

Urban Planning
CM128. Global Environment and Development: Problems and Issues
CM189. Environmentalism: Past, Present, and Future

INTERNATIONAL DEVELOPMENT STUDIES
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College of Letters and Science

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Atat Mansor, D.Phil. (History)
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Geoffrey Robinson, Ph.D. (History)
Gi-Wook Shin, Ph.D. (Sociology)
James Tong, Ph.D. (Political Science)
Mary A. Yeager, Ph.D. (History)

Scope and Objectives
The undergraduate International Development Studies major aims to provide a liberal education in relation to the critical issues, experiences, and problems common to developing countries from a global or theme-oriented perspective. It is designed for students who are interested in careers related to international development in academia, public or private agencies, or nonprofit organizations.

Undergraduate International Development Studies B.A.

Preparation for the Major
Required: Economics 1 or 2, one statistics course from Geography M40, Political Science 6, Sociology M18, or Statistics 10, and four courses from four different departments selected from Anthropology 9, Geography 3, 4, 5, History 8A, 8B, 8C, 9A, 9D, 9E, 10A, 10B, 108W, 11B, 21, 22, Political Science 50, Sociology 1.

After satisfying the preparation for the major requirements, students must file a petition in the Undergraduate Advising Office, 10375 Bunche Hall, to declare the International Development Studies major.

Transfer Students
To be admitted as International Development Studies majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introductory economics course, one statistics course, and four courses selected from four of the following five fields: sociocultural anthropologists, cultural or economic geography, world history, comparative politics, and sociology.

The Major
The major consists of five required parts (courses marked with an asterisk have prerequisites):

1. International Development Studies 100A, 100B, and one course from 190A through 190N


Five regional and thematic elective courses, with four to be selected from the regional course lists below and divided equally between two of the world’s developing regions; the fifth course may be selected from either the regional or thematic lists.

Completion of six quarters (24 units) of any modern foreign language (a) at UCLA through level 6 or equivalent, (b) through the UCLA Education Abroad Program or another study abroad program, (c) through transfer of courses taken at another college, which may require certification from the equivalent language department at UCLA, or (d) through a placement test provided by the department of instruction at UCLA. The major requires proficiency through the intermediate level in speaking, reading, and writing of one modern foreign language. All modern foreign languages are allowed since the languages of developed nations (for example, French and German) are often used in the developing world and are useful in development work.

### Honors Program

Majors who have completed International Development Studies 100A and 100B 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 195A, 195B, and 195C, 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 195A, 195B, 195C) and an overall GPA of 3.0.

Honors are awarded to students who complete the major (including courses 195A, 195B, 195C) with a 3.75 GPA and who produce an exceptional thesis.

### International Development Studies

#### Upper Division Courses

100A-100B, Introduction to Development Studies. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: some beginning experience in social sciences at college level. Designed for juniors/seniors. Analysis of determinants of underdevelopment, with focus on impact of colonialism, foreign investment, and trade, and on political economy. Letter grading. 100A. Economic Development and Culture Change. 100B. Political Economy of Development. (Formerly numbered M100B.)


195A-195B-195C. Directed Studies for Honors. (4-4-4) Preparation: 3.5 grade-point average in courses offered for the major, formal application to honors program. Requires: courses 100A, M100B. 195A. Research, discussion, and planning of honors thesis. 195B-195C. Research, preliminary drafting, and final writing of honors thesis. In Progress grading for course 195B (credit to be given only on completion of course 195C).

197. Special Topics in International Development. (4) Seminar, three hours. Preparation: some beginning experience in social sciences at college level. Lecture/seminar format on selected topics in international development. Course either features visiting instructors in field of development studies or allows program’s affiliated faculty to engage specific contemporary issues. May be repeated for credit with topic change.

199. Special Studies in International Development Studies. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Intensive directed research program in which students conduct interdisciplinary research with faculty sponsor from International Development Studies. Eight units may be applied toward major via petition. Letter grading.

### Course List

#### Region 1: Sub-Saharan Africa

**Anthropology**

171. Sub-Saharan Africa

**Art History**

118C. Arts of Sub-Saharan Africa

**Comparative Literature**

169. Continental African Authors

**Geography**

*K22. Wildlife Conservation in Eastern and Southern Africa

135. African Ecology and Development

**History**

176B. History of West Africa since 1800

177. History of Northeast Africa

178A. History of East Africa

178B. History of Central Africa

179B. History of Southern Africa since 1870

**Political Science**

133. International Relations of Sub-Saharan Africa

151A. African Politics: Government and Politics of Africa

151B. African Politics: Political Economy of Africa

151C. African Politics: Special Topics in African Politics

#### Region 2: Middle East and North Africa

**Anthropology**

176. Culture Area of the Middle East

**Geography**

187. Middle East

History

106B. Survey of the Middle East from 1300 to 1700

106C. Survey of the Middle East from 1700 to the Present

114. Topics in Middle Eastern History

**Jewish Studies (Near Eastern Languages)**

142. History and Institutions of State of Israel

**Political Science**

*K12A-12B. International Relations of the Middle East

157. Government and Politics in the Middle East

**Sociology**

*187. Population and Society in the Middle East

#### Region 3: East Asia and East Central Asia

**Anthropology**

175Q. Ideology and Social Change in Contemporary China

175T. Civilizations of East Asia

175V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea

**Art History**

C115B. Advanced Chinese Art

C115E. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906

C115F. Art and Material Culture of Late Imperial China, 906 to 1911

C140A. History of Korean Painting

C140B. History of Korean Ceramics

C140C. History of Korean Buddhist Art

C140D. Selected Topics in Korean Art

**Chinese (East Asian Languages)**

151. Chinese Literature in Translation: Modern Literature

152. Topics in Contemporary Chinese Literature and Culture

**East Asian Languages and Cultures**

163. Buddhism across Boundaries

**Geography**

186. Contemporary China

**History**

182B. Thought and Society in China since 1000

183B. Selected Topics in Chinese History from 1500

183C. History of Women in China, A.D. 1000 to the Present

184. 20th-Century China

**Korean (East Asian Languages)**

150. Korean Literature in Translation: Classical

151. Korean Literature in Translation: Modern

*K180B. Cultural History of Korea, 1260 through 1876

*K180C. Cultural History of Korea since 1876

**Political Science**

*K135. International Relations of China

159A. Government and Politics of China: Chinese Revolution and Age of Mao Zedong

159B. Government and Politics of China: China in Age of Reform

**Sociology**

188. Comparative East Asian Societies before World War II

191. Society and Politics in Korea

192. State and Society in China

193. Asian-Pacific Social Transformation since World War II

#### Region 4: South and Southeast Asia and Pacific Islands

**Anthropology**

175U. Cultures of the Indonesian Archipelago

177. Cultures of the Pacific
Region 6: Latin America and Caribbean Basin

Anthropology
173Q. Latin American Communities
174P. Ethnography of South American Indians

Art History
110G. Art and Politics in the Contemporary Americas: Latin America
C110H. Latin American Art of the 20th Century

Community Health Sciences
132. Health, Disease, and Health Services in Latin America

Comparative Literature
M174. Film and Literature of the Spanish-Speaking World

Geography
181. Mexico, Central America, Caribbean
182A. Spanish South America
182B. Brazil

History
165C. Indians of Colonial Mexico
166. Latin America in the 19th Century
167C. Latin America in the 20th Century: Panama, Colombia, Ecuador, Honduras, El Salvador
168. History of Latin American International Relations
169. Latin American Elites and Society
170C. Issues in Latin American History
171. Mexican Revolution since 1910
173. Modern Brazil

Latin American Studies
197. Interdisciplinary Topics in Latin American Studies

Political Science
130. Politics of Latin American Economic Development
131. Latin American International Relations
154A. Government and Politics in Latin America: States of Middle America
154B. Government and Politics in Latin America: States of South America

Sociology
186. Latin American Societies

Spanish (Spanish and Portuguese)
M161. Film and Literature of the Spanish-Speaking World

Thematic Electives
Anthropology
153. Evolution of Human Societies

Comparative Literature
C173. Postmodernity and the Third World

Economics
*171. Industrial Organizations: Theory and Tactics
*191. International Trade Theory
*192. International Finance

Education
*M108. Sociology of Education
*C191E. Educational Anthropology

Environment
122. International Integrated Coastal Management

Film and Television (Film, Television, and Digital Media)
106C. History of African, Asian, and Latin American Film
112. Film and Social Change

Political Science
118. Political Violence
*123A-123B. International Law
*126. Peace and War
137A-137B. International Relations Theory

Sociology
156. Ethnic and Status Groups
157. Social Stratification
*183. Comparative and Historical Sociology
184. Social Change

Women’s Studies
*M155Q. Women and Social Movements

World Arts and Cultures
100A. Art as Social Action

Scope and Objectives
The undergraduate specialization in International Relations can only be taken jointly with a major in Political Science, and all requirements for the Political Science major must be met by or in addition to meeting the requirements of this program. Students completing the program receive a degree with a major in Political Science and specialization in International Relations. The program is designed to serve the needs of (1) students desiring a general education focused on international affairs and (2) students preparing for graduate work in international affairs, whether in a social science or area study.

The program is also beneficial for (1) students planning careers (in business, law, journalism, or library service) with an international emphasis and (2) those preparing to teach social sciences in the secondary schools. These students should structure their programs primarily to meet the preparation requirements of the professional school or instructional credential of their choice.

Courses in management and administration, and in oral and written communications, ordinarily increase the career options of students in this program.
Undergraduate Study
International Relations Specialization

Preparation for the Specialization

Required: Political Science 20, 50, and two courses from 10, 30, 40; Anthropology 9; Economics 1, 2, 3, 5, or 100; Geography 3 or 5; History 1A, 1B, and 1C, or any three courses from 8A, 8B, 8C, 9A, 9C, 9D, 10A, 10B, 11A, 11B; Sociology 1.

Upper Division Requirements

The Political Science major should be completed as follows: any four upper division political science courses in each of Fields II and IV and two additional courses both in Field I or III.


Completion of the sixth quarter course (or equivalent as prescribed by the language department), with a grade of C or better, of any modern language is also required. French 6, German 6, Spanish 25, and Russian 6 are most frequently offered in fulfillment of this requirement, but also refer to the offerings listed under African Languages, East Asian Languages and Cultures, Germanic Languages, Italian, Near Eastern Languages and Cultures, and Portuguese. Arabic, Chinese, French, German, Japanese, Russian, and Spanish are the languages of widest career utility in international affairs.

All courses must be taken for a letter grade.

Area Focus

Students are advised but not required to concentrate their political science, geography, history, and language courses so as to achieve broad familiarity with one area, such as Africa, East Asia, Europe, Latin America, the Middle East, South Asia, or Southeast Asia.

For further information, contact the political science undergraduate counselor in the program office.

Islamic Studies / 351

Islamic Studies
Interdepartmental Program
College of Letters and Science

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Los Angeles, CA 90095-1487
(310) 206-6571

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To be determined, Ph.D., Chair

Professors

Khaled Abo El Fadl, Ph.D., J.D. (Law)
Edward A. Alperes, Ph.D. (History)
Leonard Binder, Ph.D. (Political Science)
Andras E. Bodroghgi, Ph.D. (Near Eastern Languages and Cultures)
Robert L. Brown, Ph.D. (Art History)
Osman M. Galal, M.D., Ph.D. (Community Health Sciences)
Sondra Hale, Ph.D. (Anthropology, Women’s Studies)
Gail G. Harrison, Ph.D. (Community Health Sciences)
Daniel M. Neuman, Ph.D. (Ethnomusicology)
Ismail K. Poonawala, Ph.D. (Near Eastern Languages and Cultures)
A. Jihad Racy, Ph.D. (Ethnomusicology)
Anthony Reid, Ph.D. (History)
Allen F. Roberts, Ph.D. (World Arts and Cultures)
Teotifio F. Ruz, Ph.D. (History)
Hiromi Lorraine Sakata, Ph.D. (Ethnomusicology)
Steven L. Spiegel, Ph.D. (Political Science)
Hossein Ziai, Ph.D. (Near Eastern Languages and Cultures)

Professors Emeriti

Amin Banani, Ph.D. (Near Eastern Languages and Cultures, History)
Seeker A. Bonebakker, Ph.D. (Near Eastern Languages and Cultures)
Robert I. Burns, S.J., Ph.D. (History)
Herbert A. Davidsson, Ph.D. (Near Eastern Languages and Cultures)
Benjamin A. Elman, Ph.D. (History)
Gerry A. Hale, Ph.D. (Arts)
Richard G. Hovannisian, Ph.D. (History)
Nazir A. Jairizbogy, Ph.D. (Ethnomusicology)
Nikki Keddie, Ph.D. (History)
Alaf Marsot, D.Phil. (History)
Damodor R. SarDesai, Ph.D. (History)
Stanford J. Shaw, Ph.D. (History)
Stanley A. Wolpert, Ph.D. (History)

Associate Professors

Ali Behdad, Ph.D. (Comparative Literature, English)
Irene A. Bierman, Ph.D. (Art History)
Michael D. Cooperston, Ph.D. (Near Eastern Languages and Cultures)
Michael G. Morony, Ph.D. (History)
Aamir R. Mufti, Ph.D. (Comparative Literature)

Assistant Professors

Afaf Marsot, D.Phil. (Comparative Literature, English)
Nikki Keddie, Ph.D. (History)
Habib A. Alwan, Ph.D. (Comparative Literature)

Scope and Objectives

The interdepartmental degree program in Islamic Studies provides opportunities for study of the major languages, literatures, history, culture, and religious traditions of the populations of regions where Islamic-influenced civilizations have had, or continue to have, the greatest impact. Linguistics skills, historical knowledge, and cultural understanding are the foundation on which the disciplinary paradigms and methodologies of both the social sciences and humanities can be applied. Within this broad framework, students are encouraged to construct individualized curricula that will prepare them to carry out cutting-edge dissertation research leading to the Ph.D.

The program for the Master of Arts and Ph.D. degrees in Islamic Studies is designed primarily for students desiring to prepare for an academic career. It may, however, be found useful for students seeking a general education and desiring a special emphasis in this particular area or for those who plan to live and work in this area, whose career will be aided by a knowledge of the people, languages, and institutions. (Such a career might be centered on teaching, research, business, engineering, journalism, librarianship, or government service.) Subject to the limitations of the program, the special course of studies is formulated for candidates according to their experience and requirements.

The undergraduate major in this discipline is called Middle Eastern and North African Studies. For details, see the program by that name later in this section.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Islamic Studies Program offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Islamic Studies. A concurrent degree program (Islamic Studies M.A./Public Health M.P.H.) is also offered.

Islamic Studies
Graduate Course

200. Introduction to Islamic Studies. (4) Seminar, three hours. Introduction to various disciplines and methods employed in study of Islamic histories, cultures, and societies, with special emphasis on methodologies and current theories and how they may be used and combined by Islamic studies students. Content varies each year. Letter grading.

Course List

Anthropology

130. Study of Culture
150. Study of Social Systems
M154P. Gender Systems: North American
M154Q. Gender Systems: Global
156. Comparative Religion
161. Development Anthropology
167. Urban Anthropology
215. Field Training in Archaeology
230Q. Theories of Culture
273. Cultures of the Middle East

Arabic (Near Eastern Languages)

102A-102B-102C. Intermediate Standard Arabic
111A-111B-111C. Elementary Spoken Egyptian Arabic
112A-112B-112C. Advanced Spoken Egyptian Arabic
120. Islamic Texts
130. Classical Arabic Texts
132. Philosophical and Kalam Texts
141. Modern Arabic Literature
ITALIAN
College of Letters and Science

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Massimo Ciavolella, Ph.D., Chair

Professors
Michael J.B. Allen, Ph.D., D.Litt.
Luigi Ballerini, Dottore in Lettere
Franco Bettì, Ph.D.
Massimo Ciavolella, Ph.D.
Lucia Re, Ph.D., Dottore in Lettere
Edward F. Tuttle, Ph.D.

Professors Emeriti
Mirella Cheeseman, Dottore in Legge
Marga Cottino-Jones, Ph.D., Dottore in Lettere
Pier-Maria Pasinetti, Ph.D., Dottore in Lettere

Associate Professor
Thomas J. Harrison, Ph.D.
Lecturers
Maria Grazia Pellegrini, Dottore in Lettere
Elissa Togozzi, Ph.D.

Adjunct Assistant Professor
Marco Codebo, Dottore in Lettere

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 UCLA faculty views 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 Ph.D. (literature specialization). In addition, the department participates extensively in the interdepartmental graduate programs in Romance Linguistics and Literature and Comparative Literature.

Undergraduate Study
Italian B.A.

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.

Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46.

Transfer Students
To be admitted as Italian majors, transfer students 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.

The Major
Required: Thirteen upper division Italian courses, including 100, 103A, 103B, 113, 114A or 114B, 116A or 116B; one course from 118 or 119; one course from 120 or 121; four courses from 114A through 197; 190. One upper division elective course in a field relevant to Italian studies from outside the department may be substituted with consent of the undergraduate adviser.
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 B.A.**

Students with special interests or professional goals may select this 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**

To be admitted as Italian and Special Fields majors, transfer students 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.

**Anthropology Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Anthropology 8 or 9, and 33.

**The Major**

**Required:** Italian 100, 103A or 103B, 190, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; five courses from Anthropology 111, 112, M115A, M115B, C115R, 130, 132, 133Q, 135A, 135B, 135C, 135S, 135T, 138, 139, M140, 141, 143, 150 through M154Q, 161, 182, 183 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, 46; Art History 50 or 51, 54, 57.

**The Major**

**Required:** Italian 100, 103A or 103B, 190, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from Art History M102F, M102G, M102H, 105A through 105D, 105F, 106A through 106D, C109A, 109C, 110A, 110B, 110F, 127, 150D 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, 46, 50A, 50B; Classics 10 or 20, 40 or 41, and Greek 1, 2, 3 or Latin 1, 2, 3, or equivalent.

**The Major**

**Required:** Italian 100, 103A or 103B, 190, 195, and two courses from 113 through 197 selected in consultation with the undergraduate adviser; Greek 100 or Latin 100, one course from Classics 141 through 197 (except 195), and one course 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, 46, 50A, 50B; English Composition 3, English 4W, 10A, 10B, 10C.

**The Major**

**Required:** Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; four courses from English 100, M101A through 119, 121, 140A through M197A 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, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from Film and Television 106A, 106B, 106C, 107, 108, 110A, 110C, 112 through 116, 127, 193A 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, 46; French 1, 2, 3, 4, 5, 6, 12 or 14.

**The Major**

**Required:** Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; one course from French 114A, 114B, 114C, and three courses from 115A through 142 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, 46; one course from History 1A, 1B, 1C, 88B through 88E, 88Q, 88U.

**The Major**

**Required:** Italian 100, 103A or 103B, 190, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from History 100, 102, 119M through 121D, 125A through 127B, 132A, 132B, 135A through 137B selected in consultation with the undergraduate adviser.

**Italian / 353**

**Linguistics Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, Linguistics 20, and six terms of a second Romance language or Latin or equivalent.

**The Major**

**Required:** Italian 100, 103A or 103B, 190 or 222A, 195, 222B, and two courses from 113 through 197 selected in consultation with the undergraduate adviser; Linguistics 103, 110, 120A, 120B, and one course from M146, M150, 165A, 165B, 170 selected in consultation with the undergraduate adviser.

**Music History Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, Music History 2A, 2B, 26A, 26B, 26C. **Recommended:** Music 20A, 20B, 20C.

**The Major**

**Required:** Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; five courses from Music History 126A through 127G, 135A, 135B, 135C, 156 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, 46, 50A, 50B; one course from Philosophy 1 through 31.

**The Major**

**Required:** Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; Philosophy 100A, 100B, 100C, and three courses from M101A through 189 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, 46, 50A, 50B; Political Science 10, 20.

**The Major**

**Required:** Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from Political Science M111A through 113, 116 through 119, 137A, 137B, 139, 153A, 155, 167A 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, M42 or M44 or 46.

**The Major**

**Required:** Italian 100, 103A or 103B, 190, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; three courses from Portuguese 120A.
through 197 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), M42 or M44.

The Major
Required: Italian 100, 103A or 103B, 190, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; one course from Spanish 120A or 120B and three courses from 122 through M161 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, 46, 50A, 50B.

The Major
Required: Italian 100, 103A or 103B, 122, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; one course from Theater 101A, 101B, 101C and five courses from 105, 111A, 111B, 111C, Classics 143A, English 142A, 142B, 142C, 168 selected in consultation with the undergraduate adviser.

Women's Studies Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46; Women's Studies 10.

The Major
Required: Italian 100, 103A or 103B, M158, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; Women's Studies 110A or 110B, and five additional upper division courses from any of the women's studies course lists 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's own programs in Italy and Los Angeles. For additional information, contact the Education Abroad Program, 1333 Hershey Hall, or the Summer Sessions Office, 1147 Murphy Hall.

Honors Program
Majors with an overall grade-point average of 3.25 and a 3.5 GPA or better in Italian are eligible to participate in the honors program. Requirements: Italian 102A, 102B, 102C.

Candidates select three upper division literature courses in which additional readings are required. In the last term of the senior year, they are required to write a thesis on a subject related to one of the three above-mentioned courses. The average for the three courses may not fall below A-. Applications should be made during the last term of the junior year.

Italian Minor
To enter the Italian minor, students must have an overall grade-point average of 2.2 or better. Required Lower Division Courses (12 units): Italian 1, 2, 3, and one course from 42A, 42B, 46, 50A, 50B.

Required Upper Division Courses (20 units):
Italian 100 and four additional Italian courses. All minor courses must be taken for a letter grade, with an overall grade-point average of 2.2 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Italian.

Italian
Lower Division Courses
1. Elementary Italian — Beginning. (4) Lecture, five hours. P/NP or letter grading.

1G. Special Reading Course. (4) Readings, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement. S/U grading.


2G. Special Reading Course. (4) Readings, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement.


8A-8B-8C. Italian Conversation. (2-2-2) Discussion, three hours. Enforced requisite: course 2. Each course may be repeated once for credit. P/NP or letter grading.

9. Intensive Italian. (12) (Formerly numbered 1A.) 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.

42A-42B. Italian through the Ages in English. (5-5) Lecture, three hours; discussion, one hour. P/NP or letter grading. 42A. Holy Roman Empire to Sack of Rome. Survey of Italy's unique contribution to Western civilization in history, politics, philosophy, arts, and popular culture from time of Charlemagne to High Renaissance. 42B. Late Renaissance to Postmodern Period. Influence and effects of baroque sculpture and architecture, Galileo, Enlightenment, unification of Italy, Fascism, terrorism, and cinema.

46. Italian Cinema and Culture in English. (5) Lecture/Screening, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation's prime art form, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, comedy, integration, family networks, and neorealism. P/NP or letter grading.

50A-50B. Masterpieces of Italian Literature in English. (5-5) Lecture, four hours; discussion, one hour. P/NP or letter grading. 50A. Middle Ages to Baroque. Leading philosophical, religious, and sociopolitical issues in Europe, examined in authors such as St. Francis, Dante, Boccaccio, Petrarch, Lorenzo de Medici, Machiavelli, Castiglione, Ariosto, and Tasso. 50B. Enlightenment to 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.

Upper Division Courses
100. Composition and Style. (4) Lecture, three hours. Prerequisite: course 6. Development of writing techniques and proficiency in composition and style, with emphasis on editing for grammar and style. P/NP or letter grading.

102A-102B-102C. Italian Cultural Experience in English. (4-4-4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading. 102A. Roots of Western civilization; social and artistic achievements of communal society; Marco Polo, Dante, Boccaccio, Gott. Rise of Italian merchant class. 102B. Renaissance discovery of human genius; crucial period between Machiavelli and Galileo, leading Italy and Europe to scientific revolution. 102C. Birth of Italian nation from wars of independence to foundation of modern republic, delineated through narrative and cinema in historical context.

103A-103B-103C. Introduction to Italian Literature and Literary Analysis. (4-4-4) Lecture, three hours. Prerequisite: course 100. Italian literature from 1150 to the present, with emphasis on methods of interpreting literary form and meaning in poetry, drama, epic, and novel. P/NP or letter grading.

103A. Knights, Saints, and Lovers. (4) Lecture, three hours. Prerequisite: course 100. Beginning with generation dominated by St. Francis, love poets of court of Frederick II to three classic writers of Italian literature: Dante, Petrarch, and Boccaccio. Renaissance rediscovery of human individuality, dignity, and creativity in works of Pico della Mirandola and Castiglione. P/NP or letter grading.

103C. Romanticism, Politics, and Disillusionment. (4) Lecture, three hours. Requisite: course 100. Great poetry and dialogue: Boccaccio, Leopardi, Romantic poetry. Study of novelistic prose such as Umberto Eco's The Name of the Rose, Pasolini's The Ragazza, Pirandello's The Late Mattia Pascal, and Calvino's The Cosmicomics. P/N or letter grading.

110. Dante in English. (4) Lecture, three hours. Close study of one of world's greatest literary geniuses, particularly of his masterpiece, Divine Comedy. Lectures on the evolution of Dante's work, his comprehensive knowledge of Italian and European culture, and his impact on literature.


118. Age of Enlightenment. (4) Lecture, three hours. Requisite: course 100. Study of philosophical and political prose, satiric poetry, and drama, unveiling birth of modern spirit through writings of Voltaire, Metastasio, Parini, and Alfieri. P/N or letter grading.

119. Italian Ottocento. (4) Lecture, three hours. Requisite: course 100. Study of the Ottocento, the rich period of Italian history and culture from Romanticism to decadentism when philosophical and social issues affected not only the mind but also the heart. Emergence of unique brand of individualism through poetry and prose of Foscolo, Leopardi, Manzoni, Nievo, and Verga. P/N or letter grading.

120. Literature in the 20th Century. (4) Lecture, three hours. Requisite: course 100. Analysis of novel, poetry, and drama of the 20th century in connection with modern thought and culture. Authors may include D'Annunzio, Pirandello, Montale, Pasolini, and Calvino. P/N or letter grading.

121. Literature and Film. (4) Lecture, three hours; discussion, one hour. Comparative study of specific literary works and their translation into film and of different techniques in the two forms of expression. Texts include literary works, screenplays, and works on literary and film theory. P/N or letter grading.

122. Italian Theater. (4) Lecture, three hours; discussion, one hour. Study of dramatic works from the Renaissance to the present and their theatrical presentation. P/N or letter grading.

131. Reading and Reciting. (4) Lecture, three hours. Preparation of oral presentation of literary works. Emphasis on diction, interpretation, and performance of one-act plays as vehicles for perfection of pronunciation, comprehension, and fluency. May be repeated twice for credit.

140. Italian Novella from Boccaccio to Basile. (4) (Formerly numbered M140.) Lecture, three hours. Analysis of development of the Italian novella in its structure, historical context, and folk material. Special emphasis on the way the Italian novella influenced other European literatures. P/N or letter grading.

150. Modern Fiction in Translation. (4) Lecture, three hours. Select issues in 20th-century thought traced in works of international fame, with focus on contemporary developments. Special emphasis on several works such as Umberto Eco's The Name of the Rose, Pasolini's The Ragazza, Pirandello's The Late Mattia Pascal, and Calvino's The Cosmicomics. P/N or letter grading.

151B. Women in Italian Culture. (4) (Same as Women's Studies M151B.) Lecture, three hours; discussion, one hour. Examination of role of women in Italian society through history, politics, literature, film, and art. Italian majors required to read texts in Italian. P/N or letter grading.

190. History of the Italian Language. (4) Lecture, three hours. Main forces which have shaped literary or standard Italian and specific ways in which the 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.

195. Special Field Research. (4) Limited to senior Italian and Special Fields majors. Unscheduled tutorial in which paper (20 to 25 pages) is to be written in either Italian or English which requires students to unify and synthesize their experience of combining two discipline of study. Paper graded by ad hoc committee of faculty from department, with the chair in charge. P/N or letter grading.

197. Variable Topics in Italian Studies. (4) Seminar. Three hours. Seminar focusing on themes and issues outside the uniquely Italian literary topics covered in regular departmental undergraduate courses. May be repeated for credit. P/N or letter grading.


216A. Machiavelli and Renaissance Political Thought. (4) Lecture, three hours. S/U or letter grading.

216B. Ariosto and Renaissance Epic. (4) Lecture, three hours. S/U or letter grading.

216C. Tasso. (4) Lecture, three hours. S/U or letter grading.

216D. Renaissance Theater. (4) Lecture, three hours. S/U or letter grading.

216E. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Benvenuto. S/U or letter grading.


218B. Alfieri. (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. 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, or Nievo. 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-depth exploration of some major works that have made contemporary Italian literature famous throughout the world, with special emphasis on study of formalistic modes adopted by neo-avant-garde. S/U or letter grading.

221E. Pirandello and Contemporary Theater. (4) Lecture, three hours. Thorough reading of theatrical texts, accompanied by an analysis of how the plays have been realized on stage by important directors such as Strehi, Ronconi, and the playwrights/actors themselves. Emphasis on realistic implications of the theatrical performance. S/U or letter grading.
224. Italo-Romance Dialectology. (Formerly numbered 222C.) Lecture, three hours. Differentiation of late spoken Latin into myriad varieties spoken in Italy. Credit may not be applied toward a major in Romance literature. S/U grading.

225. Cultural History of Italian Language. (Formerly numbered 222D.) Lecture, three hours. Historical survey of development of Italian language from late Latin to main Romance dialects. Credit may not be applied toward a major in Romance literature. S/U grading.


250A-250D. Seminars: Dante. (4 each) Seminar, three hours. Required of all major students. May be taken independently for credit. S/U or letter grading.

252. Seminar: Boccaccio. (4) Seminar, three hours.

253A-253B-253C. Seminars: Chivalric Poetry in Italy. (4-4-4) Seminar, three hours. Relationship between the genre and its French medieval sources, with study of its evolution in Italy through Pulci, Boiardo, Ariosto, and Tasso.

254. Seminar: Machiavelli. (4) Seminar, three hours.

255A-255B. Seminars: Baroque. (4-4) Seminar, three hours.

256A-256B. Seminars: 18th Century. (4-4) Seminar, three hours.

257A-257B. Seminars: Romanticism. (4-4) Seminar, three hours.

258A-258B. Seminars: Contemporary Italian Literature. (4-4) Seminar, three hours.

260A. Alternative Perspectives in Italian Culture: Studies of Italian Tradition in Italian Literature. (4) Formerly numbered M260A.) Lecture, three hours. Open to undergraduates with consent of instructor. The conspicuous diversity animating Italian society articulated through class, gender, and ethnolinguistic groups to be studied across a range of texts, some selected from the literary canon, but others purely oral (tales, songs, proverbs, curses and cures, secular and ritual drama).

260B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or representing women's conditions in either medieval/Renaissance or contemporary time. S/U or letter grading.

260C. Studies in Italian Cinema. (4) Lecture, three hours. Designed for graduate students. Italian cinema compared with other European countries' and Hollywood's cinema, with focus on its development from its origins through Fascist times, to neo-fascism, its legacy, different genres, and contemporary scene. S/U or letter grading.

270. Problems and Methods in Teaching Italian. (4) Lecture, two hours.

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

298. Variable Topics in Italian Studies. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Seminar focusing on themes and issues of the uniquely Italian literature topics covered in regular departmental graduate courses.

299. Research Resources for European Studies. (2) Same as French M299, German M299, Informations M299, Slavic M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. S/U grading.

307. Questione della lingua, (Formerly numbered 299.) Lecture, two hours.

356/Labor and Workplace Studies

Scope and Objectives

The Labor and Workplace Studies minor offers an opportunity to learn about the workplace and the social, political, and economic forces that influence it. The program emphasizes the institutions of the labor market, public policy, employment relations, unions, and working class movements. It also explores issues of race, class, and gender in the workplace. The interdisciplinary approach gives students exposure to disciplines in addition to their own majors; students should plan to take courses from multiple departments, as disciplinary breadth is encouraged.

The program is intended for students who wish to gain in-depth understanding of aspects of the broad array of issues related to labor and the workplace. Students are encouraged to take courses in a variety of disciplines.
Latin American Studies

Interdepartmental Program
College of Letters and Science

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http://www.international.ucla.edu/IAS/

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Allen W. Johnson, Ph.D.
Nancy E. Levine, Ph.D.
Raymond A. Rocco, Ph.D.

Affiliated Faculty
Professors
Paul R. Abramson, Ph.D. (Psychology)
Rosina M. Becerra, Ph.D. (Social Welfare)
Adriana J. Bergero, Ph.D. (Spanish and Portuguese)
Carole H. Browner, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
Donald G. Bush, Ph.D. (Organismic Biology, Ecology, and Evolution)
Alfonso F. Cardenas, Ph.D. (Computer Science)
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Edwin L. Cooper, Ph.D. (Neurobiology)
José de la Torre, D.B.A. (Management)
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Sebastian Edwards, Ph.D. (Economics, Management)
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J. Randall Johnson, Ph.D. (Spanish and Portuguese)
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Pamela L. Munro, Ph.D. (Applied Linguistics and Teaching English as a Second Language, Linguistics)

Latin American Studies

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Pamela L. Munro, Ph.D. (Applied Linguistics and Teaching English as a Second Language, Linguistics)
Students must complete all preparation courses with a C (2.0) in each course; the courses are applicable toward the Letters and Science lower division general education requirements.

**Foreign Language Requirement**

Language requirements are uniform for all students in the major regardless of core area. Proficiency in two languages equivalent to (1) Spanish 25 and Portuguese 3 or (2) Portuguese 25 and Spanish 5 is required. In lieu of Portuguese 1, 2, and 3, students may take Portuguese 102A and 102B which are designed for those with a background in Spanish. An indigenous language of Latin America (i.e., Quechua) may be substituted for the minor language.

**Transfer Students**

To be admitted as Latin American Studies majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: advanced Spanish and one year of elementary Portuguese, or advanced Portuguese and intermediate Spanish, two Latin American history courses, and additional coursework in the area of concentration.

**Course Limitations**

Students may not take more than 8 units of Latin American Studies 199 for letter-grade credit nor more than 8 units in any single term. No course taken on a Passed/Not Passed basis may be applied toward the B.A. degree requirements. In order to register in a 199 course, students must have advanced junior standing and an overall grade-point average of 3.0, or senior standing.

**Double Majors**

Through judicious use of electives, students may find it possible to obtain the B.A. degree with two majors (e.g., Latin American Studies and History). Interested students who have achieved junior standing should consult the undergraduate advisers of both departments involved, initiating the appropriate petition with the student affairs counselor in Latin American Studies.

**Study in Latin America**

Students are encouraged to spend up to one year in Latin America either (1) to study with an education abroad program, (2) to study in Latin American universities, (3) to conduct research, or (4) to complete an internship in an international or development agency. Full credit is granted according to the individual programs arranged in consultation with the undergraduate adviser. For information on studying in Mexico, Costa Rica, Chile, or Brazil, contact the Education Abroad Program, 1105 Hershey Hall, (310) 794-9820.

**Core Areas for the Major**

Students select one of three core areas as the focus of their major: arts and humanities, social sciences, or ecology and environment. Requirements for each core area are listed below.

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**Core I: Arts and Humanities**

**Preparation**

**Required:** Two courses from History 8A, 8B, 8C; Latin American Studies 99 (or 197 with department consent); Spanish and Portuguese M44; Art History 55B or Ethnomusicology 91K and World Arts and Cultures 6 or 8.

**Core Area**

**Required:** Ten upper division courses from the approved list of Latin American courses distributed as follows:

1. **Core Concentration:** Five courses as listed below in either the literature and folklore field or the linguistics field selected from Portuguese or Spanish, or in the fine arts field selected from art history or ethnomusicology. Only one course from the electives list within the arts and humanities core area may be applied toward the core concentration.
2. **Theory and Methods:** One course from theory and methods within the core concentration field.
3. **Internal Breadth:** Four additional courses from the arts and humanities core area but outside the core concentration field. No more than two of these may be electives.

**External Breadth**

**Required:** From the approved list, six upper division courses outside the arts and humanities core area distributed as follows: at least two courses in social sciences (e.g., history) and two courses in ecology and environment (e.g., geography). The two additional courses required may be from either social sciences or ecology and environment. No more than three external breadth courses may be electives.

**Approved Undergraduate Courses**

Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

(1) **Literature and Folklore Field**

**History**

169. Latin American Aelite

**Portuguese (Spanish and Portuguese)**

130A-130B. Brazilian Literature and Identity: Introduction

C132. 19th-Century Brazilian Literature and Culture

C133. Machado de Assis

C134. Brazilian Modernism

C135. 20th-Century Brazilian Literature

Braziliand Film and Literature

**Spanish (Spanish and Portuguese)**

120A-120B. Literature in the Hispanic World

137. Literature of Colonial Spanish America

139. Romanticism and Realism in Spanish-American Literature

140. Modernismo

142. 20th-Century Spanish-American Literature: Fiction and the Essay
143. 20th-Century Spanish-American Literature: Poetry and Drama
144. Mexican Literature
149. Folk Literature of the Hispanic World
151B. Women in Hispanic Literature; Spanish-American Women's Writing
M161. Film and Literature of the Spanish-Speaking World
170. Senior Honors Tutorial
197A. Studies in Hispanic Culture and Civilization

Theory and Methods
Portuguese (Spanish and Portuguese)
199. Special Studies
Spanish (Spanish and Portuguese)
*119A. Introduction to Study of Literature: Prose
*119B. Introduction to Study of Literature: Poetry
*119C. Introduction to Study of Literature: Drama
199. Special Studies

World Arts and Cultures
122. Introduction to Folklore

(2) Fine Arts Field

History

*110F. Selected Topics in Modern Art: Latin America
*110G. Art and Politics in the Contemporary Americas: Latin America
*C110H. Latin American Art of the 20th Century
C117A. Pre-Columbian Art of Mexico
C117B. Pre-Columbian Art of the Maya
C117C. Pre-Columbian Art of the Andes
C117D. Aztec Art
118A. Arts of Oceania
Ethnomusicology
107. South American Indian Music
M108A-108B. Music of Latin America
113. Music of Brazil
M115. Musical Aesthetics in Los Angeles
M131. Development of Latin Jazz
191K. Advanced Music of Mexico
Film and Television (Film, Television, and Digital Media)
106C. History of African, Asian, and Latin American Film

World Arts and Cultures
108B. Dance in Latin American Cultures
120. Selected Topics in Cultural Studies: Latin America
M125A, M125B, M125C. Beyond the Mexican Mural
C139. Afro-Caribbean Ritual Arts: Vodou and Santeria
*CM140. Women Healers, Ritual, and Transformation: Latin America

Theory and Methods

Art History
*199. Special Studies in Art
Ethnomusicology
*180. Analysis of Traditional Music
*190. Study of Ethnomusicology
*199E. Special Studies in Ethnomusicology
Film and Television (Film, Television, and Digital Media)
199. Special Studies in Film and Television

World Arts and Cultures
*199. Special Studies in World Arts and Cultures

(3) Linguistics Field
Portuguese (Spanish and Portuguese)
100A. Phonology and Morphology
*100B. Syntax
*118A. History of Portuguese and Spanish: Phonology
*118B. History of Portuguese and Spanish: Morphology and Syntax
Spanish (Spanish and Portuguese)
*100A. Introduction to Study of Spanish Grammar: Phonology and Morphology
*100B. Introduction to Study of Spanish Grammar: Syntax
*115. Applied Linguistics
*118A. History of Portuguese and Spanish: Phonology
*118B. History of Portuguese and Spanish: Morphology and Syntax
*119A. Introduction to Study of Literature: Prose
*119B. Introduction to Study of Literature: Poetry
*119C. Introduction to Study of Literature: Drama
*170. Senior Honors Tutorial

Theory and Methods
Linguistics
*103. Introduction to General Phonetics
*110. Introduction to Historical Linguistics
*120A. Phonology I
*120B. Syntax I
M146. Language in Culture
*165A. Phonology II
*165B. Syntax II
*170. Language and Society: Introduction to Sociolinguistics
*199. Special Studies in Linguistics
Portuguese (Spanish and Portuguese)
*199. Special Studies
Spanish (Spanish and Portuguese)
*199. Special Studies

(4) Arts and Humanities Electives

Ethnomusicology
*110A-M110B. African American Musical Heritage Program
Film and Television (Film, Television, and Digital Media)
112. Film and Social Change

Latin American Studies
197. Interdisciplinary Topics in Latin American Studies
199. Special Studies in Latin American Studies
Theater
M100C. Origins and Evolution of Chicano Theater

World Arts and Cultures
*131. Folk Art and Aesthetics

Core II: Social Sciences
Preparation

Required: Two courses from History 8A, 8B, 8C; Latin American Studies 99 (or 197 with department consent); Economics 1 and 2, or 100; Sociology M18 or Statistics 10.

Core Area

Required: Ten upper division courses from the approved list of Latin American courses distributed as follows:

1. Core Concentration: Five courses as listed below in one of the five fields (anthropology and sociology or economics or geography or history or political science). Only one course from the electives list within the social sciences core area may be applied toward the core concentration

2. Theory and Methods: One course from theory and methods within the core concentration field

3. Internal Breadth: Four additional courses from the social sciences core area but outside the core concentration field. No more than two of these may be electives

External Breadth

Required: From the approved list, six upper division courses outside the social sciences core area distributed as follows: at least two courses in arts and humanities (e.g., fine arts) and two courses in ecology and environment (e.g., geography). The two additional courses required may be from either arts and humanities or ecology and environment. No more than three external breadth courses may be electives.

Approved Undergraduate Courses

Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

(1) Anthropology and Sociology Field

Anthropology
114P. Ancient Civilizations of Western Middle America (Nahua Sphere)
114Q. Ancient Civilizations of Eastern Middle America (Maya Sphere)
114R. Ancient Civilizations of Andean South America
173Q. Latin American Communities
174P. Ethnography of South American Indians

Sociology
186. Latin American Societies

Theory and Methods

Anthropology
C114S. Comparative Study of Ancient States: Latin America
*115P. Archaeological Field Training
*C115R. Strategy of Archaeology
*136Q. Laboratory for Naturalistic Observations: Developing Skills and Techniques
*138. Methods and Techniques of Ethnohistory
*139. Field Methods in Cultural Anthropology
M140. Language in Culture
*180. Quantitative Methods in Anthropology
*M186. Models and Modeling in Anthropology
*199. Special Studies in Anthropology

Sociology
*104. Introduction to Sociological Research Methods
*C112. Introduction to Mathematical Sociology
*199. Special Studies

(2) Economics Field

Economics
*110. Economic Problems of Underdeveloped Countries
*111. Theories of Economic Growth and Development
*112. Policies for Economic Development
*190. International Economics
*191. International Trade Theory
*192. International Finance
Theory and Methods

Economics
*M135. Economic Models of Public Choice
*M188C-188Z. Upper Division Research Seminars: Applications of Economic Theory
*199. Special Studies in Economics

Management
*197. Special Topics in Management

(3) History Field

History
165A. Early Latin America
165C. Indians of Colonial Mexico
166. Latin America in the 19th Century
167A-167D. Latin America in the 20th Century
168. History of Latin American International Relations
169. Latin American Elitology
170A. Latin American Cultural History
170B. Classic Travel Accounts of Latin America since 1735
170C. Issues in Latin American History
171. Mexican Revolution since 1910
172. History of Argentina
173. Modern Brazil
174. Brazil and Atlantic World, 1500 to 1822
197E. Undergraduate Seminar: Latin America

Theory and Methods

History
197E. Undergraduate Seminar: Latin America
*199. Special Studies in History

Information Studies

M111C. Ethnic Groups and Their Bibliographies: Latin American History and Culture

(4) Political Science Field

Political Science
130. Politics of Latin American Economic Development
131. Latin American International Relations
*139. Special Studies in International Relations: Latin America
*148. Special Topics in American Government and Politics
154A-154B. Government and Politics in Latin America
*169. Special Studies in Comparative Politics: Latin America
199. Readings in Political Science: Latin America

Theory and Methods

Political Science
*102. Statistical Analysis of Political Data
*104A-104B. Introduction to Survey Research
*M105. Economic Models of Public Choice
*113. Problems in 20th-Century Political Theory
*119. Special Studies in Political Theory
*131C-131B. International Relations Theory
*168. Comparative Political Analysis

(5) Geography Field

Geography
121. Conservation of Resources: Underdeveloped World
*126. Geography of Extinction
*M128. Global Environment and Development: Problems and Issues
131. Cultural Geography of the Modern World
*142. Population Geography
181. Mexico, Central America, Caribbean
182A. Spanish South America
182B. Brazil
*199. Special Studies

Theory and Methods

Geography
*M171. Introduction to Spatial Statistics

(6) Social Sciences Electives

Anthropology
*153. Evolution of Human Societies
*M154Q. Gender Systems: Global
*167. Urban Anthropology
*M168. Culture, Illness, and Healing

Chicana and Chicano Studies
*142. Mesoamerican Literatures
*169. Representations of Indigenous Peoples in the Americas

Economics
*120. Introduction to Urban and Regional Economics
*180. Comparative Systems: Transformation of Socialist Economies

Geography
*108. World Vegetation
*111. Forest Ecosystems
*M115. Environmentalism: Past, Present, and Future
*129. Seminar: Environmental Studies
*140. Political Geography

History
M159A, M159B. History of the Chicano Peoples

Latin American Studies
197. Interdisciplinary Topics in Latin American Studies
199. Special Studies in Latin American Studies

Political Science
*M122B. Global Environment and World Politics
*124. International Political Economy
144A. Ethnic Politics: Chicano/Latino Politics
*167A. Ideology and Development in World Politics
*167B. Comparative Development and Administration
*168. Comparative Political Analysis

Sociology
*116. Social Demography
*154. Race and Ethnicity: International Perspectives
*157. Social Stratification
*182. Political Sociology
184. Social Change

Core III: Ecology and Environment Preparation

Required: Two courses from History 8A, 8B, 8C; Latin American Studies 99; Geography 5; Statistics 10.

Core Area

Required: Ten upper division courses from the approved list of Latin American courses distributed as follows:

1. Core Concentration: Five courses as listed below in geography. Only one course from the electives list within the ecology and environment core area may be applied toward the core concentration

2. Theory and Methods: One course from theory and methods within the core concentration field

3. Internal Breadth: Four additional courses from the ecology and environment core area to be selected from theory and methods core courses or electives

External Breadth

Required: From the approved list, six upper division courses outside the ecology and environment core area distributed as follows: at least two courses in arts and humanities (e.g., fine arts) and two courses in social sciences (e.g., history). The two additional courses required may be from either arts and humanities or social sciences. No more than three external breadth courses may be electives.

Approved Undergraduate Courses

Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

Community Health Sciences
132. Health, Disease, and Health Services in Latin America

Geography
121. Conservation of Resources: Underdeveloped World
*M128. Global Environment and Development: Problems and Issues
133. Cultural Geography of the Modern World
*142. Population Geography
181. Mexico, Central America, Caribbean
182A. Spanish South America
182B. Brazil
*199. Special Studies

Theory and Methods

Anthropology
*153. Evolution of Human Societies
*167. Urban Anthropology
M168. Culture, Illness, and Healing

Community Health Sciences
*130. Nutrition and Health

Economics
*120. Introduction to Urban and Regional Economics

Geography
*108. World Vegetation
*111. Forest Ecosystems
*M115. Environmentalism: Past, Present, and Future
*M128. Global Environment and Development: Problems and Issues
*129. Seminar: Environmental Studies
*132. Food, Environment, and Agriculture
*140. Political Geography

Latin American Studies
197. Interdisciplinary Topics in Latin American Studies
199. Special Studies in Latin American Studies

Sociology
*116. Social Demography

Theory and Methods

Anthropology
*153. Evolution of Human Societies
*167. Urban Anthropology

Geography
*M115. Environmentalism: Past, Present, and Future
*M128. Global Environment and Development: Problems and Issues
*129. Seminar: Environmental Studies

Sociology
*116. Social Demography
Latin American Studies
Minor
The interdisciplinary program leading to the Latin American Studies minor allows students to choose from a broad range of course offerings in various departments to develop professional and methodological skills with area expertise.

To enter the minor, students must have an overall grade-point average of 2.0 or better and have completed 45 units. For further information, contact Carolyn Ramirez-La Faso at (310) 206-6571.

Required Lower Division Courses (8 units): History 8A or 8B or 8C or Latin American Studies 99, Spanish 25 or Portuguese 25.

Required Upper Division Courses (20 units): Five courses selected from the approved list of Latin American studies courses in at least two of the following fields: (1) arts and humanities (art history, ethnomusicology, folklore, Spanish and Portuguese), (2) ecology and environment (geography, public health), (3) social sciences (anthropology, economics, history, political science, sociology). If the social sciences field is selected, at least two courses must be taken in that field. No more than 4 units of course 199 may be applied toward the minor, and at least three upper division courses (12 units) must be taken in residence at UCLA.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) degree in Latin American Studies.


Latin American Studies
Lower Division Course
99. Introduction to Latin American Problems. (4) Limited to 15 students. Interdisciplinary seminar for lower division students. May be repeated for credit with topic change.

Upper Division Courses
197. Interdisciplinary Topics in Latin American Studies. (4) Lecture, two hours; discussion, two hours. Advanced interdisciplinary course for juniors/seniors. May be repeated for credit with topic change. P/NP or letter grading.

199. Special Studies in Latin American Studies. (4 or 8) Limited to juniors/seniors. Intensive directed research program in which students conduct interdisciplinary research or complete internship with an interdepartmental agency or program dealing with Latin American Faculty sponsorship and written reports required.

Graduate Courses
M200. Latin American Research Resources. (4) (Same as History M265 and Information Studies M225.) Seminar, three hours. General and specialized materials in fields concerned with Latin American studies. Library research techniques provide experience and competency required for future bibliographic and research sophistication as basis for enhanced research results.

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 core course.

M250A. Indians of South America. (4) (Same as Anthropology M272.) Lecture, three hours. Survey of literature and research topics related to Indian cultures of South America. May be repeated for credit.

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.

M260. Health and Culture in the Americas. (4) (Same as Anthropology M266 and Community Health Sciences M260.) Lecture, three hours; discussion, one hour. Preparation: bilingual skills (English/Spanish) for Spanish discussion section. Recommended requisite: Community Health Sciences 132. Health issues throughout the Americas, especially indigenous/Mestizo Latin American populations. Holistic approach covering politics, economics, history, geography, human rights, maternal/child health, culture. 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 a variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audio tape. 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 an interdisciplinary nature. 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 M.A. Comprehensive Examination. (4) Tutorial, to be arranged. Ordinarily taken only during term in which student is being examined. S/U grading.

598. Research and Preparation of M.A. Thesis. (4) Tutorial, to be arranged. Only 4 units may be applied toward minimum graduate course requirement. S/U grading.

Course List
Approved Graduate Courses
Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America. Refer to the Latin American Studies undergraduate section for the lists of approved undergraduate courses.

Fine Arts
Art History
*201. Topics in Historiography of Art History C218A. Pre-Columbian Art of Mexico C218B. Pre-Columbian Art of the Maya C218C. Pre-Columbian Art of the Andes C218D. Aztec Art 219B. Pre-Columbian Art 220. Oceanic, Pre-Columbian, African, and Native North American Art C254. Latin American Art of the 20th Century 596. Directed Individual Study or Research

Ethnomusicology

Film and Television (Film, Television, and Digital Media)
276. Seminar: Non-Western Films — Mexican Cinema *298A-298B. Special Studies in Film and Television Theater *210. Topics in World Theater and Drama

World Arts and Cultures
*281A-281B. Advanced Studies in Dance Ethnology

Languages
Indigenous Languages of the Americas (Linguistics)
*18A-18B-18C. Elementary Quechua
Portuguese (Spanish and Portuguese)
255. Seminar: Political Change
244. Latin American Politics
250B. Interdisciplinary Seminar: Latin American Studies
250C. Interdisciplinary Topics in Latin American Studies
260. Health and Culture in the Americas
264. Latin America: Traditional Medicine, Shamanism, and Folk Illness

Political Science
220. International Relations Theory
221. Contending Perspectives on International Political Economy
231. International Political Economy I
239. Selected Topics in International Relations
240A-240B. Seminars: Comparative Politics
244. Latin American Politics
255. Seminar: Political Change
259. Selected Topics in Comparative Politics

Portuguese (Spanish and Portuguese)
M249. Folk Literature of the Spanish and Portuguese Worlds

Sociology
231. Race and Ethnicity: International Perspectives
235. Theories of Ethnicity
236. Social Structure and Economic Change: Historical and Comparative Perspectives
278. Sociology of Latin America

Spanish (Spanish and Portuguese)
M249. Folk Literature of the Spanish and Portuguese Worlds

*286A-286B. Studies in Hispanic Folk Literature

**Admissions**

Peter Arenella, J.D.
Stephan M. Bainbridge, M.S., J.D.
Steven A. Bank, J.D.
Stuart Banner, J.D.
Paul B. Bergman, J.D.
David A. Binder, LL.B.
Gary L. Blasi, M.A.
Grace Ganz Blumberg, J.D., LL.M.
Taimie L. Bryant, Ph.D., J.D.
Daniel J. Bussett, J.D.
Devin Carbado, J.D.
Ann E. Carlsson, J.D.
Kimberle W. Crenshaw, J.D., LL.M.
Scott L. Cummings, J.D., Acting
David Dolinko, J.D., Ph.D.
Sharon Dolovich, Ph.D., J.D., Acting
Victor Fleischer, J.D., Acting
Susan Fletcher French, J.D.
Jody Freeman, LL.B., LL.M., S.J.D.
Stephen Gardbaum, C.P.E., M.Sc., M.Phil., J.D.
Carole E. Goldberg, J.D.
Robert D. Goldstein, M.Ed., J.D.
Laura E. Gómez, M.A., J.D., Ph.D.
Kenneth W. Graham, Jr., J.D.
Joel F. Handler, J.D. (Richard C. Maxwell Professor of Law)
Cheryl I. Harris, J.D.
Jerry Kang, J.D.
Kenneth Kee, J.D.
Russell Korobkin, J.D.
Gia B. Lee, M.P.P., J.D., Acting
William L. Lester, LL.B., J.S.M., J.S.D.
Christine A. Littleton, J.D.
Lynn M. LoPucki, J.D., LL.M. (Security Pacific Bank Professor)
Daniel H. Lowenstein, LL.B.
Timothy Malloy, J.D., Acting
Albert J. Moore, J.D.
Stephen R. Munzer, B.Phil., J.D.
Grant S. Nelson, J.D.
Frances E. Olsen, J.D., S.J.D.
Randall Peerenboom, M.A., J.D., Ph.D., Acting
Susan Westerberg Prager, M.A., J.D. (Argy and Frances Fearing Miller Professor of Law)
Kal Raustiala, Ph.D., J.D., Acting
Gary Rowe, M.A., J.D., Acting
Richard H. Sander, M.A., Ph.D., J.D.
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David Sklansky, J.D.
Clyde S. Spillenger, J.D., M.A., M.Phil.
Kirk J. Stark, J.D.
Richard H. Steinberg, J.D., Ph.D.
Lynn A. Stout, M.P.A., J.D.
Jonathan D. Varat, J.D.
Eugene Volokh, J.D.
John S. Wiley, M.A., J.D.
Adam Winkler, M.A., J.D., Acting
Stephen C. Yezzi, M.A., J.D. (David G. and Dallas P. Price Professor of Law)
Jonathan Zasloff, J.D., M.Phil, M.A., Acting
Eric M. Zolt, M.B.A., J.D.

**Professors Emeriti**

Benjamin Aaron, LL.B.
Michael R. Asimow, LL.B.
Kenneth L. Karst, LL.B. (David G. and Dallas P. Price Professor Emeritus of Law)
William A. Klein, LL.B. (Richard C. Maxwell Professor Emeritus of Law)
William M. McConney, Jr., LL.B.
Herbert Morris, LL.B., D.Phil.
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**Lecturers**

Michelle M. Ahn, J.D.
Stuart Biegel, J.D.
George S. Cardona, J.D.
Brian Cartwright, J.D., Ph.D.
Patrick Del Duca, D.E.A., J.D., Ph.D., dott di giur
Steven K. Derian, M.A., J.D.
Leanne J. Fisher, J.D.

Law / 363

Law

School of Law

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The School of Law, one of two academic units at UCLA that operate on a semester (rather than quarter) system, offers a three-year curriculum leading to the J.D. degree. The school is accredited by the California Committee of Bar Examiners, is a member of the Association of American Law Schools, and is on the approved list of the American Bar Association. Graduates of the school are qualified to apply for admission to practice in any state in the U.S.

The school 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. Students do not undertake a specific major but have the opportunity to enroll in a wide variety of courses dealing with various legal fields.

**Professional Study**

The School of Law offers the Juris Doctor (J.D.), Doctor of Juridical Science (S.J.D.), and Master of Laws (LL.M.) degrees.

Law

Lower Division Course

88. Lower Division Seminar: Special Topics in Law. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Subject A requirement. Variable topics seminar which examines specific issues or problems and that professionals in law approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES
College of Letters and Science

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Sue-Ellen Case, Ph.D. (Theater)
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Christopher Loopy, Ph.D. (English)
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Robert A. Hening, Ph.D. (Political Science)
Vernon Rosario, M.D., Ph.D.
Roni Sanlo, Ed.D. (Education)

Scope and Objectives

Although lesbian, gay, bisexual, and transgender studies has only recently found a place in university curricula, the field actually represents the intersection of two traditions that have existed for thousands of years. The better known is the learned tradition, which, at least since the end of the ancient world, has been overwhelmingly hostile. Medieval theology condemned the sodomite, nineteenth-century medicine pathologized the invert, and until very recently psychiatry felt called on to “cure” the homosexual. For at least as long, however, women and men attracted to others of their own sex have kept alive another affirmative tradition, a knowledge of their past that sustained them, often in the face of overwhelming official hostility. The guests at Plato’s Symposium looked back to Achillies and Patroclus; women-loving-women in early-twentieth-century Paris remembered Sappho.

After the birth of the modern gay liberation movement in 1969, this underground knowledge came out of the closet and found a public voice sufficiently strong to mount a sustained challenge to the official teachings concerning minority sexualities and genders. This challenge led to a dramatic increase in research on same-sex desire and cross-gender phenomena, most of it the work of scholars without academic affiliations. Inspired by these accomplishments, students and faculty at colleges and universities eventually mustered the courage to address similar topics, thereby transforming — partly by assimilation, partly by contestation — the previously hostile learned tradition. This originally rather disparate work gradually coalesced into lesbian, gay, bisexual, and transgender studies, which, over the last decade, has developed into an academic discipline of remarkable breadth and vitality. The field embraces work in genetics and cultural studies, literature, and anthropology; the health sciences, history, and the visual arts. It ranges from archival research to the elaboration of queer theory, from the analysis of constitutional law to questions of public health, from the study of identical twins to the study of popular culture.

Although the initial focus in lesbian, gay, bisexual, and transgender studies is usually on minority sexualities and genders, it is impossible to study them in any meaningful way without raising questions about sexuality and gender in general. And those questions cannot be responsibly answered without considering class, race, ethnicity, history, political economy, and the construction of scientific knowledge. Thus lesbian, gay, bisexual, and transgender 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, gender, and culture. It represents an important vantage point from which to investigate the social construction of gender and sexual identity, social control of behavior, changing definitions of the family, and the place of sexual expression in the public and private spheres.

Because of the kinds of questions asked, lesbian, gay, bisexual, and transgender studies is the site of some of the most exciting work being done today on the relation of culture, gender, and sexuality.

UCLA’s minor in Lesbian, Gay, Bisexual, and Transgender Studies provides the opportunity to study sexuality from a variety of interdisciplinary perspectives. Interdisciplinarity is assured by requiring students to take at least one course each in the life sciences, social sciences, and humanities. In addition, seniors in the minor are expected to do an internship in a community organization, thereby acquiring a kind of knowledge not usually available in the classroom. After completing the minor, students should be familiar with the theoretical tools that different disciplines employ to study sexuality and gender. They should be acquainted with some of the many different ways sexuality and gender have been organized in the past and are organized in different cultures in the present and should have an enhanced understanding and appreciation both of the sexual and gender diversity of the world in which they live and of the complex ways in which sexuality and gender intersect with other categories of identity and practice.

Undergraduate Study

Lesbian, Gay, Bisexual, and Transgender Studies Minor

To enter the Lesbian, Gay, Bisexual, and Transgender Studies minor, students must have an overall grade-point average of 2.0 or better.

Required Upper Division Courses (32 units): Lesbian, Gay, Bisexual, and Transgender Studies M114, 196, and six additional courses, including at least one each in the humanities, life sciences, and social sciences, to be selected from the approved list of courses available in the program office each term. Students may petition to apply a related course not on the list toward the six-course requirement if they can show that lesbian, gay, bisexual, or transgender issues represent a significant part of the course content. Students are strongly urged to keep in close contact with advisers in the program office who can help them plan their course of study.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.
Lesbian, Gay, Bisexual, and Transgender Studies

Upper Division Courses

M101A. Lesbian and Gay Literature before Stonewall. (5) (Same as English M101A and Women's Studies M101A.) Lecture, four hours. Requisite: English Composition 3 or 3H. Upper Division Credit. A survey of lesbian and gay literature in English from earlier periods through the 1960s. Works by such authors as Walt Whitman, Oscar Wilde, Radclyffe Hall, E.M. Forster, Wila Cather, Virginia Woolf, Laura Barnwell, Christopher Isherwood, William S. Burroughs, John Rechy, Audre Lorde, and Edward Albee. P/NP or letter grading.


M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (5) (Same as Women's Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of lesbians, gay men, bisexuals, and transgendered people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation. (4) (Same as Women's Studies M115.) Lecture/discussion, three hours. Requisite: course M114 or 199. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural representations, historical and political change, life and health experiences, and queer or transgender theories; multiethnic and cross-cultural emphases. May be repeated for credit. Letter grading.


M118. Queering American History. (4) (Same as Women's Studies M118.) Lecture, four hours. History of sexual and gender minorities in the 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.

M133. Chicana Lesbian Literature. (4) (Same as Chicana and Chicano Studies M133 and Women's Studies M133.) Lecture, three hours. Exploration of intersection of radical First and Third World feminist politics, lesbian sexuality and its relationship to Chicana identity, representation of lesbianism in Chicana literature, meaning of zamiita in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/Chicano studies. Letter grading.

M134. Cultural Construction of Gender and Sexuality: Homosexualities. (4) (Same as Anthropology M134 and Honors Collegium M129.) Seminar, three hours. Comparative analysis of role of environment, history, and culture in structuring of patterns of same-sex erotic behavior in Asia, Africa, Middle East, Pacific, Caribbean, and aboriginal America. P/NP or letter grading.

M137. Gay and Lesbian Perspectives in Pop Music. (5) (Same as Music History M137.) Lecture, four hours; discussion, one hour. Survey of English-language popular music in the 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

M147A. Psychology of Lesbian Experience. (4) (Same as Psychology M147A and Women's Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: course M101B or Psychology 12. Analysis of literature on lesbians, gay men, and members of other sexual minorities. Letter grading.

M157. Selected Texts in Queer Theory. (4) (Same as Sociology M157 and Women's Studies M157.) Lecture, three hours; discussion, one hour. Sociological perspectives on topics such as identity and community; age, class, gender, and racial differences in sexualities; analysis of minority sexualities. P/NP or letter grading.

M167. Selected Texts in Lesbian and Gay Studies. (4) (Same as Sociology M167 and Women's Studies M167.) Lecture, three hours; discussion, one hour. Examination of minority sexualities; variable topics may include identity and community; age, class, gender, and racial differences in sexualities; analysis of minority sexualities. Requisite: M101B. P/NP or letter grading.

M197. Selected Topics in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Seminar, three hours. Preparation: completion of four courses toward the minor. Requisite: course M114. Limited to seniors. Within a lesbian, gay, bisexual, or transgender community organization coupled with a weekly seminar. Consideration of theoretical and political issues involved in work and research of those issues to issues explored in minor courses already taken.

M197D. Special Topics in Lesbian and Gay Literature. (5) (Same as English M197D.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable topics on lesbian and gay literature. Topics focus on particular aspect or issue in terms of its relationship to lesbian and gay culture and writing. May be repeated for credit. P/NP or letter grading.

M199. Special Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Requisite: course M114. Directed program of independent study or research on a specific topic within lesbian, gay, bisexual, and transgender studies.

Life Sciences

College of Letters and Science

UCLA

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http://www.lscsce.ucla.edu

Scope and Objectives

Students who wish to study life sciences have a choice of nine majors, all of which lead to a Bachelor of Science degree: Biology, Ecology, Behavior, and Evolution, Marine Biology, and Plant Biology (Organismic Biology, Ecology, and Evolution Department), Microbiology, Immunology, and Molecular Genetics (Microbiology, Immunology, and Molecular Genetics Department), Molecular, Cell, and Developmental Biology (Molecular, Cell, and Developmental Biology Department), Neurosciences (Neurosciences Interdepartmental Program), Physiological Science (Physiological Science Department), and Psychology (Psychology Department). This choice reflects the diversity of undergraduate instruction in life sciences at UCLA. Despite this diversity, all of these majors require a common core of introductory courses that forms the foundation for any study of life sciences and that is required for more advanced courses in each major. The common core includes courses in chemistry, physics, and mathematics, as well as introductory courses in evolution and biodiversity, cellular and organismal biology, molecular biology, and genetics. During the first two years, students may also gain experience in a research laboratory through the Student Research Program. For more information on each major, see the individual departmental listings in this section of the catalog. For additional information on the life sciences core curriculum, see http://www.lscsce.ucla.edu.

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 nine 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.

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

All core curriculum courses must be passed with a grade of C- or better and must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D, F, or In 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 students 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, 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.

Undergraduate Research Consortium in Functional Genomics

The Undergraduate Research Consortium in Functional Genomics (URCFG) offers a sequence of laboratory-intensive courses designed for undergraduate students committed to pursuing research. The innovative partnership between UCLA and the Howard Hughes Medical Institute (HMMI) was formed through a major award to Professor Upal Banerjee. The HMMI Programs Program seeks to engage leading scientists in transmitting the excitement and values of scientific research to undergraduate education. The goal of the URCFG is to emphasize the importance for academia and industry of research in the fields of medicine and biotechnology.

Sponsored by the Life Sciences Core, the URCFG provides undergraduates from any UCLA major with the opportunity to learn biological research techniques early in their educational careers and within a structured institutional environment. Undergraduates devote between one and four terms to the study of biological research in genetics, bioinformatics, and functional genomics. The training emphasizes research concepts in basic science such as the model organism and in advanced research techniques such as electron microscopy.

Students participate in one structured lower-division course — Life Sciences 10H — which is limited to 30 students per term and is offered every term. After satisfactorily completing course 10H and with instructor consent, students may participate in up to three terms of upper-division courses in genetics, genomics, and genomics. The upper division courses — Life Sciences 100HA, 100HB, 100HC — do not involve preexisting laboratory experiments. Syllabi for the courses are instead based on individual research projects whose outcomes students discover through the course of their studies. It is anticipated that only about one third of the students who complete course 10H will subsequently enroll in course 100HA, and students are advised that they can benefit significantly from course 100H alone.

Each course must be taken for a letter grade. Under special circumstances, one course may be waived for students who have prior research experience in fields covered by the courses. Students who complete the required courses receive a certificate of merit indicating their completion of the consortium.

To participate, students must be accepted into the Undergraduate Research Consortium in Functional Genomics. Interested students should contact the URCFG coordinator in the Molecular, Cell, and Developmental Biology Student Affairs Office, 2124 Life Sciences, (310) 825-7109, for information regarding admission and an application. Applications are due no later than Friday of the fourth week of the term prior to the term in which students plan to enroll in course 10H.

Life Sciences

Lower Division Courses

1. Evolution, Ecology, and Biodiversity. (5) Lecture, three hours; laboratory, two hours; field trip. Introduction to principles and mechanisms of evolution by natural selection; population, behavioral, and community ecology; and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. P/NP or letter grading.

2. Cells, Tissues, and Organs. (5) Lecture, three hours; discussion/laboratory, three hours (alternate weeks). Enforced requisite: Chemistry 14A or 20A. Not open for credit to students with credit for course 2W. 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. (5) Lecture, three hours; discussion/laboratory, three hours (alternate weeks). Enforced requisite: Chemistry 14A or 20A, English Composition 3 or 3H. Not open for credit to students with credit for course 2W. Introduction to basic principles of cell structure, organization of cells into tissues and organs, and principles of organ systems. Satisfies Letters and Science Writing II requirement. Letter grading.

4. Genetics. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 3 or 2W, Chemistry 14C or 30A or former course 30. Introduction to the basic principles of biochemistry and molecular biology. Letter grading.

5. 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 or 2W, Chemistry 14C or 30A or former course 30. Honors course parallel to course 3, but at a more advanced level. Letter grading.

6. Teaching Practicum in Life Sciences. (2 or 4) Lecture, two and one-half hours; discussion, two hours. Observation, participation, or tutoring in science classes at middle school and secondary levels, offered for 1 unit in Fall and Winter Quarters and for 2 units in Spring Quarter (project required). May be repeated for credit. P/NP grading.

7. Teaching Practicum in Life Sciences (Honors). (2 or 4) Lecture, two and one-half hours; discussion, two hours. Enforced requisite: course 3 or 2W, Chemistry 14C or 30A or former course 30. Designed for students committed to pursuing research. Designed for advanced undergraduates in teaching courses related to life sciences. Students assist in preparation of materials and development of innovative programs under guidance of faculty and teaching assistants. Consult Life Sciences Core Curriculum Office for further information. Letter grading.

Upper Division Courses

100HA-100HB-100HC. Advanced Research in Genes, Genetics, and Genomics (4-4-4) Lecture, two hours; laboratory, 10 hours. Requisite: course 10H. Course 100HA is requisite to 100HB, which is requisite to 100HC. Designed for undergraduates who are committed to pursuing research. Advanced research training in genetics, cell and developmental biology, bioinformatics, functional genomics. Techniques include electron microscopy, other light microscopies, immunohistochemistry. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

130. Science Classroom Observation and Participation. (1 to 2) Lecture, one to two hours; observation, participation and observation, two hours. Observation, participation, or tutoring in science classes at middle school and secondary levels, offered for 1 unit in Fall and Winter Quarters and for 2 units in Spring Quarter (project required). May be repeated for credit. P/NP grading.

LINGUISTICS

College of Letters and Science

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Philippe D. Schlenker, Ph.D.
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Colin C. Wilson, Ph.D.
Linguistics B.A.
The B.A. degree program is designed for students with an exceptional interest in and aptitude for the study of languages and linguistics. It enables undergraduates to gain substantial familiarity with several languages and types of linguistic structure and to become conversant with the historical study of language and formal theories of linguistics.

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
To be admitted as Linguistics majors, transfer students 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.

The Major
Required: Eleven upper division courses as follows: Linguistics 103, 110, 120A, 120B, C130 or C132, and two courses from 125, 165A, 165B (students may substitute courses 200A and 200B for 165A and 165B respectively if they receive grades of A in 120A and 120B respectively and have consent of instructor). Both courses 165A and 165B, or 200A and 200B, 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 195, 196A, and 199 may be applied toward the major). The other course may be in linguistics or in another field as follows: Anthropology 143, Classics 180, English 121, 122, Philosophy 127A, 127B, 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 advisor.

Linguistics and Computer Science B.A.
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 33 is strongly recommended, when offered.

Transfer Students
To be admitted as Linguistics and Anthropology majors, transfer students 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.

The Major
Required: Eleven upper division courses as follows: Linguistics 103, 110, 120A, 120B, C130 or C132, and two courses from 125, 165A, 165B (students may substitute courses 200A and 200B for 165A and 165B respectively if they receive grades of A in 120A and 120B respectively and have consent of instructor). Both courses 165A and 165B, or 200A and 200B, 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 195, 196A, and 199 may be applied toward the major). The other course may be in linguistics or in another field as follows: Anthropology 143, Classics 180, English 121, 122, Philosophy 127A, 127B, 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 advisor.
guage or one year in each of two foreign languages. One discrete structures course is recommended.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 120A, 120B, 125, 165A or 165B, C180, C185A, Computer Science 131, 132, 161 or 163, 181, and one upper division elective in linguistics or computer science. Linguistics 104 and C185B are strongly recommended.

Linguistics and East Asian Languages and Cultures B.A.

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
To be admitted as Linguistics and East Asian Languages and Cultures majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Chinese, Japanese, or Korean, one introduction to linguistics course, one cultural anthropology course, one Chinese, Japanese, or Korean civilization course, and one year of a second foreign language.

The Major
Required: 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; for the classical Japanese track: Japanese 100A, 100B, CM122, 140A, 140B, 140C, 149; for the modern Japanese track: Japanese 100A, 100B, 100C, M120, CM122, CM123 or CM127, 130B; for the classical Chinese track: Chinese 110A, 110B, 110C, four courses from 140A, 140B, 140C, 145, 170, 195; for the modern Chinese track: Chinese 100A, 100B, 100C, 101A, 101B, 130A, 130B; for the Korean track: Korean 100A, 100B, 100C, CM120, three courses from 101A, 101B, 101C, CM127, 130A, 130B.

Linguistics and English B.A.

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
To be admitted as Linguistics and English majors, transfer students 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.

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 121, 122 (or Applied Linguistics and Teaching English as a Second Language C116), 140A, and three electives from 141A, 141B, 142A, 142B, 143, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Linguistics and French B.A.

Preparation for the Major
Required: Linguistics 20, French 1, 2, 3, 4, 5, 6, 12, 15, completion of the equivalent of the third term of a second foreign language.

Transfer Students
To be admitted as Linguistics and French majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of French, one introduction to linguistics course, one French literature course, one French diction course, and one year of a second foreign language.

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, French 100, 101, 102, 105, 107, and one elective upper division French literature course.

Linguistics and Italian B.A.

Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
To be admitted as Linguistics and Italian majors, transfer students 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.

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, 190, and three upper division electives in Italian.

Linguistics and Philosophy B.A.

Preparation for the Major
Required: Linguistics 20, Philosophy 31, 32, and two courses from 1, 6, 7, 21, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

Transfer Students
To be admitted as Linguistics and Philosophy majors, transfer students 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 symbolic logic courses and two courses from Western philosophy, political philosophy, philosophy of mind, or skepticism and rationality, and two years of one foreign language and one year of a second foreign language.

The Major
Required: Thirteen upper division courses as follows: Linguistics 103, 120A, 120B, 125, 165B (or 200B with a grade of A in 120B and consent of instructor), two upper division electives in linguistics; six upper division courses in philosophy, including at least five from Philosophy 124 through 135B, 170, 172, 184, 186, 187, 188, of which at least two must be from 127A, 127B, 172.

Linguistics and Psychology B.A.

Preparation for the Major
Required: Linguistics 20, Psychology 10, 85, 100A, 100B, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language. Program in Computing 10A is strongly recommended.

Transfer Students
To be admitted as Linguistics and Psychology majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, and two years of one foreign language and one year of a second foreign language. One introduction to programming course is strongly recommended.

The Major
Required: Eleven upper division courses (six in linguistics and five in psychology) as follows: Linguistics 103, 120A, 120B, C130, C132, and one upper division elective in linguistics (multiple-listed courses may not be applied). Linguistics C135 or 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor) is strongly recommended. Also required are Psychology 120A, 121, 133B, and two electives to be selected from 115, 116, M117C, 118, M119L,
12A, 12B, 124C, 124E, 130, 133C, 133E, 133F, 186A, 186B.

Linguistics and Scandinavian Languages B.A.

Preparation for the Major

Required: Linguistics 20, Scandinavian 1, 2, 3, 4, and 5, or 11, 12, 13, 14, and 15, or 21, 22, 23, 24, and 25, completion of the equivalent of the third term of a second foreign language.

Transfer Students

To be admitted as Linguistics and Scandinavian Languages majors, transfer students 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.

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, two courses from Scandinavian 105, 110, 115 (or one of these courses twice), 199 (in a topic related to Scandinavian linguistics, under the direction of a Scandinavian or Linguistics faculty member), and three upper division electives in Scandinavian.

Linguistics and Spanish B.A.

Preparation for the Major

Required: Linguistics 20, Spanish 1, 2, 3, 4, 5, 6, 25 or 27, M42, M44, completion of the equivalent of the third term of a second foreign language.

Transfer Students

To be admitted as Linguistics and Spanish majors, transfer students 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.

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 additional upper division course in linguistics, Spanish 100A, 100B, 115 or M118A, two courses from 119A, 119B, 119C, and one additional upper division Spanish course.

African Languages B.A.

Preparation for the Major

Required: Linguistics 20, nine courses from African Languages 1A through 42C and 199 (six in one language and three in another).

Transfer Students

To be admitted as African Languages majors, transfer students 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 language and one year of one other language.

The Major

Required: A minimum of 13 upper division courses, including three courses in an African language; African Languages M190, Linguistics 103; two courses from Film and Television 106C, Folklore M155, French 121A, Theater 102E, or one or more special 4-unit African Languages 199 tutorials focusing on literature in an African language; three courses from English 114, Ethnomusicology C136A, C136B, History 125A, 125B, 125C, 126A, 126B, 127A, 127B, 128A, 128B, Linguistics 110, 120A, 120B or 127, C140, M146, 170, Political Science 151A, 151B, 151C. Linguistics 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor) and completion of the sixth term in one of the following non-African languages are strongly recommended: Afrikanas, Arabic, Dutch, French, German, Portuguese.

Honors Program

Honors in linguistics 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 195 or in 196A and 196B. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors as the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization

Students in any of the linguistics 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, 10B, 10C, 60, Linguistics C180, C185A. 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 multilingual 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 103, 120A, 120B, two elective courses selected from 104 through 118B, and an additional elective linguistics course, which may be upper or lower division.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Linguistics.

African Languages

Lower Division Courses

1A-1B-1C. Elementary Swahili. (4-4-4) Lecture, five hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Major language of East Africa, particularly Tanzania. P/NP or letter grading.

2A-2B-2C. Intermediate Swahili. (4-4-4) Lecture, four hours. Enforced requisite: course 1A. Course 2A is enforced requisite to 2B, which is enforced requisite to 2C. P/NP or letter grading.

7A-7B-7C. Elementary Zulu. (4-4-4) Lecture, five hours. Course 7A is enforced requisite to 7B, which is enforced requisite to 7C. Most widely spoken of the Nguni languages of South Africa, mutually intelligible with other members of this group. P/NP or letter grading.

8A-8B-8C. Intermediate Zulu. (4-4-4) Lecture, four hours. Enforced requisite: course 7C. Course 8A is enforced requisite to 8B, which is enforced requisite to 8C. P/NP or letter grading.

11A-11B-11C. Elementary Yoruba. (4-4-4) Lecture, five hours. Course 11A is enforced requisite to 11B, which is enforced requisite to 11C. Major language of western Nigeria. P/NP or letter grading.

12A-12B-12C. Intermediate Yoruba. (4-4-4) Lecture, four hours. Enforced requisite: course 11C. Course 12A is enforced requisite to 12B, which is enforced requisite to 12C. P/NP or letter grading.


17. Intensive Elementary Zulu. (12) Lecture, 20 hours (eight weeks). Intensive instruction (equivalent to courses 7A, 7B, 7C) in Zulu, most widely spoken of the Nguni languages of South Africa, mutually intelligible with other members of this group. Letter grading.


21. Intensive Elementary Quechua. (4-4-4) Lecture, 20 hours. Enforced requisite: course 18A. Course 18A is required for 18B, which is enforced requisite to 18C. Language of the Incas and their present-day dialects, as spoken in Andean South America. Offered in summer only. Letter grading.

22. Intensive Intermediate Quechua. (4-4-4) Lecture, 20 hours. Enforced requisite: course 18A. Course 18A is required for 18B, which is enforced requisite to 18C. Language of the Incas and their present-day dialects, as spoken in Andean South America. Offered in summer only. Letter grading.

23. Graduate Courses

202A-202B-202C. Comparative Bantu. (4-4-4) Lecture, four hours. Requisites: Linguistics 110, 165A, 165B. Recommended: three quarter courses in one Bantu language selected from 1A through 8C. 199. Investigation of relationships among the Bantu languages; extent and external relationships of Bantu. S/U or letter grading.

596. Directed Studies. (1 to 8) Tutorial, to be arranged. Directed individual study or research. Four units may be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

Indigenous Languages of the Americas

Lower Division Courses

17. Intensive Elementary Quechua. (12) Lecture, 15 hours; laboratory, five hours. Intensive course equivalent to courses 18A, 18B, 18C. Language of the Incas and its present-day dialects, as spoken in Andean South America. Offered in summer only. Letter grading.

18A-18B-18C. Elementary Quechua. (4-4-4) Lecture, five hours. Course 18A is enforced requisite to 18B, which is enforced requisite to 18C. Language of the Incas and its present-day dialects, as spoken in Andean South America. Letter grading.

Upper Division Courses

596. Directed Studies in Quechua. (1 to 8) Requisites: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward M.A. course requirements. May be repeated for credit. S/U 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.

2. Language in the U.S. (5) Lecture, four hours; discussion, one hour. Survey of languages of the U.S. (American Indian languages, oldest immigrant languages, and regional and social varieties of English, and newest arrival languages) and social and political effects of these languages. P/NP or letter grading.

4. Language and Evolution. (5) Lecture, four hours; discussion, one hour. Basic concepts and tools of evolutionary 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.

M10. Structure of English Words. (5) Formerly numbered 10.) (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.

20. Introduction to Linguistics. (5) Lecture, four hours; discussion, one hour. Introduction to theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. P/NP or letter grading.

88. Lower Division Seminar. (4) Seminar, three hours. Limited to freshmen/sophomores. Variable topics; consult Schedule of Classes. College of Letters and Science: offered at least once a specific term. May be repeated for credit. P/NP or letter grading.

99. Special Studies in Linguistics. (2 to 4) Supervised research or training. May be repeated for credit. P/NP or letter grading.

Upper Division Courses

103. Introduction to General Phonetics. (5) Lecture, four hours; discussion, one hour. Preparation: one prior linguistics course or course 20 concurrently. Phonetics of a variety of languages and phonetic phenomena that occur in languages of the world. Extensive practice in perception and production of such phenomena. P/NP or letter grading.


110. Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 103, 120A. Methods and theories approx. to historical study of language, such as comparative and method of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

C111. Intonation. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 20, 103, 120A or 120B. Recommended: course 104 or 204. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Concurrently scheduled with course C211.

114. American Indian Linguistics. (5) Lecture, four hours; discussion, one hour. Strongly recommended preparation: course 20. Survey of genetic, areal, and typological classifications of American Indian languages; writing systems for American Indian languages; American Indian languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.

M115. Survey of African Languages. (4) (Same as African Languages M190.) Requisite: course 20. Introduction to languages of Africa, their distribution and classification, and their phonological and grammatical structures; elementary practice in several languages.


120B. Syntax I. (5) Lecture, four hours; discussion, one hour. Requisite: course 20. Course 120A is not prerequisite to 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight into nature of such structures rather than linguistics formalization. P/NP or letter grading.

125. Semantics. (5) Lecture, four hours; discussion, one hour. Requisite: course 120B. Survey of most important theoretical and descriptive claims about the nature of meaning. P/NP or letter grading.

127. Syntactic Typology and Universals. (5) Lecture, four hours; discussion, one hour. Requisite: completion of one or more courses in courses 103 or 120A. Survey of 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, language-acquisition/possession, causation, interrogation, reflexivization, relativization, attribution (adjectives), tense (tense and aspect), and backgrounding (subordination). Data from a range of languages presented and analyzed. P/NP or letter grading.

C128A-C128B. Romance Syntax: French. (4-4) Lecture, four hours; Preparation: some knowledge of French (or a Romance language). Requisite: course 120B. Course C128A is requisite to C128B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with courses CM228A-CM228B. P/NP or letter grading.

C130. Language Development. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 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 universals of language development. Topics include infant speech perception and production, development of phonology, semantics, syntax, and word meaning. Concurrently scheduled with course C233. P/NP or letter grading.

C132. Language Processing. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 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 universals of language development. Topics include infant speech perception and production, development of phonology, semantics, syntax, and word meaning. Concurrently scheduled with course C232. P/NP or letter grading.

C135. Neolinguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 1 or 20, and C130. 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 in 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) Formerly numbered 140.) Lecture, four hours; discussion, one hour. Requisites: courses 120A, 120B, and C130. Introductory examination of bilingualism and adult and child second language (L2) acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2 acquisition; introduction to neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C244. P/NP or letter grading.

M146. Language in Culture. (5) (Same as Anthropology M140.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 20 or Anthropology 33. Study of language as an aspect of culture; relation of habitual thought and behavior to language; and language and the 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.

M150. Introduction to Indo-European Linguistics. (5) (Same as Indo-European Studies M150.) Lecture, four hours. Recommended prerequisite: course 1 or 20. Indo-European languages and their cognates are offered at least once a specific term, including their relationships, chief characteristics, writing systems, and sociolinguistic contexts; nature of reconstructed Indo-European proto-language and proto-Indo-European languages may be investigated in detail. P/NP or letter grading.

160. Field Methods. (6) Discussion, four hours; individual or group sessions, one to two hours. Requisites: courses 103, 120A, 120B. Analysis of a language unknown to members of class data elicited from a native speaker of the language.

165A. Phonology II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120A (undergraduate students recommended to take course 165A with 200A, with consent of instructor). Further study in phonological theory and analysis: auxiliary- and tone-language, syllable structure, metrical theory, interface of phonology and grammar. P/NP or letter grading.

165B. Syntax II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120B. Recommended for students who plan to do graduate work in linguistics. Form of grammars, word formation, formal and sub- stantive universals in syntax, relation between syntax and semantics. P/NP or letter grading.

170. Language and Society: Introduction to Sociolinguistics. (4) Requisite: course 20. Study of patterns of variation and social meaning; social classes, dialects and social styles in language; problems of multilingual societies.

175. Linguistic Change in English. (5) Lecture, four hours; discussion, one hour. Requisites: courses 120A, 120B, and C130. Study of dialects and social classes in language; problems of multilingual societies.


M178B. Structure of Japanese II. (4) (Same as Japanese CM123.) Lecture, three hours. Recommended preparation: two or more years of Japanese language study. Survey of Japanese language at three different levels of organization: (1) word level — word class, verbal morphology and semantics; (2) clause/sen- tence — word order, grammatical constructions; (3) dis- course level — point of view, ellipsis, topicalization. Letter grading.

M177. Structure of Korean. (4) (Same as Korean CM124.) Lecture, three hours. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of ma- jor syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief in- troduction to formation, typological features, and pho- nological structure of Korean. Letter grading.
218. Mathematical Structures in Language II. (4) Lecture, four hours. Requisite: course C180 or C208. In-depth study of a selected quantitative topic; selected topics from distinctive feature theory, formal syntax, partial orders and lattices, formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Analysis and classification of languages spoken in a particular area (e.g., Africa, the Balkans, South Asia, Southeast Asia, Australia, Aboriginal North America, Aboriginal South America, Far East, etc.). May be repeated for credit with topic change.

225. Linguistic Structures. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Phonological and grammatical structure of a selected language and its genetic relationships to others of its family. May be repeated for credit with topic change.

CM228A-CM228B. Romance Syntax. French. (4-4) (Same as Romance Linguistics M220A-M220B.) Lecture, four hours. Preparation: some knowledge of French in a previous language. Prerequisites: courses 120A, 120B. Course CM228A is requisite to CM228B. Aspects of structure of French language, 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 courses may deal with different areas of linguistics (e.g., phonology, syntax) or with different historical periods. May be repeated for credit with topic change.

C232. Language Processing. (5) Lecture, four hours; laboratory, one hour. Requisites: courses 20, 120A, 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 of sentence production, and computation of syntactic structure during production. Concurrently scheduled with course C132. Graduate students expected to read more advanced literature and produce research papers of greater depth. S/U or letter grading.

C233. Language Development. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 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 universals of language development. Topics include infant speech perception and production, development of phonology, morphology, syntax, and word meaning. Concurrently scheduled with course C130. Graduate students expected to apply more sophisticated knowledge and produce research papers of greater depth. S/U or letter grading.

C235. Neurolinguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 1 or 20, and C130. 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 methodological issues in behavior and atypical hemispheric specialization for language and children and adults with acquired and 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.

237. Linguistic Methods Laboratory. (4) Laboratory, four hours. Variable content, with topics such as computer implementation of linguistic models, corpus experiments, and methods for linguistic data collection, statistical analysis of results. May be repeated for credit. Letter grading.

244. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour. Requisites: courses 120A, 120B, C130. Introduction to study of childhood bilingualism and adult and child second language (L2) acquisition, with focus on underlying nature of L2 grammar and grammatical processes underlying L2/bilingual acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C140. Graduate students expected to read more advanced literature, do in-class presentation, and submit graduate-level term paper. S/U or letter grading.

M246C. Topics in Linguistic Anthropology. (4) (Same as Anthropology M241.) Problems in relations of language, culture, and society. May be repeated for credit.

251A. Topics in Phonetics and Phonology. (4) Lecture, four hours. Requisite: course 200A. Course 201, 203, or 204 may be required. Specialized topics in phonetics and phonology. Meets with course 251B. May be repeated for credit.

251B. Topics in Phonetics and Phonology. (2) Lecture, four hours. Requisite: course 200A. Course 201, 203, 204, 205, 206, 207, C208, C209A, C209B, 212, 213A, 214, 215, 216, or 218 may be required. Individual seminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. May be repeated for credit. Meets with course 254. In Progress grading (credit to be given only on completion of course 257B).

257A. Topics in Syntax and Semantics I: Proseminar. (2) Requisite: course 257A. Specialized topics in syntax and semantics. May be repeated for credit.

257B. Topics in Syntax and Semantics II: Proseminar. (2) Requisite: course 257A. Specialized topics in syntax and semantics. May be repeated for credit.

258A. Topics in Language Variation II: Proseminar. (4) Requisite: course 110. Course 202 may be required. Specialized topics in language variation. May be repeated for credit. Meets with course 253. In Progress grading (credit to be given only on completion of course 257B).

258B. Topics in Language Variation II: Proseminar. (2) Requisite: course 258A. Specialized topics in language variation. May be repeated for credit.

260A-260B-260C. Seminars: Phonetics. (2 or 4 each) Discussion, three hours. Each course may be taken independently for credit. May not be applied toward M.A. 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) Discussion, three hours. Each course may be taken independently for credit. May not be applied toward M.A. 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) Discussion, three hours. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

263A-263B-263C. Seminars: Language Variation. (2 or 4 each) Discussion, three hours. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

264A-264B-264C. Seminars: Special Topics in Linguistic Theory. (2 or 4 each) Discussion, three hours. Each course may be taken independently for credit. Special topics may include child language, neurolinguistics, psycholinguistics, sociolinguistics, etc. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A. Linguistics Colloquium. (4) Preparation: completion of M.A. requirements. Varied linguistic topics, generally presentations of new research by students, faculty, and visiting scholars. S/U grading.

266. Linguistics Colloquium. (No credit) Designed for graduate students. Subject matter may vary, but taken without credit by students not presenting a colloquium. S/U grading.

275. Teaching Apprentice Practicum. (1 to 4) Seminar, arrangement. Preparation of material and supervision of a regular faculty member responsible for instruction, and in selected classroom laboratory work. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.
Undergraduate Study

Accounting Minor

Admission to the Accounting minor is competitive and based on a 3.0 grade-point average in the lower division preparation courses. Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the minor. Transfer credit for any of the courses is subject to department approval and is considered only for prerequisite coursework. Decisions on admission to the minor are made by the Anderson School. The requisite grade-point average and completion of the preparation courses do not guarantee admission to the program. For further information, see http://www.anderson.ucla.edu/acad_unit/accounting/undergradprog.html.

Required Lower Division Courses (28 units):
Economics 1, 2, M40 (or Statistics 10 as a substitute for course M40); Management 1A, 1B; Mathematics 3A, 3B (higher-level courses and/or Advanced Placement Test credit may be substituted).

Required Upper Division Courses (28 units):
Management 120A, 120B, 122, 127A, and three courses from 108, 123, 124, 127B, 128. All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The John E. Anderson Graduate School of Management offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Management and the Master of Business Administration (M.B.A.) degree. The school also offers the Executive M.B.A. Program (EMBA) and the M.B.A. for the Fully Employed (FEMBA).
Management

Lower Division Courses

1A-1B. Elementary Accounting. (4-4) Lecture, three hours. Not open to freshmen. P/NP or letter grading.
1A. Introduction to accounting theory and practice. Recording, analyzing, and summarizing procedures used in preparing financial statements, asset side of balance sheet, current liabilities, payable account.

88. Lower Division Seminar: Special Topics in Management. (4) Seminar, three hours; outside study, nine hours. Enforced requisite: satisfactory performance on Subject A requirement. Variable topics seminar which 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 a professional school faculty member. Letter grading.

98. Management Strategies in a Changing World. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement, Economics 1. Environment in which managers function has become far more complex. Identification of challenges to management as we approach the 21st century, using case method approach to investigate how social sciences disciplines have provided managers with theories and insights that lead toward successful management strategies. Letter grading.

98B. Personal Freedom at Work. (4) Seminar, three hours. Enforced requisite: satisfactory performance on Subject A requirement. Study of forces which lead to compromise in decision-making process. Roles of unions, companies, and workers. Most people enter the work scene convinced of freedom-constricting forces are at play, and even the most intelligent and best motivated can be led astray. Letter grading.

98D. Employee Participation: Labor/Management Cooperation. (4) Seminar, three hours. Enforced requisite: satisfactory performance on Subject A requirement. Overview of change in the workplace from perspective of cooperative efforts between labor and management in decision-making process. Roles of unions, companies, and government; societal implications. P/NP or letter grading.

Upper Division Courses

107. Business Communications. (4) Process and discipline of effective spoken presentations. Examination and application of classical and contemporary thinking on substance, structure, and delivery of messages. Elements of graphic presentation of data and representation technology. Students design and deliver informative and persuasive presentations on key management issues. Critique of all efforts; certain efforts to be videotaped for review. P/NP or letter grading.


122. Management Accounting. (4) Requisites: course 1B, Economics M40. Nature, objectives, and procedures of cost accounting and control; job costing and process costing; accounting for manufacturing overhead; cost budgeting; cost reports; joint-product costing; distribution cost; standard costs; differential cost analysis; profit-volume relationships and break-even analysis.

123. Auditing. (4) Lecture, three hours. Requisite: course 120B. Comprehensive study of procedures used in auditing, with emphasis on relevant information, including ethical, legal, and professional issues. Auditing of a complete set of financial statements. P/NP or letter grading.


125. Special Applications in Accounting. (4) Requisite: course 120B. Recommended: course 122. Designed for seniors. Use of "Strategic Management," a computer program that simulates experience on a senior management team. Under real and sometimes adverse economic conditions, teams must make strategic and tactical decisions, evaluate performance results, and compete for key resources, market share, and business opportunities. Emphasis on theories of return on equity, product life cycles, product line margin analysis, issuing debt versus equity, and other topics that allow students to apply accounting principles learned in previous courses. P/NP or letter grading.

126. Financial Statement Analysis. (4) Lecture, three hours. Requisite: course 120B. Not open to students with credit for course 197 when offered as this topic. Comprehensive study of concepts and procedures used to interpret and analyze financial statements effectively, including asset, liability, and equity analysis; revenue and expense evaluation; financial ratios, credit analysis, and distress prediction; valuation theory and implementation; business strategy analysis; mergers and acquisitions. P/NP or letter grading.

127A. Tax Principles and Policy. (4) Requisite: course 1B. Study of fundamental income tax problems encountered by individuals and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax rules in capital transactions and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 1B. Recommended: course 127A. Study of tax issues arising in formation, operation, and termination of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. P/NP or letter grading.


130A. Basic Managerial Finance. (4) Lecture, three hours. Requisites: course 120A or 120B, Economics M40. 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.


133. Investment Principles and Policies. (4) Lecture, three hours. Requisite: course 130A. Principles underlying investment analysis and policy; salient characteristics of governmental and corporate securities; policies of financial institutions; relation of investment policy to money markets and business fluctuations; security pricing forces; construction of personal investment programs.


150. Elements of Industrial Relations. (4) Principles and methods of effectively utilizing human resources in organizations. Relationship between social, economic, and other environmental factors and current problems in industrial relations.

175. Elements of Real Estate and Urban Land Economics. (4) Examination of business decision making as related to logical forces shaping cities and influencing real estate market functions and land uses. Emphasis on decision making as it relates to appraising, building, financing, managing, marketing, and using urban property.

182. Leadership Principles and Practice. (4) Knowledge and skills leading to effectiveness in interpersonal relations. Understanding oneself as a leader and others as individuals and as members of working groups. Understanding of group process, including group leadership. Lectures and “sensitivity training” laboratory.


197. Special Topics in Management. (4) 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.

199. Special Studies in Management. (2 to 8) Discussion: three hours. Designed for juniors/seniors. Undergraduate individual investigation of selected research topic to be arranged with a faculty member. P/NP or letter grading.
Graduate Courses

200. Advanced Microeconomics. (4) Seminar. Three hours. Prerequisite: course 405. Economist’s approach to organization and competitive interaction. Topics include game theory, threat credibility, incentive contracts, information advantages, and entry deterrence.

201A. Business Forecasting: Turning Numbers into Knowledge. (4) Discussion, three hours. Preparation: familiarity with linear regression. Examination of one approach to analytical thinking — forcing numerical and textual data into carefully formulated alternative models. Data studied include macroeconomic variables (growth, inflation, unemployment, interest rates, and exchange rates), industry data, and firm data.

201B. Econometrics and Business Forecasting. (4) Lecture, three hours. Development of standard topics in applied econometric modeling. Emphasis on assumptions underlying classical normal linear regression model, special problems in application, and interpretation of results. Practical applications extensively developed in student projects.


203A. Economics of Decision. (4) Discussion, three hours. Preparation: basic probability theory. Basic models of decision making. Game theory and introduction to noncooperative game theory. Examination in some detail of von Neumann/Morgenstern expected utility theory. Other topics in decision theory include subjective expected utility theory and departures from expected utility behavior. S/U or letter grading.


205A. International Business Economics. (4) Requires: course 203A. Comparative study of public policies toward competition, market structure, and competitive practices in key industries in selected countries.


207. Resource Administration of Nonmarket Activities. (4) Seminar, three hours. Requires: course 405. Examination of behavior of managers in profit vs. not-for-profit sectors to determine critical variables that explain observed differences in behavior. Use of methodology of microeconomics, particularly utility maximization.


209. Selected Topics in Business Economics. (4) Special topics in business economics. Current developments in theory or practice in business economics. May be repeated for credit.

210A. Mathematical Programming. (4) Discussion, three hours. Preparation: linear algebra. Comprehensive development of theory and computational methods of linear programming, with applications to a variety of areas. S/U or letter grading.

210B. Applied Stochastic Processes. (4) Discussion, three hours. Preparation: probability theory at level of Electrical Engineering 131A or Mathematics 114. Topics include Poisson processes, renewal theory, Markov chains, and Markov decision processes, with emphasis on problem formulation, decision making, and characterization of optimal policies. Specific applications include traditional operations research topics (inventory, queueing, maintenance, reliability), as well as several in microeconomics (search and research and development), S/U or letter grading.

210C. Network Flows and Integer Programming. (4) Discussion, three hours. Preparation: linear programming. Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer and network programming 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.

211A. Nonlinear Mathematical Programming. (4) Discussion, three hours. Requires: course 210A, Mathematics 31B. Topics include applications of optimization for situations where models must be nonlinear, with special emphasis on case of “convexity.” Topics include classical approaches to optimization, theory of optimality and duality, main computational approaches, and survey of currently available computer software. S/U or letter grading.

211B. Large-Scale Mathematical Programming. (4) Discussion, three hours. Requires: course 210A. Theory, methods, and applications of optimization for situations where models are large and have special structure, as is often the case in real applications. Focus on ways of exploiting special structures with combinatorial, multivariable, and stochastic aspects in pursuit of computational tractability. S/U or letter grading.

212A. Decision Sciences Models I. Lecture, four hours. Requires: course 407, Mathematics 31B. Broad overview of decision sciences, including solution methods and applications management. Solution methods include linear programming, network optimization, integer programming, and nonlinear programming. Application areas include corporate planning, finance, marketing, facilities design, production, and operations management, distribution, and project management. S/U or letter grading.


213A. Intermediate Probability and Statistics. (4) Discussion, three hours. Preparation: working knowledge of differential and integral calculus of several variables, basic probability theory, and univariate mathematical statistics. Introduction to probability theory and hypothesis testing as applied to management. SAS programs used in this course and its sequel. S/U or letter grading.

213B. Statistical Methods in Management. (4) Discussion, three hours. Requires: course 402. Introduction to parameter and interval estimation, simple and multiple linear regression and correlation, fixed, random, and mixed effects, analysis of variance models, and nonparametric statistics, all as they apply to management studies. S/U or letter grading.

213C. Introduction to Multivariate Analysis. (4) Discussion, three hours. Preparation: working knowledge of differential and integral calculus of several variables, basic probability theory, and univariate mathematical statistics. Introduction to use of multivariate models in management research to organize and represent information; interpretation of coefficients from multivariate exploratory models (e.g., principal axes and factor analysis models); survey of multivariate statistical procedures (e.g., multiple discriminant analysis, multivariate analysis of variance, canonical correlation, and confirmatory factor models). S/U or letter grading.

214B. Behavioral Science Models. (4) Discussion, three hours. Presentation of variety of models having specifically interdisciplinary flavor, with emphasis on their use in helping to understand human processes in variety of contexts. Special topics include everyday decision making, problem solving, learning, group behavior, persuasive communication, conformity and independene, and variety of topics in mass behavior. Emphasis is complementary to economics and often draws on ideas of game theory and probability theory. S/U or letter grading.

215. Negotiations Analysis. (4) Discussion, three hours. Series of negotiation exercises to foster development of students’ negotiation skills and experience. Use of economic and game-theoretic concepts in de-brief to gain insight and an understanding for finding the broad negotiation principles applicable. S/U or letter grading.


216A. Simulation of Modeling and Analysis. (4) Discussion, three hours. Preparation: probability theory, mathematical statistics, analytical modeling. Development of computer simulation models for managerial decision making under uncertainty or complex dynamics, with emphasis on simulation methodology such as design, validation, operating procedures, and interpretation of results. Application areas include finance, marketing, and production. S/U or letter grading.

217A. Decision Analysis. (4) Lecture, three hours. Requires: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what other individuals will do. Framework provided for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of treasure hunting, and bidding. S/U or letter grading.

217B. Game Theory. (4) Discussion, three hours. Requires: courses 402, 405. Theory of games plays increasingly important role as source of clear language and concepts for analysis of policy problems in every area. Introduction to subject, with emphasis on interpretation and application of ideas to variety of practical issues in management and public policy, and in practical questions of ethics, fairness, and bargaining. S/U or letter grading.

218A. Selected Topics in Decisions, Operations, and Technology Management. (1 to 4) Discussion, three hours. Newly developing topics of interest to Ph.D. students. Topics have included reliability and optimal maintenance theory, large-scale distribution/ inventory systems, and Markovian decision processes under uncertainty. May be repeated for credit. S/U or letter grading.
218C. Selected Topics in Statistics. (1 to 4) Discussion, three hours. Newly developing topics in statistics of interest to graduate students. Important new statistical methods continue to emerge that go well beyond familiar topics encountered in introductory statistics in flexibility and power and in empirical techniques for prediction. These methods provide new tools for analyzing complex relationships and for handling difficult data sets. Description of most important of new methods, including non-parametric regression, recursive partitioning, and methods for analysis of similarity data, with emphasis on how to use them and interpret their results. Access to relevant software and hands-on practice. May be repeated for credit. S/U or letter grading.

218X-218Y. Topics in Decisions, Operations, and Technology Management. (1 to 4 each) Lecture, one hour; discussion, three hours. Series of seminars and field trips to (1) acquaintance students with recent work not covered in regular curriculum and (2) help students build their personal professional networks through introduction to people from other organizations. In Progress and S/U grading.


221B. Cost Accounting. (4) Lecture, three hours. Requisite: course 403. Identification and solving financial problems through use of cases. Application of financial theory and technical principles to business problems; using written reports and classroom discussion. May be repeated for credit. S/U grading.

221C. Nonprofit Sector Financial Policy. (4) Discussion, three hours. Requisite: course 408. Identifying and solving financial problems for all types of nonprofit organizations, including capital funds accounting, budgeting and control, investment decisions, decision making when market valuation cannot be used as a criterion, and sources of funds for nonprofit organizations. Use of cases.


225B. Financial Management of Multinational Corporations. (4) Lecture. Requisite: course 230. Financial management of multinational firms from perspective of a financial vice president or other financial officer within the company. Topics include measuring foreign exchange risk, managing that risk with both contractual and operating strategies, foreign investment decisions, capital budgeting, and cost of capital in an international perspective, portfolio management, working capital management, and performance evaluation and control.

226. Special Topics in Finance. (4) Requisite: course 230. Selected topics in finance theory, empirical studies, and financial policy may be repeated for credit with instructor consent. S/U or letter grading.

229A. Theory of Exchanges under Uncertainty. (4) Requisite: course 230. Primarily designed for Ph.D. students, but well-prepared master’s students may find course useful in their career preparation. Foundations of theory of exchange developed as introduction to theoretical literature on pricing of capital assets.

229B. Theory of Investment under Uncertainty. (4) Requisites: courses 230, 239A. Primarily designed for Ph.D. students, but well-prepared master’s students may find course useful in their career preparation. Foundations of theory of firm capitalization and investment decisions, with special attention to questions of exchange and allocative efficiency.

229C. Empirical Research in Finance. (4) Discussion, three hours. Preparation: training in econometrics. Requisite: course 230. Primarily designed for Ph.D. students, but well-prepared master’s students may find course useful in their career preparation. In-depth study of empirical research in the field of finance, statistical methodologies applied to test market efficiency, and asset pricing theory. S/U or letter grading.

229D. Ph.D. Seminar: Corporate Finance. (4) Preparation: courses in 239 series. Requisite: course 230. Students interested in and encouraged to take through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.

229X-239Y. Finance Workshops. (1-1-2) Discussion, 90 minutes. Designed for Ph.D. 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 presented in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.


231. Selected Topics in Statistics. (1 to 4) Discussion, two hours. Discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.


243B. Inventory Theory. (4) Discussion, three hours. Requisite: course 210B. General discussion of inventory models, with emphasis on characterizing form of optimal policies and efficient computational methods. Deterministic, stochastic, and continuos-time models. S/U or letter grading.


244X-244Y-244Z. Research in Decisions, Operations, and Technology Management Systems. (1-1-2) Seminar. Three hours. Designed for first- and second-year Ph.D. students in decisions, operations, and technology management systems. Survey of research literature in operations management and technology management. Seminar reports dealing with special topics. May be repeated for credit with topic change. S/U or letter grading.

245. Special Topics in Decisions, Operations, and Technology Management Systems. (4) Discussion, three hours. Designed for graduate students. Exposes students to advanced sub-topics in decision and technology management systems. Topics vary each term and have included such areas as worker-man/machine interaction. S/U or letter grading.

246C. Management in Public and Private Nonprofit Sectors. (4) Designed for graduate students. Examines role of nonprofit and public organizations in the three sectors of U.S. society: unique aspects and challenges of nonprofit organizations of the political, social, and technical environment. Focus on roles and strategies for nonprofit organizations in information and technology management. Emphasis on organizational effectiveness. Topics vary each term and have included such areas as worker-man/machine interaction. S/U or letter grading.

247B. Role of Management in Artistic Decision Making. (4) Descriptive study of criteria for decision making in artistic institutions, including role of the institution in society, economic environment of the arts, and artistic value systems of arts organizations. Discusses issues of administrative and legal aspects of human resource systems. S/U or letter grading.

248A. Strategic Management in the Entertainment Industry. (4) Discussion, three hours. Requisites: courses 403, 405, 406, 408, 420. Examination of financial and strategic aspects of transactions and corporations in the entertainment industry. Cases and topics include organizational behavior and decision making in creative companies; trends in industry structure, and competition; accounting issues; institutional and private investment in motion pictures; theatrical distribution, international and ancillary markets (pay TV, videocassettes, syndication). S/U or letter grading.

249A. Special Topics in Public and Private Nonprofit Management. (4) Studies of advanced subjects in current interest in public/not-for-profit management. Emphasis on development and application of specialized knowledge to public/not-for-profit problems. Topics vary each term. May be repeated for credit with topic change.

249B. Special Topics in Arts Management. (4) Examination of current issues in management of artistic organizations. Relevant combinations of lectures, discussions, case studies, and team research projects.


250C. Behavioral Foundations of Human Resource Management. (4) Requisite: course 250B. Topics include development and training; human resource issues; selection procedures; behavior of employees such as performance, motivation, productivity, and satisfaction; designing reward systems; and evaluation of organization effectiveness. Emphasis on understanding, predicting, and influencing human behavior in organizations.

251. Managing Human Resources. (4) Management of people in organizations, designed for managers as well as personnel specialists. Organized at three levels but distinguished. (1) Day-to-day utilization of people as organizational resources to achieve optimal productivity, satisfaction, retention, and development; (2) personnel management function or system that performs specialized human resource functions; and (3) issues facing top management that involve management of human resources, including strategic planning for human resources, union-management relations, and design of corporate culture.

252. Systems of Employee/Management Participation. (4) Designed to provide understanding of systems of employee/management participation around the world (apart from traditional collective bargaining systems). Specific concepts such as worker participation in decision making, industrial democracy, joint consultation, workers’ councils, profit sharing. S/U or letter grading.

255C. Comparative Industrial Relations. (4) (Same as Policy Studies CM231.) Lecture, three hours; outside study, nine hours. Requisite: course 409 or elementary knowledge of labor economics. At national and international levels, historical and contemporary analytical comparison of political, social, and economic contexts influencing human resource systems of selected developed countries. In addition to discussing possible frameworks for analyzing human resource systems, examination of institutions and ideologies of labor, management, and government, and interaction of their power relationships; substance and manner of development of complex “web of rules” governing rights and obligations of the parties; and resolution of conflicts. S/U or letter grading.

257. Human Resource Management in Creative and Nonprofit Sectors. (4) Designed for graduate students. Analysis of human resource management theory and practices in industries where primary product is creative or intellectual (e.g., arts, entertainment, education, high technology, and journalism). Consideration of recruitment, development, retention, employee influences, systems, and business strategies in human resource management. Interpersonal and group process for managing human behavior. S/U or letter grading.
258. Selected Topics in Industrial Relations. (1 to 4) Described for Ph.D. students. Examination in depth of problems or issues of current concern in labor relations. Emphasis on recent contributions to theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

258A. Individuals and Groups in Human Systems. (4) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature assessing how organizations utilize human resources to enhance individual, group, and organizational effectiveness. Current theory and research in psychology, anthropology, and small group studies. Variety of methods represented, including clinical and cross-cultural approaches. S/U or letter grading.


260A. Market Assessment. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of major topics in economic analysis of labor markets and public policies toward the labor market. Topics include labor force trends and measurement, compensation determination, productivity, internal labor markets, human capital, union wage effects, unemployment, and minority and female labor-market experience. S/U or letter grading.


261A. Management in the Distribution Channel. (4) Lecture, three hours. Requisite: course 411. Examination of the importance of distribution channels. Issues of power in the distribution channel and trade-offs between alternative channel systems.

261B. Global Marketing Management. (4) Lecture, three hours. Requisite: course 405, 411. Consideration 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.


263A. Consumer Behavior. (4) Requisite: course 411. Study of nature and determinants of consumer behavior. Emphasis on influence of sociopsychological factors such as personality, small groups, demographic variables, social class, and culture on formation of consumers' attitudes, consumption, and purchasing behavior.

264A. Marketing Research: Design and Evaluation. (4) Lecture, three hours. Requisite: course 411. Designed for prospective users of research results rather than for specialists in marketing research. Marketing research is an aid to management decision making. Development of problem-analysis skills, providing knowledge of concepts and methods of marketing research with emphasis on quantitative tools to aid marketing decision making. Topics include demand and market share forecasting, conjoint analysis, market segmentation, brand positioning and competitive market structures, and assessing market response to price, advertising, promotion, distribution, and sales force. Letter grading.

265A. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation, and management of brands. Discussion of challenges to creating and maintaining strong brands. Topics include building brand knowledge and identities, marketing mix and brands, brand architectures, and brand equity. Letter grading.

266A. Product Management. (4) Lecture, three hours. Requisite: course 411. Investigation of process of developing new products, managing the development of mature products in existing markets. Regarding new product development, focus on concept screening, designing new products, and test marketing. Tactical management of marketing mix with currently available data emphasized in managing mature brands.

266B. Advertising and Marketing Communications. (4) Lecture, three hours. Requisite: course 411. Detailed review of use of communication tools in marketing. Critical review of advertising and promotion policies from developmental and executional perspectives. Discussion of other forms of marketing communications, helping students develop integrated communication strategies.

266C. 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.

269A. Theory in Marketing. (4) Serves as mechanism to introduce students to development of marketing theories. Issues pertaining to general logic of theory development and testing. Prepares students for conducting theoretically grounded research in marketing.

269B. Research in Marketing Management. (4) Discussion, three hours. Designed for Ph.D. students. Study of research issues associated with marketing management decisions. Recent research areas in strategic marketing, market segmentation, new product development and introduction, pricing strategies, channel policy, promotion decisions, and sales force management examined critically. Review of both quantitative and behavioral approaches to studying these issues.

269C. Quantitative Research in Marketing. (4) Designed for Ph.D. students in management and related fields. Students are assumed to have good background in mathematical statistics, with familiarity with probability, statistics, mathematical programming, and econometrics. Review of a range of quantitative models as applied in marketing research.

269D. Behavioral Research in Marketing. (4) Designed for Ph.D. students. Ph.D. level research on consumer behavior and related areas. Empirical research in consumer behavior surveyed and critically evaluated from theoretical as well as practical perspectives.

269E. Special Research Topics in Marketing. (4) Designed for Ph.D. students. Advanced selected topics in marketing with emphasis on thorough examination of one or two topics in current research and theory. May be repeated for credit.

269X-269Y-269Z. Workshops: Marketing. (1-1-2) Designed for Ph.D. students. Required of all students during first two years of their Ph.D. work. Series consists of a number of leading scholars in marketing and related disciplines who make presentations to marketing faculty and Ph.D. students. Active participation and intellectual interchange, which helps students gain a richer perspective on the field of marketing. In Progress grading.


270C. Application Frontiers in Information Systems. (4) Lecture, three hours. Requisite: course 404. Exploration of new state-of-the-art applications in information systems, such as in electronic commerce. Assessment of research opportunities and impacts. Topics vary from term to term. May be repeated for credit. S/U or letter grading.


271C. Emergent Technologies in Information Systems. (4) Discussion, three hours. Requisite: course 404. Special topics in new and emergent technologies such as multimedia, digital imaging, object-oriented software, heterogeneous databases, and parallel processing. Assessment of industrial opportunities and impacts. Topics vary from term to term. May be repeated for credit. S/U or letter grading.

272A. Information Systems Development. (4) Discussion, three hours. Methods and tools for information systems design, development, implementation, and maintenance. User requirements analysis. Design and specification of application software and databases. Classic and alternative approaches, such as rapid prototyping, System integration. Automated support. S/U or letter grading.


284B. Organization Development. (4) Discussion, three hours. Designed for graduate students. Analysis of effects of organizational and managerial practices on individual self-fulfillment and systems effectiveness. Theories of organization change and action/research methods in organization development. Theory merged with practice through seminar discussions of field experiences. May be repeated for credit. S/U or letter grading.

287. Groups and Their Facilitation. (4) Discussion, three hours. Designed for graduate students. Case study of groups, extending and consolidating behavioral science models of human process. Emphasis on group strategies, conflict resolution, and group development. S/U or letter grading.

288B. Current Issues in Sociotechnical Systems and Organization Design. (4) Discussion, three hours. Designed for graduate students. Current topics in analysis and design of sociotechnical systems engaged with various technologies and environments, emphasizing design approaches emanating primarily from Europe, the Orient, and the U.S. Investigation of case studies, consideration of organizational design cases. May be repeated for credit. S/U or letter grading.

288C. Selected Topics in Human Systems Studies and Organizational Behavior. (4) Lecture, three hours. Designed for graduate students. Psychological and social psychological aspects of human behavior and performance in organizations. Theoretical models, empirical findings, and research on topics such as attitudes and values, cognitive and perceptual processes, behavioral conflict, and individual change processes. May be repeated for credit. S/U or letter grading.

288D. Current Issues in Human Systems Change and Development through Consulting. (4) Discussion, three hours. Designed for graduate students. Series of presentational and experiential seminars and case studies in sociotechnical and organizational sciences, with focus on integrative themes or major issues in the field, designed to provide dialogue among students and faculty on significant topics, controversies, and leading-edge ideas. May be offered in one or successive terms and may be repeated for credit. S/U or letter grading.


M292A. Research and Development Policy. (4) (Formerly numbered 292A.) (Same as Policy Studies M280A.) Lecture, three hours. Examination of research and development as a process and as an element of interorganizational relationships. Emphasis on invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing and forecasting technological futures. S/U or letter grading.

M292B. Growth, Science, and Technology. (4) (Formerly numbered M202C.) (Same as Policy Studies 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 population of firms in existing industries. S/U or letter grading.

292C. Comprehensive Planning in Public Sector. (4) (Formerly numbered 292C.) (Same as Policy Studies M280B.) Lecture, three hours. Examination of research and development as a process and as an element of interorganizational relationships. Emphasis on invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing and forecasting technological futures. 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.


296A. International Business Management. (4) Discussion, three hours. Identification, analysis, and resolution of managerial issues of policy and action within context of a multinational corporation, with emphasis on problems of adaptation to different socio-cultural, legal, political, and economic environments. Emphasis on planning, organizing, and controlling within multinational firms. S/U or letter grading.

296B. International Comparative Management Research. (4) Designed for Ph.D. students. Identification of major issues in international business and comparative management. Emphasis on recent research developments and methodological issues. Imparts knowledge on design and conduct of international comparative management research.


297C. International Business Law. (4) Requisites: courses 205A, 296A. Legal environments in which international business operates; overseas business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patent, trademark, and copyright safeguards; arbitration of international business disputes; expropriation of foreign investments; international business and government relations.

297D. International Business Negotiations. (4) Requisite: course 296A. Exploration of international business negotiations of multinational enterprises with governments in business decisions involving the firm on a wide range of issues, such as establishment/disolution of joint ventures, extent of foreign ownership/management control, terms/conditions for technology transfer, investment incentives.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Requisite: course 205A or 405. Analysis of changing economic, political, demographic, and sociocultural conditions in developing countries as they affect the business environment. Process of economic growth, market-oriented reforms, and creation of domestic capital markets. Inflation and stabilization programs, identification of business risks and opportunities, as well as tools needed to manage firms under these conditions. S/U or letter grading.

298A. Special Topics in Management Theory. (4) Designed for Ph.D. students. Examination in depth of problems or issues of current concern in management theory. Emphasis on recent contributions to theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

298B. Special Topics in International and Comparative Management. (4) Designed for Ph.D. students. Examination in depth of problems or issues of current concern in international and comparative management. Emphasis on recent contributions to theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

298C. Special Topics in Sociotechnical Systems. (4) Designed for Ph.D. students. Examination in depth of problems or issues of current concern in sociotechnical systems. Emphasis on contributions to theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

298D. Special Topics in Management. (1 to 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 or letter grading.

298X-298Y-298Z. Management Strategy and Policy Workshops. (1-1-2) Discussion, three hours. Designed for Ph.D. students. Emphasis on research methodology and research. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U grading.


299R. Research Methods in Management. (4) Designed for Ph.D. students. Provides feedback and evaluation of papers prepared for research requirement. Quarterly meetings to discuss expectations of research committee and Doctoral Office. Students must enroll the term in which they are submitting their research paper. May be repeated for credit. S/U grading.

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

400. Mathematics for Management. (4) Designed for graduate students. Fundamental mathematics for business, including topics from matrix algebra, probability, and calculus, with applications to model building and decision making in business firms. S/U grading.

401A-401B. Managerial Problem Solving. (3-3) Discussion, three hours. Use of international business simulation and series of complex multifaceted cases to familiarize and manage M.B.A. core disciplines in real-world globally focused business problems. In Progress and letter grading.

402. Data Analysis, Statistics, and Decision Making. (4) Lecture, four hours; discussion, one hour (when scheduled). Designed for graduate students. Analysis of consumer, producer, and market behavior. Market structure, pricing, and resource allocation. Applications to management and public policy, with emphasis on competition, market power, and externalities.

406. Global Economy. (4) Requisites: courses 402, 403, 405. Provides analytical framework required for understanding the way changing macroeconomic conditions in world economy affect economic growth, inflation, interest rates behavior, exchange rate determination, global compensation, global investment, and the trade account. Provides skills to enable students to critically evaluate developments in world economy and assess critically importance of country industries. The Ph.D. Seminar: Research Methodology. (4) Discussion, three hours. Designed for Ph.D. students. Emphasis on research methodology and research. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U grading.

408. Managerial Finance. (4) Requisites: courses 402, 403, 405. Provides analytical framework required for understanding the way changing macroeconomic conditions in world economy affect economic growth, inflation, interest rates behavior, exchange rate determination, global compensation, global investment, and the trade account. Provides skills to enable students to critically evaluate developments in world economy and assess critically importance of country industries.

409. Managing Human Resources in Organizations. (4) Introduction to human resource management function and management of human behavior in organizations. Emphasis on relationships among individuals, groups, and organizational units as they influence the managerial process and development of prospective general managers.

410. Operations Technology Management. (4) Lecture, four hours. Requisites: courses 402, 403, 405. Principles and decision analysis related to effective utilization of factors of production in manufacturing and nonmanufacturing activities for both intermediate and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. S/U or letter grading.

412. Management of Organizations. (4) Lecture, three hours. Preparation: completion of first-year core program. Integrative approach to theory and practice of management of organizations emphasizing managerial roles in designing organizational structures, creating/maintaining planning, control, information, incentive systems, different patterns of human interaction such structures and systems tend to produce.


421A. Management Communications I. (1) Lecture, 30 minutes; laboratory, one hour. Strategies and techniques for more effective individually written managerial communications such as memos, reports, decision recommendations, etc. Emphasis on analytically based persuasive writing. S/U grading.

421B. Management Communications II. (1) Lecture, 30 minutes; laboratory, one hour. Strategies and techniques for more effective preparation of group writing assignments in managerial contexts where multiple audiences are important. Issues include achieving a single voice, establishing appropriate tone, incorporation of multiple points of view, etc. S/U grading.

422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and practice of oral and written management communications, including audience analysis, persuasion, revising and editing, presentation of technical information, and uses of computer technology. Organized around writing and speaking exercises. Personal attention of enrolled students’ written communications and oral presentations.

444A-444B. Management Field Study: Two-Quarter Plan. (4-4) Fieldwork, four hours. Must be taken in second and third terms (not part-time students). Supervised study of an organization, including establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. In Progress and S/U or letter grading.

445. Management Field Study: One-Quarter Plan. (8) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

451. Fieldwork in Organizational Development. (2 to 12) Fieldwork, to be arranged. Requisite: course 284B. Supervised practical fieldwork in organizational development consultation in interpersonal, group, intergroup, total organization, and interorganizational settings. S/U or letter grading.

452. Fieldwork in Technical Assistance for Minority Business Enterprise. (1 to 4) Preparation: completion of first year of master’s program. Supervised field experience and practical work in all phases of minority arts organization (pictorial, performing, or community), concentrating on its managerial problems and its relationship to the community and society in general.

454. Fieldwork in Organizations. (4) Fieldwork, to be arranged. Preparation: completion of two terms of M.B.A. program. Supervised, nonpaid practical experience or fieldwork in an organization as an intern or fellow. Execution of predetermined assignment(s) pursuant to a defined program of study which may include formal coursework. May not be repeated for credit. S/U grading.

457. Fieldwork in Investment Management. (4) Discussion, three hours. Use of academic theories learned in class and application to a real-world investment portfolio started with donated funds. Mirrors situations experienced by typical money management firms and includes investment strategy, asset allocation, security analysis, and organizational issues. S/U or letter grading.

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

596. Research in Management. (1 to 8) Directed individual study or research. May be repeated. S/U or letter grading.

597. Preparation for Qualifying Examinations. (4 or 12) Preparation for master's comprehensive examination or Ph.D. qualifying examinations.


Executive M.B.A. Program

461. Managerial Problem Solving. (2) Limited to Executive M.B.A. Program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting individual’s diagnostic and decision-making skills. Use of readings, cases, decision simulations, and discussions to explore areas of charting job and career progression, working with others, and shaping the work culture.


463. Data Analysis and Management Decisions under Uncertainty. (4) Limited to Executive M.B.A. Program students. Survey of statistical model building, with emphasis on managerial interpretation of statistical summaries of data. Involves statistical models covered through multiple regression to support courses in finance and marketing that follow. Fundamental approaches to decision making under uncertainty.


465. Quantitative Methods for Managers. (4) Limited to Executive M.B.A. Program students. Survey of modeling approaches to managerial planning and decisions. Emphasis on ability to recognize situations where models can be used advantageously, to work effectively with model-building specialists, and to make good use of models once they have been developed.

466A-466B. Financial Policy for Managers. (4-2) Limited to Executive M.B.A. Program students. Modern financial management deals with decision making under uncertainty for corporate financial management, for portfolio investment decisions, for financial institutions, and for international financial management. Focus on learning sound theoretical tools and applying them in casework.


468. Economic Forecasting. (2) Limited to Executive M.B.A. Program students. Macroeconomic theory and its application to business forecasting. Major economic indicators and their historical description of the U.S. economy; theoretical tools that business economists use to analyze impacts of monetary and fiscal policy; macroeconomic techniques applicable to business decisions.

469. Management of Human Resources. (4) Limited to Executive M.B.A. Program students. Introduction to major areas of human resource management — personnel management, labor economics, labor law, and labor relations — accomplished by examining some major concepts, theories, and research related to each of these topic areas, as well as some practical problems for managers posed by each.

470A. Introduction to Action Research and Policy Analysis. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Provides methods of organizational and strategic analysis to determine relationships of the organization with its environment. In Progress grading (credit to be given only on completion of course 470D).

470B. Strategic Overview. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Preparation of a strategic overview of a selected international company enabling 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 470D).

470C. Action Research Project. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Focus on research and analysis of strategic issues facing the selected company and identified in the strategic overview (course 470B). In Progress grading (credit to be given only on completion of course 470D).

470D. Seminar: Policy Analysis. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Site visit to selected company, presentation of final reports, and evaluation of student efforts by corporate personnel. S/U or letter grading.

472. Marketing Strategy and Policy. (4) Limited to Executive M.B.A. Program students. Strategic marketing decisions, including development of marketing objectives and strategies and implementation of these strategies through pricing, channel, promotion, and new product decisions.
473A. Managerial and Organizational Processes. (2) Lecture, four hours every other week for 13 weeks. Limited to Executive M.B.A. Program students. Macroanalytic issues, including intergroup relations, design and functioning of organizations, and relationships of organizations to their environment. S/U or letter grading.

473B. Customer Information Strategy. (2) Lecture, four hours every other week for 13 weeks. Limited to Executive M.B.A. Program students. Development of a customer orientation as a necessity for success in the highly competitive global marketplace, including principles of customer orientation, information as a strategic asset, customer equity, market forecasting, measuring effects of marketing investments, and customer response-based strategy. S/U or letter grading.


477. The Manager and Business/Society Relationships. (4) Limited to Executive M.B.A. Program students. While organizations may, to some extent, choose their immediate environments, there are broad environmental factors and trends that affect most, if not all, organizations. Examination of emerging trends in key areas of government regulation, labor relations, international trade, basic economic structure, and social responsibility.

478. Selected Topics in Management. (2 to 4) Seminar, 90 minutes to three hours. Limited to Executive M.B.A. Program students. Examination of selected problems and issues in an area of current concern in management. S/U or letter grading.

**Materials Science and Engineering**

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John J. Gilman, Ph.D.
Marek A. Przystupa, Ph.D.

Adjunct Assistant Professor
Eric P. Bescher, Ph.D.

**Scope and Objectives**

At the heart of materials science is an understanding of the microstructure of solids. “Microstructure” is used broadly in reference to solids viewed at the subatomic (electronic) and atomic levels, and the nature of the defects at these levels. The microstructure of solids at various levels profoundly influences the mechanical, electronic, chemical, and biological properties of solids. 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 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 undergraduate program leads to the Bachelor of Science degree in Materials Engineering. Students are introduced to the basic principles of metallurgy and ceramic and polymer science as part of the department’s 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 graduate program allows for specialization in one of the following fields: ceramics and ceramic processing, electronic and optical materials, and structural materials.

**Undergraduate Study**

**Materials Engineering B.S.**

The ABET-accredited 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.

**The Major**

Course requirements are as follows (182 or 183 minimum units required):

1. Five core courses: Chemical Engineering M105A (or Mechanical and Aerospace Engineering M105A), Civil and Environmental Engineering 108, Electrical Engineering 100, Materials Science and Engineering 14, Mechanical and Aerospace Engineering 102

2. Materials Science and Engineering 88 (2 units), 110, 110L, 120, 130, 131L, 132, 143A, 150, 160, 161L, 190, 191L; Mechanical and Aerospace Engineering 191A or 192A

3. Three elective courses from Chemical Engineering C114, Civil and Environmental Engineering 130, 130F, 135A, Electrical Engineering 2, 123A, 123B, 124, Materials Science and Engineering 111, 121, 122, 151, 161, 162, Mechanical and Aerospace Engineering 156A, 166C

4. One course from Electrical Engineering 131A or Mathematics 170A or Statistics 100A, plus 8 additional units from Chemis try and Biochemistry 30A, 30AL, Materials Science and Engineering 197, or by petition, upper division courses from engineering, intermediate or advanced foreign language, mathematics, or physical or life sciences. Intermediate foreign language courses may be lower division

5. Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 15 or Computer Science 31 or Mechanical and Aerospace Engineering 20; Materials Science and Engineering 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1)

6. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details

**Electronic Materials Option**

Course requirements are as follows (194 or 195 minimum units required):

1. Six core courses: Chemical Engineering M105A (or Mechanical and Aerospace Engineering M105A), Civil and Environmental Engineering 108, Electrical Engineering 10, 101, Materials Science and Engineering...
Upper Division Courses


110L. Introduction to Materials Characterization A Laboratory. (2) Laboratory, two hours; outside study, four hours. Requisite: course 14. Experimental techniques and analysis of materials through X-ray scattering techniques; powder method, line method, crystal structure determination, and special projects.

111. Introduction to Materials Characterization B (Electron Microscopy). (4) Lecture, three hours; laboratory, two hours. Requisites: courses 14, 110. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projection, direct observation of defects in crystals, replicas; scanning electron microscopy; emissive and reflective modes; chemical analysis; electron optics of both instruments. Letter grading.


121L. Materials Science of Semiconductors Laboratory. (2) Lecture, 30 minutes; discussion, 30 minutes; laboratory, two hours; outside study, three hours. Corequisite: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, and thin film biaxial modulus and CTE. Letter grading.


123. Electronic Packaging and Interconnection. (2) Lecture, two hours; outside study, six hours. Various electronic packaging methods and interconnection technologies. Design, fabrication, and testing of complex microelectronic components, interconnections, and assemblies. Letter grading.

130. Phase Relations in Solids. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 14, and Chemical Engineering M105A. Thermodynamics and Materials Science and Engineering 105A. Summary of thermodynamic laws, equilibrium criteria, solution thermodynamics, mass-action law, binary and ternary phase diagrams, glass transitions. Letter grading.

131. Diffusion and Diffusion-Controlled Reactions. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130. Diffusion in metals and ionic solids, nucleation and growth theory; precipitation from solid solution, eutectoid decomposition, design of heat-treatment processes of alloys, growth of intermediate phases, gas-solid reactions, design of oxidation-resistant alloys, recrystallization, and grain growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory, two hours; outside study, four hours, Corequisite: course 131. Design of heat-treating cycles and performing experiments to study interdiffusion, growth of intermediate phases, recrystallization, and grain growth in metals. Analysis of data. Comparison of results with theory. Letter grading.


150. Introduction to Polymers. (4) Lecture, three hours; laboratory, two hours. Polymerization mechanisms, molecular weight and distribution, chemical structure and bonding, structure-strength, and morphology and their effects on physical properties. Glassy polymers, springy polymers, elastomers, adhesives. Fiber forming polymers, polymer processing technology, plasticization. Letter grading.

151. Structure and Properties of Composite Materials. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 14, 130. Ceramics and glasses being used as important materials of engineering, processing techniques, and unique properties. Examples of design and control of properties for certain specific applications in engineering. Letter grading.


162. Electronic Ceramics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 14, Electrical Engineering 100. Utilization of ceramics in microelectronics; thick film and thin film resistors, capacitors, and substrates; design and processing of electronic ceramics and packaging; magnetic ceramics; ferroelectric ceramics and electro-optic devices; optical wave guide applications and design. Letter grading.

CM180. Introduction to Biomaterials. (4) Formerly numbered M180. (Same as Biomedical Engineering CM180.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 14, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry and repair and/or restoration of damaged natural tissue. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM280. Letter grading.


191L. Computer Methods and Instrumentation in Materials Science. (2) Lecture, two hours; outside study, four hours. Preparation: knowledge of BASIC or C or assembly language. Limited to junior/senior Materials Science and Engineering majors. Interface and control techniques, real-time data acquisition and processing, computer-aided testing. Letter grading.

197. Seminar: Technical Writing for Materials Engineers. (2) Seminar, two hours; outside study, four hours. Corequisite: course 132 or 190 or 598 or 599. Types of technical documents and basic document patterns. Document planning, paragraph and sentence structures. Illustration and references. Reports, theses, and proposals. Oral presentation. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to seniors. Individual investigation of selected topic to be arranged with a faculty member. Enrollment request forms available in department office. Occasional field trips may be arranged. May be repeated for credit. Letter grading.

Graduate Courses


223. Materials Science of Thin Films. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 131. Fabrication, structure, and property correlations of thin films used in microelectronics for data and information processing. Topics include film deposition, interfacial properties, stress and strain, electromigration, phase changes and kinetics, reliability, and chemical, mechanical, and environmental factors affecting thin film behavior. Letter grading.

224. Deposition Technologies and Their Applications. (4) Lecture, three hours; outside study, nine hours. Designed for graduate engineering students. Deposition techniques: physical vapor deposition, electron beam evaporation; sputtering; ion beam deposition; metalorganic chemical vapor deposition; plasma enhanced chemical vapor deposition. Applications in semiconductors, chemical, electrical, mechanical, and mechanical-lurgical industries. Letter grading.


243A. Fracture of Structural Materials. (4) Lecture, four hours; outside study, two hours; outside study, four hours. Requisite: course 143A. Engineering and scientific aspects of crack nucleation, slow crack growth and unstable fracture mechanics, dislocation models, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; outside study, eight hours. Requisite: course 111. Essential features of micromechanics, geometry of electron diffraction, kinematical and dynamical theories of electron diffraction, including anomalous absorption, applications of theory to defects in crystals. Modern phases, defects, Lorentz microscopy, laboratory applications of contrast theory. Letter grading.


246A. Mechanical Properties of Nonmetallic Crystalline Solids. (4) Lecture, four hours; outside study, eight hours. Letter grading.


CM280. Introduction to Biomaterials. (4) Same as Biomedical Engineering CM280. Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 14, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissue. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

296. Seminar: Advanced Topics in Materials Science and Engineering. (2) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in research specialty of faculty members teaching course. May be repeated for credit. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate materials science and engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a faculty member. Letter grade only. May be repeated for credit. Letter grading.

474A. Advanced Transportation Systems. (4) Lecture, four hours; outside study, eight hours. Survey of aerospace and advanced ground transportation systems, materials, structures, propulsion systems, control systems, communication systems, and infrastructure support. Letter grading.

475A. Manufacturing Processes. (4) Lecture, four hours; outside study, eight hours. Manufacturing properties of materials, thermomechanical processes, chemical and physical processes, material removal processes, packaging, fastening, joining and assembly, tooling and fixtures. Letter grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Petition forms to be submitted to assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (1 to 12) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.
597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.


599. Research for and Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

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**Mathematics**

**College of Letters and Science**

UCLA

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Luminita A. Vese, Ph.D.

Lecturer

Loong Kong, M.S.

Adjunct Professors

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Mark F. Gyure, Ph.D.

Adjunct Assistant Professors

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Marek Bliskup, Ph.D.
Patrick Brosnan, Ph.D.
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Doreen De Leon, Ph.D.
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Silke W. Rolles, Ph.D.
Marius Stefan, Ph.D.
Xiaowei Wang, Ph.D.
Thomas Watson, Ph.D.
Jue Yan, Ph.D.

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**Scope and Objectives**

Gauss has 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 provides 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**

**Admission**

Students entering UCLA directly from high school who declare one of the five mathematics majors offered by the department at the time they apply for admission are automatically admitted to that major.

UCLA students who wish to enter one of the mathematics majors must have a minimum grade of C– in each preparation for the major course completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed major courses must also average at least 2.0. Students with 60 or more units of credit must have completed at least 12 quarter units of calculus to enter any of the mathematics majors.

Transfer students must have a minimum grade of C in the equivalent of each preparation for the major course completed. Those transferring with 60 or more quarter units of credit must have completed at least 12 quarter units of calculus to enter any of the Mathematics Department majors.

**Preliminary Examination in Mathematics**

If students wish to enroll in Mathematics 1, 3A, or 31A, they must pass the Mathematics Diagnostic Test.

The examination may be taken at any one of several times, including all sessions of the summer Orientation Program. It is also given several times during the academic year. For specific dates and test locations, refer to the Schedule of Classes or the departmental website at http://www.math.ucla.edu/undergrad/diagnostic.html, or contact the Mathematics Student Services Office, 6356 Math Sciences.

**Advanced Placement in Calculus**

Students who have taken the Advanced Placement (AP) Calculus AB Test and obtained a score of 4 or 5 receive 4 units of credit and Mathematics 31A equivalency; those with a score of 3 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 4 or 5 receive 8 units of credit and Mathematics 31A, 31B equivalency; those...
with a score of 3 receive 8 units of calculus and analytic geometry credit. 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 3 on the AB or BC examination should consult 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) 3C, 32A; (4) 110A, 117.

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) Statistics 110A, 110B.

Mathematics 170A and Statistics 100A are not open for credit to students with credit for Electrical Engineering 131A.

Mathematics 2, 38A, 38B, and Statistics 10 are 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 and 151B are not open for credit to students with credit for Electrical Engineering 103.

Students may not take or repeat a mathematics 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 Mathematics 31B, they must do so before completing course 32A).

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).

Mathematics Upper Division Courses
Mathematics 113, 115A, 117, 131A, 132, 142, 151A, and 164 are offered each term. The remaining upper division courses are usually offered once or twice each year. The tentative class schedule for the forthcoming academic year is posted in the Student Services Office in February.

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, 20A, 20B, 20C, 30, 40A, 40B, and 60 are of interest to Letters and Science majors who are completing a specialization in Computing or who are planning to take upper division coursework in computer science. These students should seek the advice of their major department.

Undergraduate Majors
The department offers five majors: Mathematics, Applied Mathematics, Mathematics of Computation, Mathematics/Applied Science, and General Mathematics. The department also participates with the Economics Department in the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics major.

The Mathematics major is designed for students whose basic interest is mathematics; the Applied Mathematics major for those interested in the classical relationship between mathematics, the physical sciences, and engineering; the Mathematics of Computation major for individuals interested in the mathematical theory and the applications of computing; the Mathematics/Applied Science major for those with substantial interest in the applications of mathematics to a particular outside field of interest; and the General Mathematics major for students planning to teach mathematics at the high school level. As part of the Mathematics/Applied Science major, the department offers programs for students interested in the fields of actuarial science, management/accounting, mathematics/history of science, medical and life sciences, and operations research.

Courses taken to fulfill any of the requirements for any of the mathematics majors must be taken for a letter grade.

Mathematics B.S.
Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, Physics 1A, and two courses from Chemistry and Biochemistry 20A, 20B, Economics 1B, Life Sciences 1, Philosophy 31, 32, Physics 1B, 1C, 6B, 6C. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students
To be admitted as Mathematics majors, transfer students 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.

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, or 110A and 110B, differential equations — courses 135A and 135B; four courses from 106 through 199 and Statistics 100A through CM120B (appropriate courses from other departments may be substituted for some of the additional courses provided departmental consent is given before such courses are taken). The 12 courses must be passed with a minimum overall grade-point average of 2.0.

Mathematics of Computation B.S.
Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A, 10B, 10C, Physics 1A, 1B, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students
To be admitted as Mathematics of Computation majors, transfer students 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 mathematics course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

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 CM120B; three upper division com-
puter science courses (12 units). The 14 courses must be passed with a minimum overall grade-point average of 2.0.

Mathematics/Applied Science B.S.

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: actuarial plan, management/accounting plan, mathematics/history of science plan, medical and life sciences plan, or operations research plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics.

Students interested in designing an individual program should meet with the undergraduate adviser, 6356 Math 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.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses. Additional preparation, varying with the individual program, may be required.

Transfer Students

To be admitted as Mathematics/Applied Science majors, transfer students 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. Additional courses are required for each concentration plan.

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. The seven Mathematics Department courses must be passed with an overall grade-point average of 2.0, as must the seven courses outside mathematics.

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.

Actuarial Plan

Preparation for the Major


The Major

Required: Seven mathematics/statistics courses, including Mathematics 115A, 151A, 164, 170A and 170B or Statistics 100A and 100B or 110A and 110B, and two courses from Mathematics 106 through 199 and Statistics 100C through CM120A; six outside courses, including Economics 101, 102, 160, one course from Economics 141A through 148, and two courses from Economics 103 through 199 and English Composition 131A through 131D.

Management/Accounting Plan

Preparation for the Major


The Major

Required: Seven Mathematics Department courses, including Mathematics 115A, 131A, 164, 170A or Statistics 100A or 110A, Mathematics 170B or Statistics 100B or 110B, and two courses from Mathematics 106 through 199 and Statistics 100C; seven management courses, including Management 120A, 120B, 122, 140, 212A, 212B, and one additional course from 108 through 190.

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, 2D, 3A through 3D.

The Major

Required: Eight Mathematics Department courses, including Mathematics 106, 115A, 131A, 135A, 170A, and three courses from 110A through 199; six outside courses to be selected from History 195A through 195E, Philosophy 124, Physiological Science M168, and any upper division Honors Collegium course with history of science/medicine content.

Medical and Life Sciences Plan

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, Chemistry and Biochemistry 20A, 20B, or Program in Computing 10B, 10C, 30, 60. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students

To be admitted as General Mathematics majors, transfer students 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.

The Major

Required: Mathematics 110A or 117, 115A, 120A or 123, 170A or Statistics 100A or 110A, one course from 131A through 136, one course from 142 through 167, and six elective courses from 105A through 199 and Statistics 100B, 100C, CM120A, CM120B.
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. Consult the department for further information.

Computing Specialization
Majors in Mathematics, Applied Mathematics, Mathematics/Applied Science, or General Mathematics 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 113, Program in Computing 10A, 10B, two courses from 10C, 15, 20A, 20B, 30, 40, 60, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 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, consult the Department of Education at (310) 825-8328.

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 an overall grade-point average of 2.0 or better and meet with the undergraduate mathematics advisor in the Student Services Office, 6356 Math Sciences.

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.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.T.) degree and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Mathematics.

Mathematics

Lower Division Courses


3. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: three and one-half years of high school mathematics including trigonometry. Requisite: successful completion of Mathematics Diagnostic Test or course 1 with a grade of C– or better. Not open for credit to students with credit in another calculus sequence. Techniques and applications of differential calculus. Introduction to the integral. P/NP or letter grading.

4. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3A with a grade of C– or better. Techniques and applications of integral calculus, introduction to differential equations and vector calculus. P/NP or letter grading.

5. Mathematics and Science Scholars Excellence through Collaboration for Efficient Learners Workshop. (1) Discussion, four hours. Corequisite: associated mathematics/science course such as Mathematics 31A, 32B, etc. Preferential enrollment to students admitted to Mathematics and Science Scholars Program. Development of intuition and problem-solving skills in collaborative learning environment. Students must fulfill total of 30 hours to receive credit. May be repeated for credit with topic and/or instructor change. P/NP grading.

6. Calculus and Analytic Geometry. (4) Lecture, three hours; discussion, one hour. Preparation: at least three and one-half years of high school mathematics (including some coordinate geometry and trigonometry). Requisite: successful completion of Mathematics Diagnostic Test or course 1 with a grade of C– or better. Differential calculus and applications; introduction to integration.


8. Calculus and Analytic Geometry (Honors). (4) Lecture, three hours; discussion, one hour. Requisite: course 3A with a grade of C– or better. Transcendental functions; methods and applications of integration.

9. Calculus and Analytic Geometry (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 3B.

31E. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 31B with a grade of C– or better. Introduction to differential calculus of several variables, vector field theory. P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Requisite: course 31B with a grade of C– or better. Introduction to differential calculus of several variables, vector field theory. P/NP or letter grading.

32AH-32BH. Calculus of Several Variables (Honors). (4-4) Lecture, three hours; discussion, one hour. Requisite: course 31B with a grade of B or better. Honors sequence parallel to courses 32A, 32B.

32B. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Requisite: course 32A with a grade of C– or better. Introduction to integral calculus of several variables, line and surface integrals. P/NP or letter grading.

33A. Linear Algebra and Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 32A with a grade of C– or better. Introduction to linear algebra: linear maps, inner product spaces, determinants, eigenvalues, eigenvectors, systems. P/NP or letter grading.

33AH. Matrices and Differential Equations (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 33A. P/NP or letter grading.
33B. Infinite Series and Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisite: course 122A with a grade of C– or better. Infinite sequences and series; applications; solving first-order, highest-order constant coefficients; linear systems of differential equations. P/NP or letter grading.

33BH. Infinite Series (Honors). (4) (Formerly numbered 310H.) Lecture, three hours; discussion, one hour. Honors course parallel to course 33B. P/NP or letter grading.

35AH-35BH-35CH. Intermediate Calculus (Honors). (4-4-4) Lecture, three hours; discussion, one hour. Enrollment limited; course 31B. Introduction to matrix theory, differential equations, and systems of differential equations. Differential calculus of several variables. Integral calculus of several variables, vector field theory, line and surface integrals. P/NP or letter grading.

38A-38B-38C. Concepts of Elementary School Mathematics. (4-4-4) (Course 38B is formally numbered 104.) Lecture, four hours. Not open to freshmen.

110A-110B. Algebra. (4-4) Lecture, three hours; discussion, one hour. Enrollment limited; course 110B. Introduction to matrix theory, differential equations, and systems of differential equations. Differential calculus of several variables. Integral calculus of several variables, vector field theory, line and surface integrals. P/NP or letter grading.

110AH-110BH. Algebra (Honors). (4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B.

110C. Algebra. (4) Lecture, three hours; discussion, one hour. Requisite: course 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. Requisites: courses 110A or 110B, 117. Diophantine equations, selected topics in theory of primes, algebraic number theory, Diophantine equations.

M112. Introduction to Set Theory. (4) (Same as Philosophy M134.) Lecture, three hours; discussion, one hour. Requisite: course 110B or Philosophy 32. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

113. Combinatorics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 32B. Permutations and combinations, counting principles, recurrence relations and generating functions, combinatorial designs, graphs and trees, with applications including games of complete information. Combinatorial existence theorems, Ramsey theorem.

114A-114B. Logic and Computability. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Propositional and predicate logic; syntax and semantics; formal deductions; completeness and compactness; Herbrand expansions. Effectively computable, Turing computable, and recursive functions; functions computable by Turing machines; recursively enumerable sets. Recursive and recursively enumerable sets; recursive enumerability of valid sentences. Formal number theory; definability of recursive functions; incompleteness and undecidability: theorems of Gödel, Tarski, Church. P/NP or letter grading.

115A-115B. Linear Algebra. (4-4) Lecture, three hours; discussion, one hour. P/NP or letter grading.

115A. Requisite: course 33A. Abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigenvector theory. 115B. 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. Linear Algebra (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 115A.

116. Mathematical Cryptology. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 111.

135A-135B. Ordinary Differential Equations. (4-4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 32B. Basic procedures and techniques for solving differential equations; linearity, basis of solutions, variation of parameters, Green's function; systems of equations; constant coefficient equations, matrix differential equations, method of eigenvalues and eigenvectors. 135B. Requisite: course 135A. Laplace transform method; existence and uniqueness results; series solutions at regular singular points; Sturm-Liouville problems, orthogonal series, eigenfunction expansions in orthogonal bases. Fourier inversion formula, Plancherel theorem, convergence of Fourier series, convolution. P/NP or letter grading.

Applied Mathematics

142. Mathematical Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 32B. Introduction to fundamental principles and spirit of applied mathematics. Emphasis on manner in which mathematical models are constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

143. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 32B. Foundations of Newtonian mechanics, kinematics and dynamics of a rigid body, variational principles and Lagrange equations; calculus of variations, variable mass; related topics in applied mathematics.


167. Mathematical Game Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Quantitative modeling of strategic interaction. Topics include extensive and normal form games, background probability, lotteries, mixed strategies, pure and mixed Nash equilibria and refinements, bargaining; emphasis on economic examples. Optional topics include repeated games and evolutionary game theory. P/NP or letter grading.

Probability
170A. Probability Theory. (4) (Formerly numbered M170A.) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Not open to students with credit for Electrical Engineering 131A or Statistics 100A. Probability distributions, random variables and vectors, expectation, P/NP or letter grade.

170B. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 170A or Statistics 100A. Convergence in distribution, normal approximation, laws of large numbers, Poisson processes, random walks. P/NP or letter grade.

171. Stochastic Processes. (4) Lecture, three hours; discussion, one hour. Requisite: course 170A or Statistics 100A. Discrete Markov chains, continuous-time Markov chains, renewal theory. P/NP or letter grade.

172A-172B. Actuarial Mathematics. (4-4) Lecture, four hours. Letter grading. 172A. Requisite: course 170A or Statistics 100A. Mortality and annuitization, life annuities, pension applications. 172B. Requisite: course 172A. Multiple life functions, applications to life insurance, pensions, and health insurance.


Special Studies
190. Honors Mathematics Seminar. (4) Seminar, three hours. Participating seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition.

192. Problem Solving. (4) Lecture, three hours; discussion, one hour. Requisite: course 33B with a 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. Letter grading.

197. Advanced Topics in Mathematics. (4) Lecture, three hours. Variable topics course in mathematics that covers material not covered in regular mathematics upper division curriculum. May be repeated for credit with topic and/or instructor change. P/NP or letter grade.

199. Special Studies in Mathematics. (1 to 4) Discretion of chair and subject to availability of staff, individuals or groups may study topics suitable for undergraduate course credit but not specifically offered as separate courses. May be repeated for credit, but no more than one 199 course may be applied toward upper division courses required for a major offered by Mathematics Department.

Graduate Courses
Teacher Preparation
201A-201B-201C. Topics in Algebra and Analysis. (4-4-4) Preparation: bachelor's degree in mathematics. Designed for mathematics/education program students. Important ideas of algebra, geometry, and calculus leading effectively from elementary to modern mathematics. Approaches to number system, point sets, geometric interpretations of algebra and analysis, integration, differentiation, series and analytic functions. May not be applied toward M.A. degree requirements.


205A-205B-205C. Number Theory. (4-4-4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including ideal theory, valuation theory, local fields, p-adic 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. Requisites: courses 205A, 205B, 205C. Adeles definition of GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Arithmetic geometry, especially of modular curves. S/U or letter grading.


Algebra
210A-210B-210C. Algebra. (4-4-4) Requisites: courses 110A, 110B, 110C. Students with credit for courses 106B and/or 110C cannot receive M.A. degree credit for courses 210B and/or 210C. Group theory, including theorems of Sylow and Jordan/Holden/Schreier: rings and ideals, factorization theory in integral domains, modules over principal ideal rings, Ga-lois theory of fields, multilinear algebra, structure of algebras.

211. Structure of Rings. (4) Requisite: course 210A. Radical, irreducible modules, primitive rings, rings and algebras with minimum condition.

212. Homological Algebra. (4) Requisite: course 210A. Modules over a ring, homomorphisms and ten-

213A-213B. Theory of Groups. (4-4) Requisite: course 210A. Topics include representation theory, transfer theory, infinite Abelian groups, free products and presentations of groups, solvable and nilpotent groups, classical groups, algebraic groups.

214A-214B. Introduction to Algebraic Geometry. (4-4) Requisite: course 210A. Basic definitions and first properties of algebraic varieties in affine and projective space; irreducibility, dimension, singular and smooth points. More advanced topics such as sheaves and their cohomology, or introduction to the theory of Riemann surfaces, as time permits.

215A-215B. Commutative Algebra. (4-4) Requisite: course 210A. Topics from commutative ring theory, including techniques of localization, prime ideal structure in commutative Noetherian rings, principal ideal theorem, Dedekind rings, modules, projective modules, Serre conjecture, regular local rings.

216. Further Topics in Algebraic Geometry. (4) Requisites: courses 214A, 214B. Closer examination of areas of current research in algebraic geometry. Variable content may include algebraic surfaces, Abelian varieties, invariant theory, Hodge theory, or geometry over finite fields. May be repeated for credit by petition.

M217. Geometry and Physics. (4) (Same as Physics M236.) Lecture, three hours. Interdisciplinary course on topics at interface between physics quan-
tum fields and superstrings and mathematics of differ-
tial and algebraic geometry. Topics include super-
symmetry, Seiberg/Witten theory, conformal field the-
ory, Calabi/Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.
Logic and Foundations


222A-222B. Lattice Theory and Algebraic Systems. (4-4) Lecture, three hours. Requisite: course 210A. Partially ordered sets, lattices, distributivity; modularity; completeness; interaction with combinatory logic, topology, and logic; algebraic systems, congruence lattices, subdirect decomposition, congruence laws, equational bases, applications to lattices.

223A. Model Theory. (4) Requisites: courses 220A, 220B, 220C. Ultraproducts; ultrapower constructions; ultraproduct theorems; saturated models, omitting types, categoricity, two cardinal theorems, enriched languages, soft model theory, and applied model theory.

223B. Set Theory. (4) Requisites: courses 220A, 220B, 220C. Topics include constructibility theory, Cohen extensions, large cardinals, and combinatorial set theory.

223C. Recursion Theory. (4) Requisites: courses 220A, 220B, 220C. Topics include degrees of unsolvability, recursively enumerable sets, undecidable theories, inductive definitions, admissible sets and ordinals, and recursion in higher types.


Geometry and Topology

225A. Differentiable Manifolds. (4) Lecture, three hours. Requisites: courses 121, 131A, 131B. Smooth manifolds and maps, basic examples and properties, orientability, tangent and cotangent spaces, embeddings and immersions, Sard theorem and transversality, vector fields and integral curves, Lie brackets and Frobenius theorem, Lie derivative, tensors, differential forms and exterior derivative, Stokes theorem on manifolds.


225C. Further Topics in Geometry and Topology. (4) Lecture, three hours. Requisites: courses 225A, 225B. Topics include cohomology (singular, cellular, de Rham), duality theorems, de Rham theorem, degree theory, fiber products, characteristic classes, generalized homology and cohomology theories. Topics vary from year to year. May be repeated for credit by petition.

228A-228B. Dynamical Systems. (4-4) Lecture, three hours. Requisites: courses 227A, 227B. Fixed-point theory, fiber spaces and classifying spaces, differential topology. Topics vary from year to year. May be repeated for credit by petition.


234. Topics in Differential Geometry. (4) Lecture, three hours. Requisites: courses 226A, 226B. Topics in linear algebra, geometry and differential equations. Topics may 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, 225E. Topics in low-dimensional topology: covering spaces and group actions, dimension, fractal dimension, topological dimension. Topics vary from year to year. May be repeated for credit by petition.

236. Topics in Geometric Topology. (4) Lecture, three hours. Requisites: courses 225A, 225B. Deformation spaces, surgery theory, group actions, dimension, fractal dimension, topological dimension. 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. Requisites: recommended preparation: first-year analysis courses. Topics include qualitative theory of differential equations, bifurcation theory, and Hamiltonian systems; differential dynamics, including hyperbolic theory and chaotic dynamics; ergodic theory; low-dimensional dynamics. S/U or letter grading.

Analysis and Differential Equations


250C. Advanced Topics in Ordinary Differential Equations. (4) Requisites: courses 250A, 250B. Selected topics, such as spectral theory or ordinary differential operators, nonlinear boundary value problems, celestial mechanics, approximation of solutions, and Volterra equations.


251B-251C. Topics in Partial Differential Equations. (4-4) In-depth introduction to topics of current interest in partial differential equations or their applications.


253A-253B. Several Complex Variables. (4-4) Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C. Topics include domains of holomorphy, complex manifolds.

254A-254B. Topics in Real Analysis. (4-4) Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C. Topics in functional analysis and its applications to geometry and differential equations. Topics vary from year to year. May be repeated for credit by petition.

Functional Analysis


255B-255C. Topics in Functional Analysis. (4-4) Requisite: course 255A. Topics include Banach algebras, operators on Hilbert spaces and complex Hilbert space, semigroups of operators, linear topological spaces, and other related areas.

256A-256B. Topological Groups and Their Representations. (4-4) Lecture, three hours. Requisites: courses 245A, 245B, 245C. Topological groups and their representations. Duals and Fourier analysis on locally compact abelian groups. Induced representations. Peter-Weyl theorem and applications of special groups (Lorentz, Galilean, etc.). Representations of totally disconnected groups. S/U or letter grading.

Applied Mathematics


M261. Game Theory. (Same as Economics M214B and Political Science M208A.) Lecture, three hours. Designed for graduate economics, mathematicians, and political science students. Bargaining theory, the core, the value, other solution concepts. Applications to oligopoly, general exchange and production economies, and allocation of joint costs. S/U or letter grading.


266D-266E. Applied Differential Equations. (4-4) Requisites: courses 266A, 266B, 266C. Advanced topics in linear and nonlinear partial differential equations, with emphasis on energy estimates, numerical methods, and applications to fluid mechanics. Additional topics include dispersive waves, systems with multiple time scales, and applications to fluid mechanics.


270A. Techniques of Scientific Computing. Mathematical modeling for computer applications, scientific programming languages, software development, graphics, implementation of numerical algorithms on different architectures, case studies.

270B-270C. Computational Linear Algebra. Direct, fast, and iterative algorithms, overdetermined systems; singular value decomposition, regularization, sparse systems, algebraic eigenvalue problem.

270D-270E. Computational Fluid Dynamics. Basic equations, finite difference, finite element, spectral, and vortex methods; stability, accuracy, shock capturing, and boundary approximations.


271A. Tensor Analysis. (4) Requisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds. Curvilinear coordinates and coordinate free methods. Covariant differentiation. Green/Stokes theorem for differential forms. Applications to topics such as continuum and particle mechanics.


Probability and Statistics

275A-275B. Probability Theory. (4-4) Requisite: course 245A or 265A. Connection between probability theory and real analysis. Weak and strong laws of large numbers, central limit theorem, conditioning, ergodic theory, martingale theory.


275E. Stochastic Particle Systems. (4) Lecture, three hours. Requisite: course 275C. Interacting particle systems, including contact process, stochastic fixed point models, and exclusion processes; percolation theory. S/U or letter grading.


Special Studies

285A-285N. Seminars. (4 each) Seminar, three hours. No more than two 285 courses may be applied toward M.A. degree requirements except by prior consent of graduate vice chair. Topics in various branches of mathematics and their applications by means of lectures and informal conferences with staff members. S/U or letter grading.

285A. History and Development of Mathematics.

285B. Number Theory.

285C. Algebra.

285D. Logic.

285E. Geometry.

285F. Topology.

285G. Analysis.

285H. Differential Equations.

285I. Functional Analysis.


285K. Probability.

285N. Dynamical Systems.

290. Seminar: Current Literature. (4) Designed for Ph.D. students. Readings and presentations of papers in mathematical literature under supervision of a staff member.

296A-296N. Participating Seminars. (1 to 4 each) Seminars and discussion by staff and students. S/U grading.

296A. History and Development of Mathematics.

296B. Number Theory.

296C. Algebra.

296D. Logic.

296E. Geometry.

296F. Topology.

296G. Analysis.

296H. Differential Equations.

296I. Functional Analysis.

296J. Applied Mathematics.

296K. Probability.

296M. Mathematics.

296N. Dynamical Systems.
Lower Division Courses

1. **Introduction to Computers and Programming.** (4)
   Lecture, three hours; discussion, two hours. Recommended for students with some prior computer experience. Basic principles of programming, using a C-based language; procedural problem solving; program design and development; basic data structures and algorithms; functional arrays and pointers; introduction to classes for programmer-defined data types. S/P/NP grading.

2. **Advanced Topics in Programming.** (5)
   Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10A. Modern programming languages and paradigms. Functional programming with Haskell; object-oriented programming with Java; problem solving with constraints. S/P/NP grading.

3. **Advanced Topics in Programming for Internet.** (5)
   Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10A. Modern programming languages and paradigms. Functional programming with Haskell; object-oriented programming with Java; problem solving with constraints. S/P/NP grading.

4. **Introduction to Computer Systems.** (3)
   Lecture, three hours; discussion, one hour. Introduction to computer systems and architecture. Central processing units, memory architecture, input/output devices.

5. **Software Engineering.** (4)
   Lecture, three hours; discussion, one hour. Design, implementation, and testing of software. Course 10A highly recommended.

6. **Data Structures and Algorithms.** (4)
   Lecture, three hours; discussion, one hour. Review of basic data structures; arrays, stacks, queues, lists, trees. Advanced data structures; priority queues, heaps, balanced trees. Sorting, searching techniques. Corresponding algorithms. 97.

Upper Division Courses

110. **Parallel and Distributed Computing.** (5)
   Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10B or equivalent familiarity with programming in C or C++ language. Introduction to programming of parallel computers. Shared and distributed memory parallel architectures; currently available parallel machines; parallel algorithms and program development; estimation of algorithmic performance; distributed computing; selected advanced topics.

120. **Cryptography.** (4)
   Lecture, three hours; discussion, one hour; laboratory, three hours. Enforced prerequisite: course 10B. Design and analysis of cryptographic systems for security and authentication. Classical cryptosystems and their security, modern private-key cryptosystems and applications, public-key cryptography and applications; generating prime numbers, factorising integers, discrete logarithms, digital signatures, perfect secrecy. P/NP or letter grading.

197. **Advanced Topics in Programming.** (4)
   Lecture, three hours; discussion, one hour. Variable topics in programming and the mathematics of programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Courses

285C-285L. **Seminars.** (4 each)
   Considered equivalent to Mathematics 285A through 285N for purposes of degree requirements. Topics in various computational fields by means of lectures and informal conferences with staff members. S/U or letter grading.

285C. **Computational Algebra.**

285D. **Logic and Theory of Computation.**

285J. **Scientific Computing.**

285K. **Randomness and Computation.**

285L. **Computational Statistics.**

296. **Participating Seminar: Logic and Theory of Computation.** (1 to 4)
   Seminar and discussion by staff and students. S/U grading.

375. **Teaching Apprentice Practicum.** (1 to 4)
   Seminar and discussion by staff and students. S/U grading.
Scope and Objectives
In recent years economics has become increasingly dependent on mathematical methods, and the mathematical tools it employs have become more sophisticated. Mathematically competent economists, with bachelor’s degrees and with advanced degrees, are needed in industry and government. Graduate programs in economics and finance programs in graduate schools of management require strong undergraduate preparation in mathematics for admission.

The Mathematics/Economics B.S. degree program is designed to give students a solid foundation in both mathematics and economics, stressing those areas of mathematics and statistics that are most relevant to economics and the parts of economics that emphasize the use of mathematics and statistics.

Undergraduate Study
Mathematics/Economics B.S.
Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11, Program in Computing 10A. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students
To be admitted as Mathematics/Economics majors, transfer students 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, two principles of economics courses, one microeconomic theory course, and one C++ programming course.

The Major
Required: Seven mathematics/statistics courses, including Mathematics 115A, 131A, 170A or Statistics 100A, 170B or Statistics 100B, two courses from Mathematics 110A (or 117), 164, and 181, and one additional course from Mathematics 110B through 199 and Statistics 100C, CM120A, and CM120B; six economics courses, including Economics 101, 102, one additional course from 106A through 199, and one three-term sequence or group of courses from the following: (1) option A (mathematical finance) — courses 141A, 141B, 141C, (2) option B (econometrics/regression analysis) — courses 103, 143, 147A, or (3) option C (general mathematics/economics) — three courses from Economics 141A through 148 and Mathematics 181.

Mathematics 181 may not be applied toward both the option C requirement and the mathematics course requirements; Economics 141A or the 141A/141B sequence may be applied toward option C.

The 13 courses must be passed with a minimum overall grade-point average of 2.0.

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 with an overall grade-point average of 3.5 or better.

To qualify for honors at graduation, students must (1) complete Mathematics 110B or 131B, (2) prepare a senior thesis acceptable to the departmental honors committee, (3) present the thesis in Economics 195H, and (4) complete the major requirements with at least a 3.5 GPA in the mathematics and 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.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major and (2) completing Mathematics 61 or 113, Program in Computing 10A, 10B, two courses from 10C, 15, 20A, 20B, 30, 40, 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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Satya M. Alturi, Ph.D.
Oddvar O. Bendiksen, Ph.D.
Gregory P. Carman, Ph.D.
Albert Carnesale, Ph.D.
Ivan Catton, Ph.D.
Vijay K. Dhir, Ph.D.
Rajit Gadh, Ph.D.
Nasr M. Ghoniem, Ph.D.
James S. Gibson, Ph.D.
Vijay Gupta, Ph.D.
H. Thomas Hahn, Ph.D. (Raytheon Company Professor of Manufacturing Engineering)
Chin-Ming Ho, Ph.D. (Ben Rich Lockheed Martin Professor of Aeronautics)
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Robert E. Kelly, Sc.D.
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Tsu-Chin Tsoa, Ph.D.
Daniel C.H. Yang, Ph.D.
Xiaolin Zhong, Ph.D.

Professors Emeriti
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Philip F. O’Brien, M.S.
David Okrent, Ph.D.
Russell R. O’Neill, Ph.D.
Robert E. Kelly, Sc.D.

Vice Chair
Peter A. Monkewitz, Ph.D.
Michel A. Melkanoff, Ph.D.
Cornelius T. Leondes, Ph.D.
Albert Carnesale, Ph.D.

Associate Professors
Robert T. M’Closkey, Ph.D.
Xiang Zhang, Ph.D.

Assistant Professor
Laurent Pilon, Ph.D.

Lecturer
Ravinesh C. Amer, Ph.D.

Adjunct Professors
Leslie M. Lackman, Ph.D.
Neil B. Morley, Ph.D.
Scope and Objectives

The Mechanical and Aerospace Engineering Department encompasses professional disciplines that are often divided into separate departments at other engineering schools. Curricula in aerospace engineering and mechanical engineering are offered on both the undergraduate and graduate levels. The Gourman Report ranked UCLA's mechanical engineering program tenth in the nation for undergraduate programs.

Because of the scope of the department, faculty research and teaching cover a wide range of technical disciplines. Research in thermal engineering emphasizes basic heat and mass transfer processes as well as thermal hydraulics. Topics in the area of design, dynamics, and control include robotics, mechanism design, control and guidance of aircraft and spacecraft, aeromechanics, and dynamics and control of large space structures. Studies in structural mechanics range from fracture mechanics and wave propagation, structural dynamics and aeroelasticity of helicopters and jet engine blades, computational transonic aerelasticity to structural optimization and synthesis, and mechanics of composite structures. In the area of fluid mechanics and acoustics, investigations are under way on combustion, flow instabilities, turbulence and thermal convection, aeroacoustics, and unsteady aerodynamics of turbomachines, helicopter rotors, and fixed-wing aircraft. Other areas of research include applied plasma physics, surface modification by plasma, fusion reactor design, experimental tokamak confinement physics; light water reactor safety; reliability and risk assessment methodology; and nuclear materials. The department also has research activity in computer-aided design and manufacturing.

At the undergraduate level, the department offers accredited programs leading to Bachelor of Science degrees in Aerospace Engineering and in Mechanical Engineering. The former includes opportunity to emphasize propulsion, aerodynamics, design, dynamics and control, or structures and space technology, while the latter includes opportunity to emphasize design and manufacturing, dynamics and control, or fluids and thermal engineering.

At the graduate level, the department offers programs leading to M.S. and Ph.D. degrees in Mechanical Engineering and in Aerospace Engineering. An M.S. in Manufacturing Engineering is also offered.

Undergraduate Study

Aerospace Engineering B.S.

The ABET-accredited 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.

The Major

Course requirements are as follows (191 minimum units required):

1. Ten department core courses: Civil and Environmental Engineering 108, Electrical Engineering 100, Materials Science and Engineering 14, Mechanical and Aerospace Engineering 20, 102, 103, M105A, 105D, 157, 192A


3. Sixteen technical elective units (which should contain enough design units to satisfy the overall program requirement of at least 24 design units) selected from Mechanical and Aerospace Engineering 131A, 131AL, 132A, 133A, 133AL, 150C (heat and mass transfer, thermodynamics, combustion/propulsion); 153A (acoustics); 155, 163A, 169A (unless taken as part of the core), 171B, Civil and Environmental Engineering 137L, Electrical Engineering 142 (dynamics and control); Mechanical and Aerospace Engineering 156B, 166C, 168, 193, Civil and Environmental Engineering 130F (structural and solid mechanics); Mechanical and Aerospace Engineering 150R, 161A (unless taken as part of the core), 161B, 161C, 161D (space technology); 162A, 162C (design and mechanisms); Materials Science and Engineering 143A

4. Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details

6. Four free technical elective units selected from upper division courses offered by the department; students are strongly encouraged to consult their adviser

Mechanical Engineering B.S.

The ABET-accredited 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, with options in design and manufacturing, dynamics and control, and fluids and thermal engineering.

The Major

Course requirements are as follows (193 minimum units required):

1. Ten department core courses: Civil and Environmental Engineering 108, Electrical Engineering 100, Materials Science and Engineering 14, Mechanical and Aerospace Engineering 20, 102, 103, M105A, 105D, 157, 192A


3. Twenty technical elective units, to be selected from the following subject areas listed below, of which at least 12 units (including at least 4 laboratory units) should be from a single subject area:


4. Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL

5. HSSEAS general education (GE) requirements. See the College and Schools section of this catalog for details

6. Four free technical elective units selected from upper division courses offered by the department; students are strongly encouraged to consult their adviser

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In
Graduate Degrees
The Department of Mechanical and Aerospace Engineering offers the Master of Science (M.S.) degree in Manufacturing Engineering, Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Aerospace Engineering, and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Mechanical Engineering.

Mechanical and Aerospace Engineering

Lower Division Courses

20. Programming with Numerical Methods Applications. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Mathematics 33A, Physics 1A, or equivalent. (Same as Chemical Engineering 136.) Introduction to programming with MATLAB. Applications to numerical methods used in engineering. Letter grading.

94. Introduction to Computer-Aided Design and Drafting. (4) Lecture, two hours; laboratory, four hours. Fundamentals of computer graphics and two- and three-dimensional modeling on computer-aided design and drafting systems. Students use one or more on-line computer systems to design and display various objects. Letter grading.

Upper Division Courses
102. Mechanics of Particles and Rigid Bodies. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 33A, Physics 1A, or equivalent. Statics (statics and dynamics) of particles and rigid bodies. Fundamental concepts of mechanics. Statics, kinematics, and kinetics of particles and rigid bodies. Impulse/momentum and work/energy relationships. Applications. Letter grading.

103. Elementary Fluid Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Introductory course dealing with application of principles of mechanics to flow of compressible and incompressible fluids. Letter grading.

M105A. Introduction to Engineering Thermodynamics. (4) (Same as Chemical Engineering M105A.) Lecture, four hours; discussion, one hour; outside study, seven 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, one hour; outside study, seven hours. Requisites: courses 103, M105A, Mathematics 32B, 33A. Transport phenomena; heat conduction, mass and momentum, diffusion, convective heat and mass transfer, and radiation. Engineering applications in thermal and environmental control. Letter grading.


131AL. Thermodynamics and Heat Transfer Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 131A, 157. Experimental study of physical phenomena and engineering systems using modern data acquisition and processing techniques. Experimental studies of heat transfer phenomena and testing of a cooling tower, heat exchanger, and internal combustion engine. Students take and analyze data and discuss physical phenomena. Letter grading.


133A. Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 103, M105A, 105D. Applications of thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and nonreactive fluid flow systems. Letter grading.

133AL. Power Conversion Thermodynamics Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 133A, 157. Experimental study of power conversion and heat transfer systems using state-of-the-art plant process instrumentation and equipment. Experiments include studies of thermodynamic operating characteristics of an actual Brayton cycle, Rankine cycle, compressor refrigeration unit, and absorption refrigeration unit. Letter grading.

134. Design and Operation of Thermal and Hydraulic Power Systems. (4) Lecture, three hours; laboratory, three hours; outside study, six hours. Requisites: courses 133A, 133AL. Thermal hydraulic design, maintenance and operation of power systems, gas turbines, steam turbines, centrifugal refrigeration units, absorption refrigeration units, compressors, valves and piping systems, and instrumentation and control systems. Letter grading.

136. Thermal Hydraulics Design of Nuclear and Other Power Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for seniors. Thermal hydraulic design of nuclear and other power systems, power generation and heat removal, power cycle, thermal hydraulic component design, overall plant design, steady state and transient operation. Letter grading.

CM140. Introduction to Biomechanics. (4) (Formerly numbered M140.) Lecture, four hours; outside study, eight hours. Requisites: courses 102 (or Civil Engineering 108), 156A. Introduction to mechanical functions of human body; skeletal adaptations to optimally load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM240. Letter grading.


150P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, M105A. Thermodynamic properties of gases, aircraft jet engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Letter grading.

150R. Rocket Propulsion Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 103, M105A, 105D. Rocket propulsion concepts, including chemical rockets (liquid, gas, and solid propellants), hybrid rocket engines, electric (ion, plasma) rockets, nuclear rockets, and solar-powered vehicles. Current issues in launch vehicle technologies. Letter grading.


154A. Preliminary Design of Aircraft. (4) Lecture, four hours; outside study, eight hours. Requisites: course 154S. Classical preliminary design of an aircraft, including weight estimation, performance and stability, and control consideration. Term assignment consists of preliminary design of a low-speed aircraft. Letter grading.


194. Introduction to Geometry Modeling. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 20, 94. Fundamentals in parametric curve and surface modeling, parametric spaces, blending functions 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.


198. Special Studies in Mechanical and Aerospace Engineering. (2 to 4) Lecture, two to four hours; outside study, eight hours. Study of selected topics in mechanical and aerospace engineering taught by resident and visiting faculty members. P/NP or letter grading.

199. Special Studies. (2 to 8) Tutorial to be arranged. Limited to seniors. Individual investigation of selected topic to be arranged with a faculty member. Enrollment request forms available in department office. Occasional field trips may be arranged. May be repeated for credit. Letter grading.

Graduate Courses


231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis on fundamental concepts, including energy levels and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions, radiation in traditional and modern areas such as combustion and thermal insulation. Letter grading.


231D. Application of Numerical Methods to Transport Phenomena. (4) Lecture, four hours; outside study, eight hours. Requisite: course 132A. Numerical techniques for solving heat and mass transfer applications. Include convection, boundary layer flow, two-phase flow, separated flow, flow in porous media. Effects of concentration and temperature gradients, chemical reactions, radiation, electric and magnetic fields. Letter grading.


231F. Advanced Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 231A. Advanced topics in heat transfer from current literature. Linear and nonlinear theories of thermal and hydrodynamic instability; variational methods in transport phenomena; phenomenological theories of turbulence. Letter grading.

231G. Microscopic Energy Transport. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Heat carriers (photons, electrons, phonons, neutrons) and energy characteristics, statistical properties of heat carriers; scattering and propagation of heat carriers, Boltzmann transport equations, derivation of classical laws from Boltzmann transport equations, derivation from classical laws at small length scales. Letter grading.

232B. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 132A. Formulation of general convective heat and mass transfer problem, including equilibrium and nonequilibrium chemistry. Similar and nonsimilar solutions for laminar flows; solution procedures for turbulent flows. Multicomponent diffusion. Application to hypersonic boundary layer, ablation and transpiration cooling, combustion. Letter grading.

235A. Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 135, 192A. Underlying physics and mathematics of nuclear reactor (fission) core design. Diffusion theory, reactor kinetics, slowing down and thermalization, multigroup methods, introduction to transport theory. Letter grading.


239B. Seminar: Current Topics in Transport Phenomena. (2 to 4) Lecture, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, student presentations, and projects in areas of current interest in transport phenomena. May be repeated for credit. S/U grading.

239D. Seminar: Current 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 and current topics of one or more of heat and mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measurement techniques. May be repeated for credit with topic change. S/U grading.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced study in areas of current interest 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 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 study in areas of current interest in nuclear engineering, such as installations in burning plasmas, alternate fusion confinement concepts, inertial confinement fusion, fusion-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 Biomedical Engineering CM240.) Lecture, four hours; outside study, eight hours. Requisites: courses 102 (or Civil Engineering 108), 156A. Introduction to mechanical functions of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics of fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

250A. Foundations of Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 192B. Development and application of fundamental principles of fluid mechanics at graduate level, with emphasis on incompressible flow. Flow in pipes, 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 Flow Phenomena. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Fundamental principles of fluid dynamics applied to study of fluid resistance. States of fluid motion discussed in order of advancing Reynolds number; wakes, boundary layers, instability, transition, and turbulent shear flows. Letter grading.

250C. Compressible Flows. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Effects of compressibility in viscous and inviscid flows. Steady and unsteady inviscid subsonic and supersonic flows; method of characteristics; small disturbance theories (linearized and hyperbolic); shock dynamics. Letter grading.


250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 192B, 192C, 250A, 250B. Introduction to basic concepts and techniques of various spectral methods applied to solving partial differential equations. Particular emphasis on techniques of solving unsteady three-dimensional Navier/Stokes equations. Topics include spectral representation of functions, discrete Fourier transform, etc. Letter grading.
250F. Hypersonic and High-Temperature Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Recommended requisites: courses 155A, 150B, 192A, 192B, 192C. Special topics. Molecules, thermodynamics, and chemical and thermal processes, nonequilibrium flows of real gases, and computational fluid dynamics methods for nonequilibrium hypersonic flows. Letter grading.

251A. Stratified and Rotating Fluids. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Fundamentals of fluid flows with density variations or rotation, illustrated by examples with environments, experimental data, and theoretical predictions. Linear and finite amplitude wave motion. Flow past bodies; blocking phenomena. Viscous effects. Instabilities. Turbulent shear flows, wakes, plumes, and gravity currents. Letter grading.

252A. Stability of Fluid Motion. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Development of stability methods for finite amplitude disturbances of inviscid flows with rotation and shear instabilities; boundary layer instability. Nonlinear aspects: sufficient criteria for stability, subcritical instabilities, supercritical states, transition to turbulence. Letter grading.

252B. Statistical Theory of Turbulence. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Review of fluid mechanics and chemical thermodynamics applied to reactive systems, laminar diffusion flames, premixed laminar flames, stability, ignition, turbulent combustion, supercritical combustion. Letter grading.


252D. Combustion Rate Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 252C. Basic concepts in chemical kinetics: molecular collisions, distribution functions and averaging, semiempirical and ab initio potential surfaces, trajectory calculations; reaction rate theories. Practical examples of large-scale chemical mechanisms from combustion chemistry of several elements, etc. Letter grading.

253A. Advanced Engineering Acoustics. (4) Lecture, four hours; outside study, eight hours. Advanced studies in engineering acoustics, including three-dimensional wave propagation; propagation in bounded media; Ray acoustics; attenuation mechanisms in fluids. Letter grading.


254A. Special Topics in Aerodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B, 192A, 192B, 192C. Special topics. Advanced mechanisms of advanced aerodynamics. Examples include transonic flow, hypersonic flow, sonic booms, and unsteady aerodynamics. Letter grading.

255A. Advanced Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 189A. Variational principles and Lagrange equations. Kinematics and dynamics of rigid bodies; procession and nutation of spinning bodies. Letter grading.

255B. Mathematical Methods in Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255A. Concepts of stability; state-space integration; state space representation; linearization, and Liapunov direct method; the Hamiltonian as a Liapunov function; nonautonomous systems; averaging and perturbation methods of nonlinear analysis; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

256A. Mechanics of Deformable Solids. (4) (Formerly numbered 256A.) Lecture, four hours; outside study, eight hours. Requisite: course 256A. Kinematics of deformation, strain, tensors, invariance, compatibility; conservation laws; stress tensors; equations of motion; boundary conditions; constitutive equations: general theory, linearization, anisotropy; reciprocity linear isotropic elastic problems, plane and generalized plane problems; dynamic problems. Letter grading.

256B. Elasticity. (4) (Same as Civil Engineering M230B.) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Equations of linear elasticity; uniqueness of solution; Betti/Reyleigh reciprocity. Solution methods involving spheres and cylinders; special techniques for plane problems. Airy’s stress function, complex variable method, transform method; three-dimensional problems; theory of hysteresis; analysis of plane structures; boundary integral equations. Letter grading.


256F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 156A, 156B, or 166A, and Materials Science 243A. Review of modern fracture mechanics, elementary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; engineering applications in stiffened structures, pressure vessels, plates, and shells. Letter grading.


259A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Advanced studies of topics in fluid mechanics, with intensive student participation involving assignments in research problems leading to term paper or oral presentation (possible help from guest lecturers). Letter grading.

259B. Seminar: Advanced Topics in Solid Mechanics. (4) Seminar, four hours; outside study, eight hours. Advanced studies of various fields of solid mechanics on topics which may vary from term to term. Topics include dynamics, elasticity, plasticity, and stability of solids. Letter grading.

260. Current Topics in Mechanical Engineering. (2 to 4 Seminar, two to four hours; outside study, four hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, and student presentations and projects in areas of current interest in mechanical engineering. May be repeated for credit. S/U grading.


262. Mechanics of Intelligent Material Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A. Modeling, design, and implementation of active materials. Active systems design, inch-worm, and bimorph. Letter grading.

263A. Analytical Foundations of Motion Controllers. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A. Theory of motion control for modern computer-controlled machines; multi-axis computer-controlled machines; machine kinematics and dynamics; multi-axis motion coordination; coordinated motion with desired speed and acceleration; jerk analysis; motion command generation; theory and design of controller inter-polorators; motion trajectory design and analysis; geometry-speed-sampling time relationships. Letter grading.

263B. Spacecraft Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255A. Recommended: course 255B. Modeling, dynamics, and stability of spacecraft; spinning and dual-spin spacecraft dynamics; spinup through resonance, spinning rocket dynamics. Advanced studies in space modeling and model reduction of flexible space structures. Letter grading.


263D. Advanced Robotics. (4) Lecture, four hours; outside study, eight hours. Recommended preparation: courses 155, 163C, 171A, 263C. Motion planning and control of articulated dynamic systems: nonlinear joint control, experiments in joint control and multi-axis coordination, multisubody dynamics, trajectory planning, motion optimization, dynamic performance and manipulator design, kinematic redundancies, motion planning of manipulators in space, obstacle avoidance. Letter grading.

267A. Optimum Structural Design. (4) Lecture, four hours; outside study, eight hours. Sources and avoidance of locking, integration and field boundary element methods, finite volume methods, meshless methods, term projects using digital computers. Applications to aerospace and civil structures. Letter grading.

268B. Failure of Structural Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: Civil Engineering 135B. Exploration of a current area of research in deepwater structural engineering. Letter grading.


M269D. Aeroelastic Effects in Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M280A. Problems in the field of aeroelasticity such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, realizability, stabilization, design via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.


271B. Stochastic Estimation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, conditional mean and recursive estimators. Letter grading.


271D. Seminar: Special Topics in Dynamic Sys-tems Control. (4) Seminar, four hours; outside study, eight hours. Seminar on current research topics in dynamic systems modeling, control, and applications. Topics selected from process control, differential games, nonlinear estimation, adaptive filtering, industrial and aerospace applications, etc. Letter grading.


275A. System Identification. (4) Lecture, four hours; outside study, eight hours. Methods for identifi-cation 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 include transfer functions and state-space models. Design of feedback control using model. Letter grading.


280L. Microelectromechanical Systems (MEMS) Laboratory. (4) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisite: course 180. Hands-on micromachining. Mask layout, clean room procedure, lithography, oxidation, LPCVD coatings, evaporation, wet etching (both isotropic and anisotropic), dry etchings, process monitoring. Students fabricate simple micromechanical devices by both surface and bulk micromachining and test and characterize them. Letter grading.

281. Microsciences. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A, 150A. Basic science issues in micro domain. Topics include micro fluid science, microscale heat transfer, mechanical behavior of microstructures, as well as dynamics and control of micro phenomena. Letter grading.


283. Experimental Mechanics for Microelectrome-chnical Systems (MEMS). (4) Lecture, four hours; outside study, eight hours. Methods, techniques, and philosophies being used to design microelectromechanical systems for engineering applications. Material characterization, mechanical/material properties, mechanical characterization. Topics include fundamentals of crystallography, anisotropic material properties, and mechanical behavior (e.g., strength/ fracture/toughness) as they relate to microscale. Consideration of future emerging experimental approaches to assess design-relevant mechanical properties. Letter grading.


294. Computational Geometry for Design and Manufacturing. (4) Lecture, four hours; outside study, eight hours. Requisite: course 194. Computational geometry for design and manufacturing, with special emphasis on curve and surface theory, geometric modeling of curves and surfaces, B-splines and NURBS, composite curves and surfaces, computing methods for surface design and manufacture, and current research topics in computational geometry for CAD/CAM systems. Letter grading.


296B. Thermochemical Processing of Materials. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 193. Thermodynamics, heat and mass transfer, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, moving interfaces and heat sources, natural convection, nucleation and growth of microstructure, etc. Applications with chemical vapor deposition, infiltration, etc. 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.

M299A. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M297 and Electrical Engineering M248S.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

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

474B. Concurrent Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: Materials Science 474A. Product design, CAD/CAM, engineering analysis integration, project management, Letter grading.

474C. Total Quality Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 474B. Total quality management, statistics, probability, off-line quality control, online quality control, quality inspection. Letter grading.


478. Integrated Manufacturing Engineering (IME) Group Project Studies. (1 to 2) Lecture, one hour; group projects, one to 12 hours. Teams of students perform detailed analyses to address problems presented and implement manufacturing solutions within industrial settings. S/U grading.

497A-497B. Field Project in Manufacturing Engineering. (4-4) Lecture, two hours. Teams of students perform detailed system analysis and plan design of manufacturing engineering systems at various manufacturing plants. In Progress and S/U or letter grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Petition forms to request enrollment may be obtained from assistant dean. Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Reading and preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Supervised independent research for M.S. candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of Ph.D. 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.

Scope and Objectives

The principal goal of the Department of Medicine is to educate students in the expert diagnosis and compassionate management of human illness. Building on the biochemical, physiological, and behavioral foundations of the preclinical experience, students are taught information acquisition through history taking, physical examination, and laboratory evaluation; information synthesis through achieving a differential diagnosis and evaluative plan; and medical decision making for continued evaluation and therapy. Students are encouraged and guided in developing a caring physician/patient relationship.

Instruction in the department is provided in the second, third, and fourth years of medical school, with the third and fourth years constituting a continuum of clinical experience. Students become integrated into a ward team and have significant ambulatory care experiences. They apply and extend their clinical skills, medical knowledge, and judgment in the care of patients assigned to them under the immediate supervision of house officers and attending staff.

The department offers a broad range of advanced clinical clerkships in general and subspecialty ambulatory and hospital-based internal medicine at all the major affiliated centers. For further details on the Department of Medicine and a listing of the courses offered, see http://www.med.ucla.edu.

Medicine

Lower Division Course

98. Cultural Aspects of Medicine. (4) Seminar, four hours. Enforced requisite: satisfaction of Subject A requirement. Introduction to issues related to interpreting and cultural diversity in hospital setting. Through interactive discussions, faculty presentations, and visiting hospital patients, students learn about different cultures and how specific cultural customs and/or cultural beliefs can impact patients' health and healthcare. Focus on teaching proper ways to communicate with patients from different cultures. Letter grading.
Upper Division Courses

190A. Health Outreach Issues and Interventions for At-Risk Populations: Prefield Course. (4) (Formerly numbered M190A.) 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.

190B. Field Studies Seminar: Health Outreach Issues and Interventions. (4) (Formerly numbered M190B.) Seminar, two hours; discussion, two hours. Requisite: course 190A. 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.

190C. Health Outreach and Education to At-Risk Populations. (4) Discussion, two hours; fieldwork, six to eight hours. Requisites: courses 190A, 190B. Processes involved with designing, delivering, and assessing community health education programs, under supervision of professional staff. P/NP or letter grading.

M196B. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Biomedical Engineering M196B, Computer Science M196B, and Cybernetics M196B.) Lecture, four hours; discussion, one hour; laboratory, two hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to dynamic system modeling, compartmental modeling, and computer simulation methods for studying biomedical systems. Basics of numerical simulation algorithms, translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

199. Special Studies. (2 to 8) Individual projects carried out under direction of a faculty member. Special studies in medicine with appropriate objectives, readings, laboratory work, or other assignments designed for proper training of students. P/NP or letter grading.

Graduate Courses


M260A-M260B. Methodology in Clinical Research I, II, (6-6) (Same as Biostatistics M260A-M260B.) Lecture, three hours; discussion, two hours. Recommended preparation: M.D., Ph.D., 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.

M260C. Methodology in Clinical Research III. (4) (Same as Biostatistics M260C) Discussion, four hours. Recommended preparation: M.D., Ph.D., 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. Ethics in Patient-Oriented Research. (2) (Same as Biostatistics M261.) Lecture, two hours; discussion, two hours. Discussion of current issues in clinical trials and the 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; discussion, one hour; laboratory, two hours. Application of pharmacokinetic and pharmacodynamic principles to the clinical management of patients. Letter grading.

M270C. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Biomedical Engineering M296A and Computer Science M296A.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartamental, 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 Biostatistics M270, Biomedical Engineering M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Biostatistics M220. Estimation methodology and model parameter estimation algorithms for fitting mathematical 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.


M290A-M290B. Child Abuse and Neglect. (2-2) (Same as Community Health Sciences M245A-M245B.) Lecture, two hours; discussion, two hours. Recommended preparation: M.D., Ph.D., 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.

Scope and Objectives

Microbiology at UCLA is a diverse science that includes bacteriology, virology, immunology,
Microbiology, Immunology, and Molecular Genetics / 405

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 opportunities for study in the basic biological fields of genetics and cellular and molecular biology.

Undergraduate students majoring in Microbiology, Immunology, and Molecular Genetics prepare for careers in biomedical research, medicine, dentistry, or other health professions, biotechnology and genetic engineering, industrial microbiology, agricultural or environmental sciences, public health, and law or bioethics, among others. The courses presented by the department lead to a Bachelor of Science degree and depend heavily on preparation in the biological sciences, chemistry, physics, and mathematics.

The program emphasizes the areas of molecular genetics, cell biology, immunology, cell and virus structure and morphogenesis, animal virology, general bacteriology and physiology, host-parasite relationships, medical microbiology, microbial genetics, and recombinant DNA research. Students are prepared for creative research careers in all of these fields. The objective of the department is to provide breadth in microbiology, immunology, and molecular genetics at the undergraduate level and depth and training in independent study and research for graduate students.

Undergraduate Study

Microbiology, Immunology, and Molecular Genetics B.S.

Premicrobiology, Immunology, and Molecular Genetics Major

While students are completing the preparation courses for the major, they are classified as Premicrobiology, Immunology, and Molecular Genetics majors.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

All core curriculum courses must be passed with a grade of C- or better and 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

To be admitted as Microbiology, Immunology, and Molecular Genetics majors, transfer students 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, 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.

Students intending to major in Microbiology, Immunology, and Molecular Genetics may seek counseling and petition to enter the major in the Student Affairs Office, 1602A Molecular Sciences.

The Major

Required: Microbiology, Immunology, and Molecular Genetics 101, 101L, 102, 102L, C159, 185A; Chemistry and Biochemistry 153A, 153C, 153L; one course from Chemistry and Biochemistry 153B, Microbiology, Immunology, and Molecular Genetics C106, CM156, and C168; and 16 additional upper division elective units from the departmental list (available in the Students Affairs Office and at http://www.immig.ucla.edu) or from related departments selected with approval of the faculty advisor. All major courses must be taken for a letter grade, with a minimum overall grade point average of 2.0 grade-point average in the major. A maximum of 4 units of Microbiology, Immunology, and Molecular Genetics 199, taken for a letter grade, may be applied toward the major. Credit for 199 courses from other departments may not be applied.

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 advisor from the department. The core of the program consists of three terms (minimum) in Microbiology, Immunology, and Molecular Genetics 199H research, culminating in a thesis. If the thesis is accepted by the honors committee, students are awarded the bachelor's degree with departmental honors. The department also offers an honors seminar course each Winter Quarter which is required for the honors program. For further information, contact the Student Affairs Office, 1602A Molecular Sciences.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Microbiology, Immunology, and Molecular Genetics.

Microbiology, Immunology, and Molecular Genetics

Lower Division Courses

6. Introduction to Microbiology. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 101 or Life Sciences 2. Designed for nontechnical students; introduction to biology of microorganisms (bacteria, viruses, protozoa, algae, fungi), their significance as model systems for understanding fundamental cellular processes, and their role in human affairs. P/NP or letter grading.

7. Developments in Biotechnology. (4) Lecture, three hours; demonstration/laboratory, one hour. Recommended preparation: course 6 or Life Sciences 2. Not open for credit to students with credit for course 101 or Life Sciences 3. Survey of recent developments in biotechnology, with emphasis on use of single-celled organisms. Review of basic principles of microbiology as they apply to biotechnology and examination of wide variety of topics, including alternate energy sources, pollution control, genetic fingerprinting, genetic engineering, and agricultural and food microbiology. P/NP or letter grading.

12. Biological Threats to Society: Bioterrorism and Emerging Infections. (4) Lecture, four hours. Examination of biological threats to American society. Coverage of biological weapons going back to first attempts to use microbes or toxins as weapons, and of emerging infections. Introduction to basic biology to understand infectious disease. P/NP or letter grading.

Upper Division Courses


101L. Microbiology Laboratory. (3) Lecture, one hour; laboratory, five hours. Requisites: Chemistry 153A, Life Sciences 3, 4. Corequisite: course 101 (or 101 with a grade of C or better if previously taken). General laboratory techniques and theory in microbiology and molecular genetics, including isolation and identification of bacterial species from nature, transformation of Escherichia coli. Ames test, analysis of auxotrophic mutants. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, with grades of C or better. Recommended: Chemistry 153A. Recommended corequisite: course 102L. Biological properties of bacterial and animal viruses, replication, methods of detection, interactions with host cells and multicellular hosts. Letter grading.

102L. Virology Laboratory. (2) Discussion, one hour; laboratory, four hours. Requisites: Life Sciences 3, 4, with grades of C or better. Corequisite: course 102 (or 102 with a grade of C or better if previously taken). General laboratory techniques and theory in virology, including complementation, recombination, transduction, experiments in animal virology using tissue culture. Letter grading.


C120. Advanced Techniques in Microbiology. (4) (Formerly numbered 120.) Lecture, one hour; labora- tory, six hours. Requisite: course 101L or 102L, with a grade of B or better. Current recombinant techniques. Experiments include PCR, cloning, and other recombinant techniques. DNA binding recombinant protein is purified from *Escherichia coli* and its ability to bind to DNA studied using gel shifted assay. Introduction to protein-protein interaction using yeast two-hybrid system and to tissue culture tech- niques and transfection and expression of genes for human light and heavy chain antibody. Concurrently scheduled with course C220. Letter grading.


C133. Principles of Research, Practices, and Policies in Bio- technology. (2) (Formerly numbered CM133.) Lec- ture, three hours. Requisites: Chemistry 153A and 153B, or Life Sciences 3 and 4, with a grade of B or better. Designed for juniors/seniors. Life and physical sciences majors and students in the School of Law and Anderson Graduate School of Management may find course useful in career preparation. Presentation of technologies, regulatory practices, and policies re- quired for product development and review of current opportunities for new technology development. Topics include fermentation processes, pilot and large-scale bioprocess technologies, peptide mimetics and rational drug de- sign, medical and microscopic imaging, and intellec- tual property issues. Concurrently scheduled with course C233. P/NP or letter grading.

C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for a biomedical individual study- ies 199 course. Responsibilities and ethical conduct of investigators in research, data management, men- tonship, grant applications, and publications. Respon- sibilities to patients, institutions, and society. Conflicts of interest, disclosure, animal subject wel- fare, human subject protection, and areas in which in- vestigational goals and certain societal values may conflict. Concurrently scheduled with course C234. P: NP grading.

CM156. Human Genetics. (4) (Same as Human Ge- netics CM156 and Molecular, Cell, and Developmen- tal Biology CM156.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Strongly recommended: Molecular, Cell, and Developmental Biology 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genet- ics, and family studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

C159. Advanced Molecular Genetics. (5) Lecture, three hours; discussion, two hours. Requisites: Chemistry 153A, 153B. Integration of conceptual- analysis of classical and modern molecular ge- netics of microbes, with coverage of key papers from elucidation of genetics code to the present. Essential elements of experimental design, analysis of results, and scientific logic. Concurrently scheduled with course C259. Letter grading.

C168. Molecular Parasitology. (4) (Formerly num- bered CM168L.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, Survey of para- sitic protozoa not only as parasites which interact with a host, but also as model systems for analysis of ba- sical biological phenomena such as gene regulation, molecular development, cell-cell interactions, molecu- lar evolution, and novel biochemical pathways. Con- currently scheduled with course C268. Letter grading.

C174. Advanced Topics in Molecular Parasitology. (2) (Formerly numbered Molecular, Cell, and Devel- opmental Biology C174F.) Lecture, two hours. Exami- nation of recent advances in molecular biology of par- asites and host-parasite relationship. Specific topics include parasite development, antigenic variation in trypanosomes, RNA editing, prospects for parasitic vaccines. Concurrently scheduled with course C274. Letter grading.

CM176. Advanced Topics in Animal Virus/Host In- teraction. (4) (Formerly numbered M176.) (Same as Molecular, Cell, and Developmental Biology CM176.) Lecture, four hours; discussion, one hour. Requisites: Life Sciences 3, 4, Recommended: course 102 or Chemistry 153B or Molecular, Cell, and Developmen- tal Biology 144. Recent advances in fields of inter- action of hosts with animal viruses. Emphasis on molecular and cellular approaches to understand host-virus interaction at level of entry, replication, as- sembly, and release of virus. Concurrently scheduled with course CM276. P/NP or letter grading.

CM178. Molecular Genetics. (6) (Same as Biologi- cal Chemistry CM178, Human Genetics CM178, and Molecular, Cell, and Developmental Biology CM178.) Lecture, five hours. Requisites: Chemistry 153A, 153B, Life Sciences 3, 4, Molecular, Cell, and Develop- mental Biology 100 or C139 or M140. Basic con- cepts in modern genetics, with examples from both eukaryotic and prokaryotic systems. Emphasis on use of genetic techniques for addressing fundamental questions of eukaryotic cell regulation and gene expres- sion, repair, recombination, transposition, ge- netic regulation, developmental genetics, neurogenet- ics, and immunogenetics. Concurrently scheduled with course CM246. Letter grading.

CM185A. Immunology. (5) (Formerly numbered M185A.) Lecture, three hours; discussion, 90 min- utes. Requisites: Life Sciences 3, 4, Recommended requisites or corequisites: Chemistry 153A, 153L, Molecular Biology 144, 145. Recent advances in fields of immu- nology, including virology. Recommended for ad- vanced undergraduate students. Requisites or corequisites: Chemistry 153A, 153B, Life Sciences 3, 4, Molecular, Cell, and Developmental Biology CM176.) Lecture, one hour. Requisites: Chemistry 153A, 153B, Life Sciences 3, 4, Molecular, Cell, and Develop- mental Biology 185A. Introduction to experimental immunochemistry. Recent advances in immunochemistry; cellular and molecular aspects of humoral and cellular immune re- actions. Letter grading.

C185B. Intermediate Immunology. (4) (Formerly numbered CM185B.) Lecture, three hours; discus- sion, one hour. Requisites: course 185A or Molecular, Cell, and Developmental Biology C180. Recommended corequisite: Chemistry 153B. In-depth exploration of topics introduced in course 185A. Concurrently scheduled with course C285. Letter grading.

192. Teaching Practicum in Microbiology, Immuno- nology, and Molecular Genetics. (1 to 4) Tutorial, to be arranged. Limited to junior/senior Microbiology, Immunology, and Molecular Genetics majors. Training and supervised practicum for advanced undergradu- ates in teaching courses related to microbiology, im- munology, and molecular genetics. Students assist in preparatory courses for advanced undergraduate inno- tive programs under guidance of faculty and teaching assistants. Copy of report describing the research project under direct supervision of depart- ments. Requisites. Concurrently scheduled with course C106. Letter grading.

C207. Viral Pathogenesis. (2) Lecture, two hours; discussion, one hour three times per quarter. Requi- site: course 185A. Strongly recommended: course 102, Chemistry 153B. Viral pathogens that infect mammals. Viral entry into and replication in host cells. Host response and host-virus interaction. Pathogenic manifestations exhibited during viral infections. Con- currently scheduled with course C107. Letter grading.

M208. Molecular Biology of Animal Viruses. (4) (Formerly numbered Microbiology and Immunology M208.) (Same as Molecular, Cell, and Developmental Biology CM279.) Lecture, three hours. Preparation: courses in general biochemistry and general microbi- ology, including virology. Recommended for ad- vanced undergraduate students with a major in public health, biology, or microbiology and for graduate stu- dents from immunology courses in any field of biology or chemistry. Overview of animal viruses, including viral structure, viral interaction, viral replication, and viral onco- genesis. Special emphasis on understanding the mo- lecular mechanism involved in control and regulation of replication, transcription, and translation of virus ge- nomes and its complex interaction with host. Letter grading.


Graduate Courses

201. Microbiology and Immunology. (10) (Former- ly numbered Microbiology and Immunology 201.) Lecture, six hours; laboratory, nine hours. Limited to medical students. Study of infectious agents of hu- man disease, with emphasis on host-parasite rela- tionships and immunologic phenomena in immunity and disease, including identification of bacteria, fungi, animal parasites, and viruses, and principles of pre- vention, treatment, and laboratory diagnosis. S/U or letter grading.


C220. Microbial Pathogenesis. (4) (Formerly numbered Microbiology and Immunology 220.) Lecture, one hour, laboratory, nine hours. Limited to medical students. Study of infectious agents of hu- man disease, with emphasis on host-parasite rela- tionships and immunologic phenomena in immunity and disease, including identification of bacteria, fungi, animal parasites, and viruses, and principles of pre- vention, treatment, and laboratory diagnosis. S/U or letter grading.

C220. Advanced Techniques in Microbiology. (4) Lecture, one hour; laboratory, six hours. Requisite: course 101L or 102L, with a grade of B or better. Introduction to current recombinant techniques. Experiments include PCR, cloning, and other recombinant techniques. DNA binding recombinant protein is purified from Escherichia coli. DNA studied using gel electrophoresis. Introduction to protein/protein interaction using yeast two-hybrid system and to tissue culture techniques and transfection and expression of genes for human light and heavy chain antibody. Concurrently scheduled with course C120. Letter grading.

223. Membrane Research Seminar. (2) (Formerly numbered M223.) Seminar, two hours. Critical discussions of current literature in membrane research, with emphasis on relationships between structure and function in lipid bilayers. May be repeated for credit. S/U or letter grading.

M229. Cellular Biology of Host/Pathogen Interactions. (6) (Same as Molecular, Cell, and Developmental Biology M229.) Lecture, four hours; discussion, 90 minutes. Requisite: Biological Chemistry CM253. Molecular and cellular biology of pathogens, eukaryotic host cells, and interaction between pathogens and host. Letter grading.


C233. Principles, Practices, and Policies in Biotechnology. (2) (Formerly numbered CM233.) Lecture, four hours; discussion, two hours. Requisites: Chemistry 153A and 153B, or Life Sciences 3 and 4, with grades of B or better. Designed for graduate students. Life and physical sciences majors and students in the School of Law and Anderson Graduate School of Management may find course useful in career preparation. Presentation of technologies, regulatory practices, and policies required for product development and review of current opportunities for new technology development. Topics include fermentation processes, pilot and large-scale bioprocess technologies, scaleup strategies, industrial recombinant DNA processes, hybridomas, protein engineering, peptide mimetics and rational drug design, medical and microscopic imaging, and property issues. Concurrently scheduled with course C133. S/U or letter grading.

C234. Ethics and Accountability in Biomedical Research. (2) (Formerly numbered CM234.) Seminar, two hours. Designed for graduate students and undergraduates who have credit for a life sciences or biomedical individual studies 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. Concurrently scheduled with course C134. S/U grading.

M240. Cytokines and Reproductive Biology. (2) (Same as Molecular, Cell, and Developmental Biology M240.) Lecture, three hours; discussion, one hour. Overview of current progress on research in cytokines and other immune system molecules in reproductive biology. S/U or letter grading.

242. Seminar: Microbial Molecular Genetics. (2) Seminar, two hours. Student and instructor presentations and critical discussions of newly emerging concepts in prokaryotic and/or eukaryotic molecular genetics. Emphasis on nature of the gene and control of gene expression. May be repeated for credit. S/U or letter grading.

CM248. Molecular Genetics. (6) (Formerly numbered M248B.) (Same as Biological Chemistry CM248, Human Genetics CM248, and Molecular, Cell, and Developmental Biology CM248.) Lecture, five hours; discussion, one hour. Requisite: Biological Chemistry CM153G or Chemistry CM153G. Basic concepts in modern genetics, with examples from both eukaryotic and prokaryotic systems. Emphasis on use of genetic tools for addressing fundamental questions in cellular biochemistry. Topics include mutagenesis, repair, recombinational DNA stability, mRNA transport, RNA editing and modification, and RNA localization. S/U or letter grading.

250. Seminar: Microbial Metabolism. (2) Seminar, two hours. Discussion and student presentations of recent work in areas of genetic regulation and physiology of bacterial metabolism. S/U or letter grading.

251. Seminar: Regulation and Differentiation. (2) Seminar, one hour. S/U grading.

254. Pre-mRNA Processing and Cellular Metabolism and Differentiation. (2) Seminar, three hours. Designed for graduate students. Reading and discussion of papers dealing with mRNA metabolism and posttranscriptional control of gene expression. From detailed RNA chemistry and autocatalytic reactions for more recently described and less understood systems, topics include RNA catalysis, general splicing and spliceosome assembly, splicing regulation, polyadenylation, transcript degradation, nuclear transport, RNA stability, mRNA transport, RNA editing and modification, and RNA localization. S/U or letter grading.

CM256. Human Genetics. (4) (Same as Human Genetics CM156, and Molecular, Cell, and Developmental Biology CM256.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Strongly recommended: Molecular, Cell, and Developmental Biology 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the 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.


M261. Molecular and Cellular Immunology. (6) (Same as Molecular, Cell, and Developmental Biology CM261.) Lecture, four and one-half hours; discussion, 90 minutes. Requisite: Biological Chemistry CM253. Comprehensive course for graduate students and selected undergraduates covering fundamentals and recent advances in molecular and cellular immunology. Lectures supplemented with discussion sections focusing on reading and analysis of primary research articles. Oral presentation required. S/U or letter grading.

262A. Seminar: Current Topics in Immunobiology of Cancer. (2) (Formerly numbered M262A.) Seminar, two hours. Review of recent literature in immunology, biology, and biochemistry of cancer, with emphasis on fundamental studies involving cell-mediated immunity, humoral immunity, tumor specific antigens, and new techniques. Discussion of reports on scientific meetings. May be repeated for credit. S/U or letter grading.

262D. Selected Topics in Immunology. (2) (Formerly numbered M262D.) Seminar, two hours. Student participation in discussions related to various topics in immunology. May be repeated for credit. S/U or letter grading.

266. Genetic Mechanisms Seminar. (2) Seminar, three hours. Designed for students in Predoctoral Training Program in Genetic Mechanisms. Current research topics in genetics. May be repeated for credit. S/U grading.

C268. Molecular Parasitology. (4) (Formerly numbered CM268.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4. Survey of parasite genomics not only as parasites which interact with a host, but also as model systems for analysis of basic biological phenomena such as gene regulation, molecular development, cell-cell interaction, molecular evolution, and novel biochemical pathways. Concurrently scheduled with course C168. Letter grading.

270. Seminar: Molecular Virology. (2) Seminar, two hours. Designed for graduate students. Discussion and student presentations of recent work in molecular virology, including viral gene expression and function. S/U grading.

C274. Advanced Topics in Molecular Parasitology. (2) (Formerly numbered C222.) Lecture, two hours. Examination of emerging model of biology of parasites and host/parasite relationship. Specific topics include parasite development, antigenic variation in trypanosomes, RNA editing, prospects for parasite vaccines. Concurrently scheduled with course C174. Letter grading.

CM276. Advanced Topics in Animal Virus/Host Interaction. (4) (Formerly numbered CM258.) (Same as Molecular, Cell, and Developmental Biology CM258 and Pharmacology M276.) Lecture, four hours; discussion, one hour. Recommended requisite: course 102 or Chemistry 153B or Molecular, Cell, and Developmental Biology 144. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular and cellular approaches to understand host/virus interaction at level of entry, replication, assembly, and release, as well as host defense and viral pathogenesis. Concurrently scheduled with course CM176. S/U or letter grading.

C285. Intermediate Immunology. (4) (Formerly numbered CM285.) Lecture, three hours; discussion, one hour. Requisite: course 185A or Molecular, Cell, and Developmental Biology C180. Recommended corequisite: Chemistry 153B. In-depth exploration of topics introduced in course 185A. Concurrently scheduled with course C185. Letter grading.


296A-296Z. Seminars: Research Topics in Microbiology, Immunology, and Molecular Genetics. (1 to 4 each) Seminar, three hours. Advanced study and analysis of current topics in microbiology, immunology, and molecular genetics. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296A. Eukaryotic Transcription Control.

296B. Regulation of Pre-mRNA Splicing.

296D. E. coli Physiological Research.

296E. Archaeabacterial Research.

296F. Molecular Biology of Microbial Diversity.

296G. Structure and Function of Membrane Transport Proteins.

296H. Genetics of Common Diseases.

296J. Microbial Pathogenesis.

296K. Advanced Topics in Immunology.

296L. Molecular Biology of Bacterial Growth.

296M. Immune Regulation and Autoimmune Disease.

296N. RNA and Protein Structure and Function.

296O. Cell Growth and Signal Transduction.

296P. Bacterial Toxins and Human Cytokines.

296Q. Mechanisms of Hematopoietic Development.
MIDDLE EASTERN AND NORTH AFRICAN STUDIES

Interdepartmental Program
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Claudia Rapp, D.Phil., Chair

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Ismail K. Poonawala, Ph.D. (Near Eastern Languages and Cultures)
A. Jihad Racy, Ph.D. (Ethnomusicology)
Yona Sabar, Ph.D. (Near Eastern Languages and Cultures)
Hossein Ziai, Ph.D. (Near Eastern Languages and Cultures)

Professors Emeriti
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Irene A. Bierman, Ph.D. (Art History)
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James L. Gelvin, Ph.D. (History)
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Gabriel Pietberg, D. Phil. (History)
Claudia Rapp, D.Phil. (History)
William M. Schneidewind, Ph.D. (Near Eastern Languages and Cultures)

Assistant Professors
Aziza Khazzoom, Ph.D. (Sociology)
Ghislaine E. Lydon, Ph.D., in Residence (History)
Willemina Z. Wendrich, Ph.D. (Near Eastern Languages and Cultures)

Scope and Objectives

The undergraduate major is designed primarily for (1) students seeking a general education and desiring a special emphasis in this geographic area from the medieval to the modern period, (2) those who plan to live and work in the Middle East and North Africa whose careers can be aided by a knowledge of the peoples, languages, history, and institutions of the region, (3) those who seek background knowledge because they intend to work with people of Middle Eastern and North African heritage in the U.S., and (4) students preparing for academic study at the graduate level in the various disciplines pertaining to the Middle East and North Africa.

The Middle Eastern and North African Studies (MENAS) Program focuses on the history and culture of the region from circa 300 C.E. to the present day. It includes the study of the peoples with cultural and personal roots in the region, especially those who immigrated to the U.S. The program offers a B.A. degree and a minor in Middle Eastern and North African Studies and is by its nature defined as an area studies program with a regional focus.

The graduate major in this discipline is called Islamic Studies. For details, see the program by that name earlier in this section.

Undergraduate Study

Middle Eastern and North African Studies B.A.

Preparation for the Major

Required: The first-year course in Arabic, Armenian, Hebrew, Persian, or Turkish, or the equivalent level of proficiency as determined by admission into a second-year language course (other languages may be substituted by petition); History 9D; and three lower division courses (at least 12 units) with Middle Eastern or North African content selected from Anthropology 6, 9, Comparative Literature 1A, 1B, 1C, 1D, Economics 1, 2, Ethnomusicology 20B, 91L, 91N, Geography 3, History 20, 21, 22, Near Eastern Languages 50A, 50B, 50C, Political Science 20, 50, Sociology 1. Other courses may be substituted by petition, but only with advance approval.

To enter the major, students must be in good academic standing (minimum overall 2.0 grade-point average), have completed 45 units and the requirements for the Preparation for the Major, and attend a mandatory counseling session and file a petition with the student affairs officer, 10375 Bunche Hall, (310) 206-2806.

Transfer Students

To be admitted as Middle Eastern and North African Studies majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one course in Middle Eastern and North African history and three additional courses with relevant content (eligibility of courses to be determined at the introductory counseling meeting).

The Major

Required: At least 11 upper division courses as follows: (1) three courses at the intermediate or advanced level or the equivalent in the Middle Eastern language taken in lower division, or the equivalent level of proficiency as determined by a departmentally administered examination, (2) History 106A, 106B, 106C, and (3) five elective courses, including courses in three different departments and two courses in a single department, to be selected from Anthropology 176, Art History 104A, 104B, C104C, 105E, Economics 110, 111, 112, 190, Ethnomusicology 191L, 191N, French 121A, 160, Geography 135, 187, History 109, 123A, 123B, 175B, 175C, 177, any upper division Near Eastern Languages and Cultures nonlanguage course, Political Science 132A, 132B, 157, 165, Sociology 187.

Students may petition for the following preapproved courses to fulfill upper division elective requirements for the major: (1) any one special topics course with substantial Middle Eastern or North African content and focus on the period after 300 C.E. and (2) one relevant methodology course such as Political Science 102, Psychology 142H, or Sociology C112. Other courses may be substituted by petition, but only with advance approval.

No more than 32 of the 44 units required for the major may be in one department, and at least 22 upper division units must be in departments that offer a major in the College of Letters and Science. No more than 20 units applied toward this major may fulfill the requirements for a major or minor in another department or program. All courses must be completed with grades of C (2.0) or better.

Students are encouraged to gain overseas experience by study abroad through the Education Abroad Program in Egypt, Israel, or Turkey. For further information, contact the student affairs officer at (310) 206-2806.
### Middle Eastern and North African Studies Minor

The Middle Eastern and North African Studies minor allows students to select from a broad range of courses in various departments to develop professional and methodological skills with area expertise. The minor enables students with an interest in the region to add dimension to their programs.

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 and seek counseling with the student affairs officer, 10375 Bunche Hall, (310) 206-2806.

<table>
<thead>
<tr>
<th>Required Lower Division Courses (8 units):</th>
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<tr>
<td>History 9D and one course selected from Anthropology 8, 9, Comparative Literature 1A, 1B, 1C, 1D, Economics 1, 2, Ethnomusicology 20B, 91L, 91N, Geography 3, History 20, 21, 22, Near Eastern Languages 50A, 50B, 50C, Political Science 20, 50, Sociology 1.</td>
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<tr>
<th>Required Upper Division Courses (20 units):</th>
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<tr>
<td>Three social sciences or humanities courses (one course from History 106A, 106B, 106C, 109, 123A, 123B, 175B, 175C, or 177 must be included) and two courses with specific Middle Eastern or North African content. Courses must be selected from Anthropology 176, Art History 104A, 104B, C104C, 105E, Economics 110, 111, 112, 190, Ethnomusicology 191L, 191N, French 121A, 160, Geography 135, 187, History, 109, 123A, 123B, 175B, 175C, 177, any upper division Near Eastern Languages and Cultures nonlanguage course, Political Science 132A, 132B, 157, 165, Sociology 187. Other courses may be substituted by petition, but only with advance approval.</td>
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</table>

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

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

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### Scope and Objectives

The Department of Molecular and Medical Pharmacology has basic and clinical components in which students have opportunities to develop intellectually and experimentally in basic biological sciences placed in the context of human disease. The department conducts integrative teaching and research programs that begin with molecular interactions and extend to studies of diseases and their treatment in humans. Departmental investigators study the biochemistry and pharmacology of drugs, gene expression and its regulation, signal transduction processes, cell-to-cell communication, viral replication and pathogenesis, autoimmune disease, neuronal development and plasticity, and integrated organ functions using techniques of chemistry and structural biology, DNA microarrays, molecular and cell biology, transgenic and chimeric mice, and cellular and organ imaging. Organic synthesis, genetic engineering, and imaging techniques such as confocal fluorescent and cryoelectron microscopy, autoradiography, and positron emission tomography (PET) are extensively employed.

The imaging techniques are available in the Crump Institute for Molecular Imaging, Ahman- son Biological Imaging Clinic, and UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, which are affiliated with the department. The goal of the education program is to provide faculty members and students the opportunity to examine the molecular and clinical basis of disease and the mechanisms of drugs in their treatment, as well as to visualize the changes in the disease state with procedures that monitor the molecular basis of cellular and organ function.

The graduate program seeks to prepare students for these interdisciplinary activities with a basic foundation in genetics, molecular and cellular biology, and pharmacology during their first year in residence. The second year is spent in the laboratory and in elective courses selected to reflect each student's interest, background, and requirements for the research undertaken. Numerous opportunities for interaction with other departments, institutes, and programs are provided through interdisciplinary coursework and many collaborative research activities.

Although the department offers only graduate degrees, upper division undergraduate courses are offered with enrollment restrictions as indicated in the course descriptions.

### Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D) degrees in Molecular and Medical Pharmacology. The department also offers two M.D./Ph.D programs concurrently with the School of Medicine. One is the Medical Scientist Training Program (MSTP) in which candidates are medical students that have been accepted into MSTP.

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### MOLECULAR AND MEDICAL PHARMACOLOGY

David Geffen School of Medicine

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Samson A. Chow, Ph.D., Vice Chair

Johannes Czernin, M.D., Vice Chair
Harvey R. Herschman, Ph.D., Vice Chair

Professors

Jorge R. Barrio, Ph.D.
Don H. Catlin, M.D.
Gautam Chaudhuri, M.D., Ph.D.
Simon R. Cherry, Ph.D.
Magnus Dahlbom, Ph.D.
Jon M. Fukuto, Ph.D.
Bernard K-K. Fung, Ph.D.
Sanjay Gambhir, M.D., Ph.D.
Cameron B. Gunnansen, Ph.D.
James R. Heath, Ph.D.
Harvey R. Hershman, Ph.D. (Crump Professor of Medical Engineering)
Edward J. Hoffman, Ph.D.
David A. Hovda, Ph.D.
Sung-Cheng (Henry) Huang, D.Sc.
Louis J. Ignarro, Ph.D. (Jerome J. Belzer Professor of Medical Research)
Barbara A. Levey, M.D.
Eydette D. London, Ph.D.
Jamshid Maximov, Ph.D.
John C. Mazziootta, M.D., Ph.D. (Frances Stark Professor of Neurology)
Richard W. Olsen, Ph.D.
Michael E. Phelps, Ph.D. (Norton Simon Professor of Biophysics)
Osman Ratib, M.D.
Nagachietti Satyamurthy, Ph.D.
Charles L. Sawyer, M.D. (Bing Professor of Urologic Research)
Heinrich R. Schelbert, M.D., Ph.D.
Ligia Toro, Ph.D.
Peter Valk, M.D.
Owen N. Witte, M.D.

Professors Emeriti

Arthur K. Cho, Ph.D.
Donald J. Jenden, M.D., Ph.D.

Associate Professors

Samson A. Chow, Ph.D.
Johannes Czernin, M.D.
Sherei G. Howard, Ph.D.
Daniel L. Kaufman, Ph.D.
Harley I. Kornblum, M.D., Ph.D.
Paul A. Kro gestad, M.D.
William P. Melega, Ph.D.
Christiania Schippers, M.D., Ph.D.
Phoebe L. Stewart, Ph.D.
Joy A. Umbach, Ph.D.
Anna Wu, Ph.D.

Assistant Professors

David B. Agus, M.D.
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Han Htu, Ph.D.
Jing Huang, Ph.D.
Xin Liu, M.D., Ph.D.
Derek Maclean, M.D.
Jianghong Rao, Ph.D.
Srini vasra Reddy, Ph.D.
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Yi Sun, Ph.D.
Jide Tian, M.D.
Tatsushi Toyokuni, Ph.D.
Hong Wu, M.D., Ph.D.

Johannes Czernin, M.D., Ph.D.
Michael E. Phelps, Ph.D.
Richard W. Olsen, Ph.D.
James R. Heath, Ph.D.
Edward J. Hoffman, Ph.D.
Johannes Czernin, M.D., (Jerome J. Belzer Professor of Medical Research)
Molecular and Medical Pharmacology

Upper Division Courses

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Formerly numbered 110A.) (Same as Molecular Toxicology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Course M110A is requisite to 110B. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

110B. Drugs: Mechanisms, Uses, and Misuse. (4) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: course M110A, Life Sciences 2. Introduction to pharmacology for undergraduate students, emphasizing principles under-lying mechanism of action of drugs, their development, control, rational use, and misuse. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Special studies in pharmacology, including either reading assignments or laboratory work or both, designed for proper training of students. P/NP or letter grading.

Graduate Courses

200. Introduction to Laboratory Research. (4 to 6) Laboratory, eight to 16 or 20 hours. Individual projects in laboratory research for beginning graduate students. At end of term students submit to their supervisor a report covering research performed. Pharmacology graduate students must take this course three times during their first two years in residence. S/U or 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.

211A-211B. Principles of Pharmacology. (4-2) Lecture, three to eight hours; discussion, zero to nine hours. Preparation: mammalian physiology, biochemistry. Systematic consideration of principles governing interaction between drugs and biological systems and of principal groups of drugs used in therapeutics. Particular attention on modes of action, pharmacokinetics, and disposition to provide a scientific basis for their rational use in medicine. S/U or letter grading.


M234C. Laboratory in Toxicological Methods. (2) (Same as Environmental Health Sciences M245 and Molecular Toxicology M245.) Lecture, one hour; laboratory, four to five hours. Survey of experimental techniques used in study of toxic substances. Experiments conducted within known toxic to demonstrate its effects at molecular, cellular, and tissue levels. Letter grading.

237. Research Frontiers in Cellular and Molecular Pharmacology. (8) (Formerly numbered 237A-237B-237C.) Lecture, 10 hours; laboratory, 30 hours total. Detailed examination of principles of pharmacology and mechanisms of drug action at organismal, tissue, cellular, and molecular levels, with emphasis on receptors, receptor-effector coupling, neurotransmitters, cardiovascular pharmacology, autonomic and central nervous system pharmacology. S/U or letter grading.

M241. Introduction to Chemical Pharmacology and Toxicology. (4) (Formerly numbered 241.) (Same as Molecular Toxicology M241.) Lecture, six hours. Preparation: organic and biological chemistry. Designed for molecular and medical pharmacology students, introduction to general principles of pharmacology. Role of chemical properties of drugs in their distribution, metabolism, excretion, and modes of action. S/U or letter grading.

M248. Introduction to Experimental Imaging. (4) (Same as Biomedical Engineering M248 and Biomedical Physics 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 a range of modalities. Practical experience provided through a series of imaging laboratories. Letter grading.

251. Seminar: Pharmacology. (2) Seminar presented by students, faculty, and guest lecturers on a variety of topics. S/U grading.

M255. Biological Catalysis. (4) (Same as Biological Chemistry M255, Chemistry CM255, and Molecular, Cell, and Developmental Biology CM255.) Requisites: Chemistry 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereochemistry, chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level. Letter grading.

M257. Introduction to Toxicology. (4) (Same as Pathology M257.) Requisite: course M241. Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems. S/U or letter grading.

M258. Pathologic Changes in Toxicology. (4) (Same as Pathology M258.) Designed to give students experience in learning normal histology of tissues which are major targets of toxin and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system). S/U or letter grading.

M276. Advanced Topics in Animal Virus/Host Interaction. (4) (Same as Microbiology CM276 and Molecular, Cell, and Developmental Biology CM256.) Lecture, four hours; discussion, one hour. Recommended requisite: Chemistry 153B or Microbiology 102 or Molecular, Cell, and Developmental Biology 144. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular and cellular approaches to understand host/virus interaction at level of entry, replication, assembly, and morphogenesis, as well as host defense and viral pathogenesis. S/U or letter grading.

286. 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. (2 to 4) Examination in depth of topics of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced Ph.D. candidates and faculty. S/U or letter grading.

293. Nitric Oxide Chemistry, Biochemistry, and Physiology. (2 or 4) Lecture, two or four hours. Basic chemistry and 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 in organisms. Letter grading.

298. Seminar: Current Topics in Molecular and Medical Pharmacology. (2) Limited to pharmacology, ACCESS program, and interdepartmental Molecular Biology Ph.D. 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 a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.


Molecular Biology

Interdepartmental Program

College of Letters and Science

UCLA

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Los Angeles, CA 90095-1570

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fax: (310) 206-7286

http://www.mbi.ucla.edu

Steven G. Clarke, Ph.D., Director

Faculty Advisory Committee

Douglas L. Black, Ph.D.

Guillaume F. Charneau, Ph.D.

Jau-Nian Chen, Ph.D.

Peter A. Edwards, Ph.D.

Sabeeka Merchant, Ph.D., Chair

Charles L. Sawyer, M.D.

Peter Tontonoz, M.D., Ph.D.

Geraldine A. Weinmaster, Ph.D.

Affiliated Faculty

Professors

Utpal Banerjee, Ph.D. (Biological Chemistry, Human Genetics, Molecular, Cell, and Developmental Biology)

Linda G. Baum, M.D., Ph.D. (Pathology and Laboratory Medicine)

Arnold J. Berk, M.D. (Microbiology, Immunology, and Molecular Genetics)

Judith A. Berliner, Ph.D. (Pathology and Laboratory Medicine)

Douglas L. Black, Ph.D. (Microbiology, Immunology, and Molecular Genetics)

Jonathan Braun, M.D., Ph.D. (Pathology and Laboratory Medicine)

Clifford F. Brunk, Ph.D. (Organismic Biology, Ecology, and Evolution)

David A. Campbell, Ph.D. (Microbiology, Immunology, and Molecular Genetics)

Michael F. Carey, Ph.D. (Biological Chemistry)

Irvin S.Y. Chen, Ph.D. (Medicine, Microbiology, Immunology, and Molecular Genetics)
Related Courses

The following courses offered by the departments listed are particularly appropriate to the research areas mentioned above. With the approval of the guidance committee or research supervisor, other related courses may be included in the program.

Biological Chemistry
M234. Genetic Control of Development
CM248. Molecular Genetics

251A. Seminar: Transcriptional Regulation
CM253. Macromolecular Structure
M263. Metabolism and Its Regulation
M266A-M266B-M266C. Seminars: Molecular Embryology
CM267. Cell Structure, Signaling, and Development

Chemistry and Biochemistry
M230B. Structural Molecular Biology
M230D. Structural Molecular Biology Laboratory
CM253. Macromolecular Structure
256A-256V. Seminars: Research in Biochemistry
CM260. Bioinformatics and Genomics
M263. Metabolism and its Regulation
M267. Cell Structure, Signaling, and Development

Microbiology, Immunology, and Molecular Genetics
M229. Cellular Biology of Host/Pathogen Interactions
242. Seminar: Microbial Molecular Genetics
CM248. Molecular Genetics

250. Seminar: Microbial Metabolism
251. Seminar: Regulation and Differentiation
CM256. Human Genetics
M261. Molecular and Cellular Immunology
290. Seminar: Molecular Genetics

Molecular, Cell, and Developmental Biology
CM223. Cell Structure, Signaling, and Development
M229. Cellular Biology of Host/Pathogen Interactions
M230B. Structural Molecular Biology
M230D. Structural Molecular Biology Laboratory
CM234. Genetic Control of Development
CM248. Molecular Genetics
CM256. Human Genetics
CM261. Molecular and Cellular Immunology
M266A-M266B-M266C. Seminars: Molecular Embryology

Scope and Objectives

The revolution in modern biology that began with the elucidation of the structure of DNA by Watson and Crick in the 1950s has had a profound effect not only on biological research, but on the way biology is taught as a subject. The field of biology spawned by this discovery, generally called molecular biology, has provided an entirely new framework within which to approach questions in cell and developmental biology. The specializations, both technical and conceptual, demanded by this field have led to the growth of molecular biology and its related disciplines into an essentially separate branch of scientific inquiry.

Students who complete the requirements for the Bachelor of Science degree in Molecular, Cell, and Developmental Biology are exceptionally well prepared to pursue careers in cellular and subcellular biological research, biomedical research, or medicine or allied health fields. The degree combines essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as in-depth exposure to key topics in molecular, cell, and developmental biology. The Plant Technology B.S. degree is designed to prepare students for careers in biotechnology; students are trained in plant biology as well as in concepts and techniques in molecular biology. The M.A. and Ph.D. degrees provide opportunities for advanced concentrated study and require independent and innovative research that ultimately results in publishable thesis and dissertation materials.

Undergraduate Study

Molecular, Cell, and Developmental Biology B.S.

The Bachelor of Science degree in Molecular, Cell, and Developmental Biology (MCDB) is designed especially for students who intend to go on to postgraduate work in biology or medicine and for students aiming for entry-level positions in biotechnology-related fields. Students are exposed to basic biological and molecular concepts underlying recent technical advances in molecular, cell, and developmental biology of animals and plants. Areas of emphasis include cell biology, immunology, molecular biology, plant biology, developmental biology, and neurobiology, among others.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

All core curriculum courses must be passed with a grade of C- or better and 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

To be admitted as Molecular, Cell, and Developmental Biology majors, transfer students 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, 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.

The Major

Required Courses: Chemistry and Biochemistry 153A, 153L, Molecular, Cell, and Developmental Biology 100 or C139 or M140 or 165, 104, 138 or C141, 144.

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 193A, 193B, or 199, is acceptable. The following courses outside the department may be taken to satisfy a
maximum of 10 units in this category: Biological Chemistry CM153G, Biomathematics 160 or Statistics 100A, Chemistry and Biochemistry 153C, 156, CM159A, CM159B, C160, Life Sciences 100HA or 100HB or 100HC, Microbiology, Immunology, and Molecular Genetics 101, 102, C106, C159, C168, C174, 185A, Organismic Biology, Ecology, and Evolution 110, 121, 146, 157, 162, M166, Physiological Science 126. 

Laboratory: At least 4 units of upper division laboratory experience selected from Chemistry and Biochemistry 154, Life Sciences 100HA or 100HB or 100HC, Microbiology, Immunology, and Molecular Genetics 101 and 101L (both courses must be taken), 102 and 102L (both courses must be taken), Molecular, Cell, and Developmental Biology 120, 155, 190A through 190D, 190HA through 190HD, 199, Organismic Biology, Ecology, and Evolution M158, 162, M166.

A maximum of 12 units of Molecular, Cell, and Developmental Biology 190 and no more than one course from 190C, 190HC, or 199 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).

Courses 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.

Plant Biotechnology B.S.
The Plant Biotechnology major is designed to prepare students for careers in biotechnology or for entrance into graduate school. Industries, particularly those that have traditionally dealt with agricultural products, are increasingly turning to biotechnology to improve the production as well as the nutritional value of food. These emerging industries are also developing products to lessen the dependence on nonrenewable resources and to restore soil and water quality. Students are trained in plant biology as well as in concepts and techniques in molecular biological science. These skills should enable students who successfully complete the curriculum to find challenging careers in the diverse biotechnology arena, academics, industry, or government.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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

To be admitted as Plant Biotechnology majors, transfer students 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, 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.

The Major

Required: A minimum of 10 courses as follows:

Group 1: Chemistry and Biochemistry C160, Molecular, Cell, and Developmental Biology 104, 120, C141 or C150, Organismic Biology, Ecology, and Evolution 162, and 4 units of plant biology laboratory internship (Molecular, Cell, and Developmental Biology 190A and 190B, or 190HA and 190HB, or 199).

Group 2: Four additional courses selected from Chemical Engineering C115, C125, Chemistry and Biochemistry 110A, 156, Microbiology, Immunology, and Molecular Genetics 101 and 101L (counts as one course), 102 and 102L (counts as one course), C120, C133 (counts as a half course), Molecular, Cell, and Developmental Biology 144 or Organismic Biology, Ecology, and Evolution 121, and any courses in Group 1 not applied toward Group 1.

Courses 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 and Plant Biotechnology 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; those intending to pursue highest honors must have faculty sponsorship from within the department.

For further information and application forms, students should consult the Student Affairs Office, 2124 Life Sciences, early in their educational planning. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

The core of the program consists of at least one undergraduate seminar selected from Molecular, Cell, and Developmental Biology C174A through C174D and three research courses (12 units minimum) from 190HA, 190HB, and 190HC, culminating in a thesis.

To qualify for graduation with honors, students must satisfactorily complete all requirements for the honors program and the major and obtain at least an overall 3.0 grade-point average and a 3.5 GPA or better in coursework required for the major. On recommendation by the faculty sponsor and with approval of the thesis by the departmental honors committee, students are awarded no honors, departmental honors, or highest departmental honors.

At the discretion of the departmental honors committee, students who have (1) a GPA of 3.6 or better, both overall and in the major, (2) research sponsorship from a faculty adviser within the department, and (3) demonstrated exceptional accomplishment on the research thesis are awarded highest departmental honors.

Computing Specialization

Majors in Molecular, Cell, and Developmental Biology and Plant Biotechnology 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, 30, and 60, and (3) completing one course from Computer Science M196B or Organismic Biology, Ecology, and Evolution C159. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Student Affairs Office). Students graduate with a bachelor's degree in their major and a specialization in Computing.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Molecular, Cell, and Developmental Biology offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Molecular, Cell, and Developmental Biology.
Molecular, Cell, and Developmental Biology

Lower Division Courses

30. Biology of Cancer. (5) Lecture, five and one-half hours; experimental service learning, 30 minutes. Introduction to molecular, cellular, and clinical aspects of cancer and consideration of sociological and psychological impacts of cancer on the individual and society. P/NP or letter grading.

40. AIDS and Other Sexually Transmitted Diseases. (5) Lecture, five and one-half hours; experimental service learning, 30 minutes. Introduction to interdisciplinary debate surrounding the personal and societal response to AIDS and other sexually transmitted diseases. P/NP or letter grading.

70. Genetic Engineering and Society. (4) Lecture, three hours; discussion, two hours. Designed for nonmajors. Not open to students with credit for Life Sciences 3 or 4. Basic principles of genetic engineering. Overview of genetic engineering techniques and relationship of genetic manipulation, agriculture, and society. Emphasis on specific genetic engineering applications to generate discussion on its use in society.

80. The Green World: Plant Biology for Now and the Future. (5) Lecture, two and one-half hours; laboratory, two hours. Designed for nonmajors. Basic principles of plant biology and introduction to techniques for manipulating plants for improved agriculture, sources of renewable "clean" energy, reclamation of restored and nutritionally depleted soils, and "biological factories" to produce biodegradable plastics, antibodies, and other commodities. Underexplored plant crops also featured. P/NP or letter grading.

88C. Lower Division Seminar: Frontiers of Molecular Biology — Historical Perspective. (4) Seminar, three hours. Limited to freshmen who have not completed Life Sciences 3. Designed for nonmajors. Study of biology at molecular level has unlocked secrets of the gene, started the biotechnology revolution, and promises a new scientific age that uses gene therapy to cure human disease, produce superplants that grow in the desert, and uncover the mysteries of the mind. Exploration of origins and history of molecular biology by reading early papers by Mendel, Watson, Crick, and others who played a major role in changing society with their discoveries of new biological principles. P/NP or letter grading.

88D. Lower Division Seminar: Genetics and Society. (4) Discussion, three hours. Some ways genetics affects us now and what changes are possible for our children. Examination of biological basis of inheritance in order to understand scientific methods and science teaching.

88E. Lower Division Seminar: Genetics and Society — Current Status and Future Applications. (4) Seminar, three hours. Recent advances in genetics have opened up new possibilities in fields of forensics, medicine, agriculture, and industry, with corresponding legal, social, and economic ramifications. Examination of scientific/genetic basis underlying genetic engineering, genetic screening, genetic therapy, eugenics, DNA fingerprinting, cloning, etc., and discussion of current and future applications. P/NP or letter grading.

88F. Lower Division Seminar: Science and Scientists — Expectations and Realities. (2) Examination of change from when science was done by individuals as an avocation without societal goals to contemporary science which is done by professionals and is driven by societal needs and pressures. P/NP or letter grading.

M89H. Lower Division Seminar: Limits of Biological Design through Physical Principles. (4) (Same as Physics M88H.) Seminar, three hours. Enforced requisites: Chemistry 20A, 20B, Life Sciences 13, Mathematics 3A, 3B, and 3C; 31A, 31B, and 32A. Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 6A, 6B, and 6C. Speculative view of diverse biological design such as scaling of metabolism, activity, bone and muscle mass, cell size, cell membranes and pumps, heart and blood circulation, blood vessels, insect vision, magnetic biology, etc., studied quantitatively using elementary mathematics and physical principles. P/NP or letter grading.

Upper Division Courses

100. Introduction to Cell Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L. Life Sciences 3, 4. Not open to students with credit for course C139 or M140. Analysis of cell organization, structure, and function at molecular level. Cell membrane and organelles, membrane transport, cellular signaling, cell cycle, mitosis and meiosis, intracellular trafficking, cell energetics. Letter grading.

104. Cell and Molecular Biology Laboratory. (6) Lecture, 90 minutes; discussion, one hour; laboratory, eight hours. Requisites: Life Sciences 3, 4. Introduction to methods and topics. Topics include purification, manipulation and analysis of DNA, RNA, and protein. Emphasis on computer sequence analysis and use of current literature. May not be repeated for credit. Letter grading.

120. Introduction to Plant Biology. (6) Lecture, 90 minutes; discussion, one hour; laboratory, eight hours. Requisites: Life Sciences 3, 4. Introduction to plant biology, as well as to concepts and techniques in molecular biology and genetics. Students gain hands-on experience in laboratory section in doing experiments and hone their powers of observation. May not be repeated for credit. Letter grading.


C139. Molecular, Cellular, and Developmental Neurobiology. (6) Lecture, two hours; discussion, two hours; laboratory, two hours. Fundamental topics concerning molecular, cellular, and developmental neurobiology, including intracellular signaling, cell-cell communication, development, synaptic formation and elimination, programmed neuronal death, and neurotrophic factors. Concurrently scheduled with course CM220. Letter grading.

M140. Cell Biology: Cell Cycle. (5) (Same as Biological Chemistry M140.) Lecture, four hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L. Life Sciences 3, 4. Not open to credit to students with credit for course 100 or C139. Schedules 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.

CM155. Human Genetics. (4) (Same as Human Genetics CM156 and Microbiology CM156.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Strongly recommended: course 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on genetic and chemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and on methodologies appropriate to answer such questions. Concurrently scheduled with course CM252. Letter grading.


CM156. Biological Catalysis. (4) (Same as Chemistry CM155.) Requisites: courses 100 or C139 or M140, Chemistry 110A, 153A, 153B, Life Sciences 3. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereochemistry, chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level. Concurrently scheduled with course CM252. Letter grading.


CM169. Cell Structure, Signaling, and Development. (6) (Same as Biological Chemistry CM169 and Human Genetics CM169.) Lecture, five hours. Requisites: Chemistry 135A, 135B, 135C. Recommended: Chemistry CM153G. Cell cycle regulation; chromosomes and DNA repair; protein trafficking and endocytosis; extracellular matrix, cell to cell communication and signal transduction; cell transformation and apoptosis; molecular aspects of development, differentiation, and cancer. Concurrently scheduled with course CM223. Letter grading.

171. Principles of Neurobiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, Chemistry M186. Strongly recommended: course 100 or C139 or M140. Introduction to basic principles of neurobiology, including description of structure of neurons and nervous systems; ionic mechanisms responsible for generating membrane potentials, action potentials, and synaptic potentials; properties of synaptic transmission, information transmission, and coding in sensory pathways, and neural control of movement; development of and trophic interactions between cells of nervous system.

C174A-C174D. Advanced Topics in Cell and Molecular Biology. (2 each) ( Formerly numbered C174A-C174G.) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144, Life Sciences 4. Recent developments in fields of molecular, cell, and developmental biology. Concurrently scheduled with courses C222A-C222D. Letter grading.

C174A. Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144, Life Sciences 4. Current developments in the field of molecular evolution. Constructing evolutionary trees at molecular level; formal testing of evolutionary hypotheses using sequence data. Letter grading.


M175A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A or former course 30 (14C may be taken concurrently). Life Sciences 2, Physical Chemistry 1B or 6C. Not open for credit to students with credit for Physiological Science 111A. For Physiological Science majors only, a grade of C– or better is required to proceed to Physiological Science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission, Sensory systems and motor system; how assemblies of neurons process complex information and control behavior. P/NP or letter grading.

M175B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course M175A (or Neuroscience M101A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115, Life Sciences 3, 4. Molecular biology of neurons and receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in development. Biochemistry: gene regulation and protein function. P/NP or letter grading.

M175C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course M175A (or Neuroscience M101A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

176. Advanced Topics in Animal Virus/Host Interaction. (4) (Formerly numbered M176.) (Same as Microbiology CM176.) Lecture, four hours; discussion, one hour. Requisites: Life Sciences 3, Chemistry M153A, Microbiology 102. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular mechanisms involved in cell-to-cell and host/virus interaction at level of entry, replication, assembly, and morphogenesis, as well as host defense and viral pathogenesis. Concurrently scheduled with course CM258. P/NP or letter grading.


C178. Molecular and Cellular Immunology. (6) (Same as Biological Chemistry CM178, Human Genetics CM178, and Microbiology CM178.) Lecture, five hours. Requisites: courses 100 or C139 or M140, 153A, Life Sciences 3, 4. Basic concepts in modern genetics, with examples from both eukaryotic and prokaryotic systems. Emphasis on use of genetic techniques for addressing fundamental questions in cell and biochemistry. Topics include mutagenesis, repair, recombination, transposition, genetic regulation, developmental genetics, neurogenetics, and immunogenetics. Concurrently scheduled with course CM264. Letter grading.

C180. Molecular and Cellular Biology. (6) Lecture, four and one-half hours; discussion, 90 minutes. Requisites: courses 100 or C139 or M140, Chemistry 153A, Life Sciences 3. Not open for credit to students with credit for former course M185A. Comprehensive course for graduate students and selected undergraduates covering fundamentals and recent advances in molecular and cellular immunology. Lectures supplemented with discussion section focusing on reading and analysis of primary research articles. Concurrently scheduled with course CM261. Letter grading.

188. Research Topics in Molecular, Cell, and Developmental Biology. (1 Seminar) (Formerly numbered 190A-190D.) Lecture, three hours; discussion, two hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervised practicum for advanced undergraduates in teaching courses related to molecular, cell, and developmental biology. Students assist in preparation of materials and development of innovative programs under guidance of faculty and teaching assistants. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. P/NP or letter grading.

193A. Teaching Practicum in Molecular, Cell, and Developmental Biology. (1 Seminar) (Formerly numbered 193A-193D.) Lecture, three hours; discussion, two hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervised practicum for advanced undergraduates in teaching courses related to CityLab. Introduction to teaching ideology and practice, molecular genetics and DNA fingerprinting techniques, and laboratory teaching under guidance of department faculty members. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. P/NP or letter grading.

193B. Teaching Practicum: CityLab. (2) Lecture, two hours; laboratory, four hours. Limited to juniors/seniors in any life sciences major. Training and supervised practicum for advanced undergraduates in teaching courses related to CityLab. Introduction to teaching ideology and practice, molecular genetics and DNA fingerprinting techniques, and laboratory teaching under guidance of department faculty members. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. P/NP or letter grading.

M194. Undergraduate Seminar: Current Topics in Biomedical Sciences. (2) Lecture, one hour. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Weekly presentation and discussion of a paper selected from current literature. May be repeated for credit. P/NP or letter grading.

197. Undergraduate Seminar: Current Topics in Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Designed for juniors/seniors. Intended for students with strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of a paper selected from current literature. May be repeated for credit. P/NP or letter grading.

198. Seminar: Social Implications of Current Biological Research. (2) Seminar, two hours. Discussion about how current research in biology, particularly in areas of molecular, cell, and developmental biology, affects social issues and policy. May be repeated for credit. P/NP or letter grading.

199. Special Studies. (2 to 16) Preparation: submission of written proposal outlining the study or research to be undertaken. Studies to involve laboratory or library research. Courses in special studies in molecular, biochemical, physiological, or biomedical fields. Letter grading.

190A-190D. Research in Molecular, Cell, and Developmental Biology. (2 to 4 each) Seminar, to be arranged. Limited to seniors. Individual research designed to broaden and deepen students’ knowledge of select area of molecular, cell, and developmental biology. Must be taken with Molecular, Cell, and Developmental Biology Department faculty for at least two terms and for a total of at least 8 units. In Progress report and letter grading (only one count toward completion of course 190B). Students may elect to enroll in additional research through courses 190C-190D (letter grading). A report on progress must be presented to undergraduate adviser each term a 190 course is taken.
Graduate Courses


CM220. Cellular, Molecular, and Developmental Neurobiology. (6) (Same as Neurobiology M200B, Neuroscience M201, and Physiology M209A.) Lecture, two hours; discussion, two hours; laboratory, two hours. Fundamental aspects of the molecular, cellular, and developmental neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. Concurrently scheduled with course C139. Letter grading.

C222A-C222D. Advanced Topics in Cell and Molecular Biology. (2 each) (Formerly numbered C222A-C222D.) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144, Life Sciences 4. Recent developments in fields of molecular, cell, and developmental biology. Concurrently scheduled with courses C174A-C174D. Letter grading.

C222A. Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144, Life Sciences 4. Development of a variety of theoretical approaches in study of DNA replication, organization, transposition, genetic regulation, developmental phenomena. Concurrently scheduled with course C141. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading.


M229. Cellular Biology of Host/Pathogen Interactions. (6) (Same as Microbiology M229.) Lecture, four hours; discussion, one hour. Requisites: Microbiology CM253. Molecular and cellular biology of pathogens, eukaryotic host cells, and interaction between pathogens and hosts. Letter grading.

M230B. Structural Molecular Biology. (4) (Same as Chemistry CM230B.) Lecture, three-hour 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.

M230D. Structural Molecular Biology Laboratory. (2) (Same as Chemistry M230D.) Laboratory, 10 hours. Corequisite: course M230B. Methods in structural molecular biology, including experimenting with 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.

M234. Genetic Control of Development. (4) (Same as Biological Chemistry M234.) Topics at forefront of molecular developmental biology, presenting fundamental problems in development and early embryogenesis, pattern formation, axis determination, nervous system development, cell-cell and cell-matrix interactions, and gene families. Letter or S/U grading.

M237. Introduction to Cellular Physiology and Biophysics. (6) (Same as Physiological Science M212 and Physiology M212.) Lecture, five hours. Requisite: Physiological Science 111A or Physiology M212. Development of fundamental physiological and biophysical concepts associated with all membrane, membrane channels and transporters, membrane potential, membrane excitability, electrical signal transmission and transduction, and muscle contraction and their application to study of basic cellular processes. Emphasis in laboratory on development of skills using computer programming languages, spreadsheets, and graphics for modeling and analysis of cellular processes.

M239. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4. In-depth study of basic processes of growth, development, and plant mechanization underlying these processes. Discussion of a variety of molecular systems and developmental processes. Concurrently scheduled with course C141. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading.

M240. Cytokines and Reproductive Biology. (2) (Same as Microbiology M240.) Lecture, 90 minutes; discussion, one hour. Overview of current research in cytokines and other immune system molecules in reproductive biology. S/U or letter grading.

242. Topics in Neurobiology. (4) Lecture, three hours. Requisite: course 171. Selected current problems in neurobiology discussed in depth, with emphasis on analysis of original papers. May be repeated for credit.


C250. Plant and Animal Viruses. (4) (Same as Microbiology M266C.) Lecture, six hours; discussion, two hours. Topics vary from year to year, with focus on establishment of infection factors. S/U or letter grading.

CM252. Molecular Catalysis. (4) (Same as Biological Chemistry M255, Chemistry CM255, and Pharmacology M255.) Requisites: courses 100 or C139 or M140, Chemistry 110A, 135A, 135B, Life Sciences 3. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetic, isotopic labeling, stoichiometry of chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level. Concurrently scheduled with course CM160. Graduate students required to write research paper and present oral report on it. Letter grading.

254. Seminar in 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 apu B mRNA and plant mitochondria, C insertion editing in Physarum mitochondria, etc. Discussion of mechanism, function, and evolution of these phenomena.

CM256. Human Genetics. (4) (Same as Human Genetics CM256 and Microbiology CM256.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 100A, 100B, 100C. Strongly recommended: course 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the 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.

CM258. Advanced Topics in Animal Virus/Host Interaction. (4) (Same as Microbiology M276 and Pharmacology M276.) Lecture, four hours; discussion, two hours. Requisites: Life Sciences 100A, 100B, 100C. Strongly recommended: course 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on virus infections of animal systems. Concurrently scheduled with course CM178. Letter or S/U grading.

CM261. Molecular and Cellular Immunology. (6) (Same as Microbiology M261.) Lecture, four and one-half hours; discussion, nine hours. Requisites: Biological Chemistry CM255, Comprehensive course for graduate students and selected undergraduates covering fundamentals and recent advances in cellular and molecular immunology. Lectures supplemented with discussion section focusing on reading and analysis of primary research papers. Concurrently scheduled with course CM178. Oral presentation required of graduate students. S/U or letter grading.

CM266A-M266B-M266C. Seminars in Molecular Embryology. (2-2-2) (Same as Biological Chemistry M266A-M266B-M266C.) Advanced course in developmental genetics and biochemistry, with emphasis on early development. Intended mostly for students actively working or highly interested in embryology. S/U grading.

276. Seminar in Molecular Genetics. (2) Topics vary each term.

277. Seminar in Genetics. (2) Seminar, two hours. S/U or letter grading.

278. Seminar in Molecular Genetics of Development. (2) 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.
Molecular, Cellular, and Integrative Physiology

Interdepartmental Program
College of Letters and Science and David Geffen School of Medicine

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Diane M. Papazian, Ph.D.
James G. Tidball, Ph.D.
Nancy L. Wayne, Ph.D.

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R. James Barnard, Ph.D. (Physiological Science)
Judith A. Berliner, Ph.D. (Pathology and Laboratory Medicine)
Francisco J. Bezanilla, Ph.D. (Physiology)
Gregory Brent, Ph.D. (In Residence, Physiology)
Scott H. Chandler, Ph.D. (Physiological Science)
Linda L. Deemer, Ph.D. (Physiology)
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Julio L. Vergara, Ph.D. (Physiology)
James N. Weiss, M.D. (Physiology; Chizuko Kawata Professor of Cardiology)
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Riccardo Olcese, Ph.D., in Residence (Anesthesiology)
Melissa Spencer, Ph.D. (Pediatrics)
Stephanie A. White, Ph.D. (Physiological Science)
Hal F. Yee, M.D., Ph.D., in Residence (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 physicians who can intellectually and

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Molecular, Cellular, and Integrative Physiology

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (Ph.D.) degree in Molecular, Cellular, and Integrative Physiology.

Molecular, Cellular, and Integrative Physiology

Graduate Courses

296. Research Seminar. (2) Seminar, to be arranged. Review of literature, discussion of original research, and analysis of current topics in molecular, cellular, and integrative physiology. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 10) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 10) Tutorial, to be arranged. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U or letter grading.

599. Research for Ph.D. Dissertation. (2 to 10) Tutorial, to be arranged. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U grading.

Scope and Objectives

Faculty from a variety of departments and schools at UCLA, including Biological Chemistry, Chemistry and Biochemistry, Environmental Health Sciences, Epidemiology, Medicine, Molecular and Medical Pharmacology, and Pathology and Laboratory Medicine, have joined forces to create an interdisciplinary Ph.D. program in Molecular Toxicology, which is administered through the School of Public Health. Specialties within the program include, but are not limited to, neurotoxicology, immunotoxicology, reproductive and developmental toxicology, genetic toxicology, toxicokinetics and metabolism, genetics and molecular biology, carcinogenesis, and environmental toxicology. There is a particular emphasis on mechanisms of toxicity, since it is now widely accepted that understanding mechanisms will provide the means for accurately determining risk.

New chemicals have been the basis for most of the technological developments during the past century, and there is no question that society has reaped enormous benefits from the creation and growth of the chemical industry. However, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The discipline of toxicology, which seeks to characterize and elucidate the mechanisms of the problems related to exposure of chemical agents, has also developed from a purely descriptive to a mechanistic science whose objective is to understand the basis of toxic action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phenomena, and the growth of the sophistication of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (Ph.D.) degree in Molecular Toxicology.

Molecular Toxicology

Upper Division Courses

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Same as Pharmacology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Limited to seniors. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.
Graduate Courses

211A-211B-211C. Molecular Toxicology Seminars. (1-1-1) Seminar, one hour twice per month. Seminar series which alternately features outside speakers and members of UCLA molecular toxicology community (students, postdoctoral fellows, and faculty) and deals with topics relevant to molecular toxicology. In Progress and S/U grading.

M241. Introduction to Chemical Pharmacology and Toxicology. (6) (Same as Pharmacology M241.) Lecture, six hours. Preparation: organic and biological chemistry. Designed for molecular and medical pharmacology students. Introduction to general principles of pharmacology. Role of chemical properties of drugs in their distribution, metabolism, excretion, and modes of action. S/U or letter grading.

M242. Toxicodynamics. (4) (Same as Environmental Health Sciences M242.) Lecture, two hours; discussion, two hours. Requisite: Environmental Health Sciences 240. Examination of biochemical, cellular, and molecular mechanisms by which chemicals induce toxicity in wide spectrum of organ systems and in a number of pathological conditions. Letter grading.

M245. Laboratory in Toxicological Methods. (2) (Same as Environmental Health Sciences M245 and Pharmacology M234C.) Lecture, one hour; laboratory, four to five hours. Survey of experimental techniques used in study of toxic substances. Experiments conducted within known toxic to demonstrate its effects at molecular, cellular, and tissue levels. Presentation of principles of techniques and methods of data analysis at discussion session prior to laboratory. Letter 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. Letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. Letter grading.

599. Ph.D. Dissertation Research. (8 to 12) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

Affiliated Faculty

Professors
Christine L. Borgman, Ph.D. (Information Studies)
Nicholas K. Browne, Ed.D. (Film, Television, and Digital Media)
Leah A. Lievrouw, Ph.D. (Information Studies)
Stephen D. Mamber, Ph.D. (Film, Television, and Digital Media)
Chon A. Noriega, Ph.D. (Film, Television, and Digital Media)
Vivian Sobchack, Ph.D. (Film, Television, and Digital Media)
Peter Wollen, B.A. (Film, Television, and Digital Media)

Associate Professors
Howard Besser, Ph.D. (Information Studies)
John Caldwell, Ph.D. (Film, Television, and Digital Media)
Anne Gilliland-Swetland, Ph.D. (Information Studies)
Gregory H. Leazer, D.L.S. (Information Studies)

Assistant Professors
Jonathan Turner, Ph.D. (Information Studies)
Steven Ricci, Ph.D. (Film, Television, and Digital Media)

Lecturer
Lisa Kernan, Ph.D.

Visiting Professors
Elizabeth Cohen, Ph.D. (Information Studies)
Jan-Christopher Horak, Ph.D.

Scope and Objectives

The Moving Image Archive Studies M.A. is an interdepartmental degree program hosted by the Information Studies Department, Film, Television, and Digital Media Department, and UCLA Film and Television Archive. The program is an intensive, specialized two-year course of study consisting of graduate seminars, directed studies, and an extensive internship program, as well as special topic screenings, guest lectures, and technical demonstrations.

The goal of the program is not merely training, but a broad education grounded in historical, critical, and theoretical study. The subject matter encompasses the aesthetics and history of film and television, the cultural responsibilities of selection and curatorship, access and programming for the public, collection management, cataloging and documentation, and technical aspects of preservation and restoration. Graduate seminars, directed studies, and internships are taught by a unique combination of UCLA faculty members, academic scholars, top-level preservationists, technical experts, and other archive specialists, supplemented by guest lecturers from outside the University.

The program recognizes that traditional models of archival work have been redefined in recent years to emphasize moving image preservation as an ongoing process of activities along a continuum that includes curatorship, laboratory preservation, storage management, cataloging, and access. The inseparability of preservation from access, for example, is now well established both within modern archival practice and scholarly research, as is the promise of new digital technologies for both restoration and documentation purposes. As such, the program encourages familiarity with all these closely related archival functions and provides opportunities for specialization within them. The general orientation of the program also recognizes the realities of a field that includes both large, national-level archives with a specialized staff as well as one- or two-person operations with local and regional mandates. It recognizes, for example, that the contemporary archival field is challenged by issues across the entire range of possible moving image collections from classical, feature-length, and commercial narrative fiction films to experimental, alternative format, independent, and/or personal productions.

A key goal is to link theory with practice. The program embraces hands-on activities in the UCLA Film and Television Archive and internships in the Los Angeles area at other archives, libraries, studios, and laboratories. The program also utilizes the superb facilities at the Film and Television Archive, the Film, Television, and Digital Media Department, and the Information Studies Department.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Moving Image Archive Studies Program offers the Master of Arts (M.A.) degree in Moving Image Archive Studies.

Moving Image Archive Studies

Course List

Film and Television (Film, Television, and Digital Media)

200. Bibliography and Methods of Research in Film and Television
203. Seminar: Film and Other Arts
206A. Seminar: European Film History
206C. Seminar: American Film History
207. Seminar: Experimental Film
208C. Seminar: Contemporary Film Theory
209A. Seminar: Documentary Film
209B. Seminar: Fictional Film
209D. Seminar: Animated Film
210. Seminar: Contemporary Broadcast Media
211A. Seminar: Historiography
217A. Seminar: American Television History
217B. Seminar: Selected Topics in Television History
218. Seminar: Culture, Media, and Society
219. Seminar: Film and Society
220. Seminar: Television and Society
221. Seminar: Film Authors
222. Seminar: Film Genres
224. Computer Applications for Film Study
246. Issues in Electronic Culture
270. Seminar: Film Criticism
Music
School of the Arts and Architecture

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Jon Robertson, D.M.A., Chair

Professors
Roger Bourland, Ph.D.
Kenneth Burrell, B.A.
Paul Coletti, B.A.
Juliana Gondek, M.M.
Gary G. Gray, M.M.
Gordon Henderson, M.M.E.
Mark Kaplan, B.A.
Ian Krousé, D.M.A.
D. Thomas Lee, D.M.A.
Jens Lindemann, M.M.
Vitaly Margulis, M.M.
Donald Neuen, M.A.
Walter Poncé, D.M.A.
Paul V. Reale, Ph.D.
Jon Robertson, D.M.A.

Robert S. Winter, Ph.D. (Presidential Professor of Music and Interactive Arts)

Professors Emeriti
Elaine R. Barkin, Ph.D.
Paul E. Des Marais, M.A.
Maurice Gerow, Ph.D.
Frederick F. Hammond, Ph.D.
Thomas F. Harmon, Ph.D.
Henri Lazarof, M.A.
Roy E. Travis, M.A.

Associate Professors
Frank Heuser, Ph.D.
David S. Lefkowitz, Ph.D.

Assistant Professor
Vicki Lind, Ph.D.

Senior Lecturers S.O.E.
John L. Hall, M.M.
Sheridon W. Stokes

Senior Lecturers Emeriti
Maureen D. Hooper, Ed.D.
Bess Karp, M.A.
Samuel Krachmalnick

Lecturers
Paul Chiara, Ph.D.
Lou Anne Neill, M.A.
Mitchell T. Peters, M.M.

Adjunct Professors
Tommy Johnson, B.M.
Christopher Hanulik, B.M.

Adjunct Associate Professors
William Booth, M.M.
William Vendice, B.A.

Adjunct Assistant Professors
Mark Carlson, Ph.D.
Charles A. Coker, M.M.
Judith Hansen, B.A.
Jennifer Judkins, Ph.D.
Marion Kuszyk, M.M.
Douglas Masek, D.M.A.
Brian O’Connor, B.M.
Peter Yates, D.M.A.

Visiting Professors
Heinz Blankenburg
Christoph Bull, D.M.A.

Visiting Associate Professor
Alan Chapman

Visiting Assistant Professors
Rozemarie Krovoza, M.M.
Jennifer Snow, D.M.A.

Scope and Objectives

Students interested in a concentration in music history and literature should consider the majors in Music History and Musicology offered through the College of Letters and Science; those interested in a concentration in world music should consider the major in Ethnomusicology offered through the School of the Arts and Architecture.

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 provides a foundation for an academic or professional career and affords valuable cultural background.

At the graduate level, specialized studies leading to the degrees of Master of Arts and Doctor of Philosophy are offered in composition; specialized studies leading to the degrees of Master of Music and Doctor of Musical Arts are offered in all classical solo instruments, voice, and conducting.

Undergraduate Study

Music B.A.

Admission

All applicants for admission and change of major are required to pass an audition in their principal performing medium.

Preparation for the Major

Required: Music 20A, 20B, 20C; 12 units from courses 60A through 65; 12 units of performance organizations (courses C90A through 90N) for nonkeyboard instrumentalists and vocalists for a letter grade (6 units required for keyboard instrumentalists); Music History 26A, 26B, 26C. Students taking string, woodwind, brass, or percussion lessons must select from Music C90E, 90F, C90G, C90M (Fall Quarter only), or 90N; students taking vocal lessons must select from C90A, 90D, or 90L; students taking keyboard or guitar lessons may choose from C90A through 90N. Students must participate in a minimum of two different organizations over the course of their stay at UCLA. In addition, they 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 except composition and performance keyboard instrumentalists): A minimum of 48 upper division units, including Music 120A, 120B, 120C, Music History 126A, 126B, 126C, and courses selected from one of the concentrations listed below.

Composition: A minimum of 65 upper division units, including Music 104A or 104B, 106A, 106B, 116, 120A, 120B, 120C (accelerated sections), 123A, 123B, 123C, 124A or 124B or 124C, C176, and at least 8 elective units selected from courses 104A or 104B (if not already taken), 117, 118A, 118B, additional terms of 123A, 123B, 123C, 124A or 124B or 124C, C176, and at least 8 elective units selected from courses 104A or 104B (if not already taken), 199, Ethnomusicology 117, 128, C136A, C136B, 146, C156A, 156B, 157, 158A, 158B, 158C, 160, 170, 181. A senior recital, to include at least 30 minutes of original music, is also required (exceptions by petition only).

Music Education: Music 100A, 100B, 100C, 116, 117, 8 units from courses 115A through 115E. Students are encouraged to take additional coursework from 118A, 118B, 199, Ethnomusicology 170, 174 as their schedules allow. They are required to enroll in the type of
Music / 421

The Department of Music offers the Master of Music (M.M.) degree, Doctor of Musical Arts (D.M.A.) degree, and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Music.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.M.) degree, Doctor of Musical Arts (D.M.A.) degree, and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Music.

Music

Lower Division Courses

1A-1B. Fundamentals of Music. (4-4) Lecture, three hours; discussion, two hours. Designed for non-music 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, sevenths, secondary dominants, and modulation; organization of melody and accompaniment; simple analysis; sight-singing and ear training.


4A-4B-4C. Basic Musicianship. (2-2-2) Laboratory, three hours. Class instruction in elementary ear training and keyboard skills.

7. Understanding Movie Music. (4) Lecture, four hours; outside study, eight hours. Musical experience helpful, but not required. Brief historical survey of film music, with strong emphasis on recent development: Japanese animation, advertising, and MTV, as well as computer tools and digital scoring methods. Designed to inspire and inform those interested in movie music. Offered in summer only; P/NP or letter grading.

8G. Graduate Piano Sight-Reading. (2) Limited to graduate students. Designed to help entering graduate students remediate entrance deficiencies, to be cleared by examination. May be repeated. S/U grading.

10. Computer-Assisted Sight-Singing Laboratory. (2) Lecture, two hours; laboratory, one hour. Requisite: course 1A. Individualized, self-instructional approach for development of sight-singing through use of a music computer, keyboard instrument, and linear program learning.

15. Art of Listening. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisi-
tion of listening skills through direct interaction with live performances, musicians, and composers. Relation-
ship of listening to theoretical, analytical, histori-
cal, and cultural frameworks. Music as aesthetic ex-
perience and cultural practice. P/NP or letter grading.

19. Hollywood Musical and the American Dream. (4) Lecture, four hours; discussion, one hour. Exam-
ination of composers, writers, and filmmakers whose creative efforts changed how the world came to view the American dream. Full features and music clips illus-
trate American life as seen through the Hollywood musical. P/NP or letter grading.

20A. Music Theory I. (4) Lecture, two hours; discussion, six hours. Preparation: passing score on depart-
mental examination. Theory: species counterpoint through fifth species; description of triads and inver-
sions; mensuration: interval recognition; fixed-do solfege of diatonic melodies; one-part dictation of dia-
tonic melodies; two-part dictation of small-compass, note-against-note melodies; simple rhythmic dicta-
tion; use of treble, alto, and bass clefs.

20B. Music Theory II. (4) Lecture, four hours; discussion, four hours. Requisite: course 20A with a grade of C or better. Theory: harmonic dictation through sec-
ondary dominants and diminished sevenths; modula-
tions to dominant and relative keys; writing of four-
part chorales; style composition in baroque dance forms; introduction to figured bass notation. Musician-
ship: harmonic dictation, including secondary dom-
inants and diminished sevenths, but not modulations; more advanced two-part dictation; chromatic one-part dictation; more advanced sight-singing; keyboard (three-part open score in homophonic textures, intro-
duction to tenor clef).

20C. Music Theory III. (4) Lecture, four hours; discussion, four hours. Requisite: course 20B with a grade of C or better. Theory: chromatic harmony in-
cluding development of tonality, 1800 to 1850; appro-
priate analysis and style composition. Musicianship: advanced sight-singing; two-part contrapuntal dicta-
tion; keyboard harmony (harmonic sequences in ma-
jor and minor keys); reading in open score of four ho-
mophonic parts in four clefs.

23. Composition Workshop. (2) Requisites: courses 20A, 20B. May be repeated for credit.

60A-65. Undergraduate Instruction in Perform-
ance. (2 each) Limited to Music majors (all fresh-
man/sophomore majors, and junior/senior majors not in performance specialization). Individual instruction of one hour per week. Students must perform in a practicum once during academic year. Grades are as-
signed by applied instructor in Fall and Winter Quarters and by jury examination in Spring Quarter. May be repeated for credit. 60A. Violin; 60B. Viola; 60C. Cello; 60D. String Bass; 60E. Harp; 60F. Classical Guitar; 60G. Violin da gamba; 60K. Lute; 61A. Flute; 61B. Oboe; 61C. Clarinet; 61D. Bassoon; 61E. Saxo-
phone; 62A. Trumpet; 62B. French Horn; 62C. Trom-
bone; 62D. Tuba; 63. Percussion, 64A. Piano; 64B. Organ; 64C. Harpsichord; 65. Voice.

80A. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Simple key-
board skills together with basic aspects of music the-
ory and its practical application to keyboard: sight-
singing, tonality, chords, scales, cadences, simple compositions, and improvisations. Offered in summer only. P/NP or letter grading.

80F. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for the instrument; coverage of note reading and tab-
lature. Offered in summer only. P/NP or letter grading.

C90A. UCLA Chorale. (4) Activity, four hours. Prepa-
ration: audition. Select mixed ensemble of 50 to 60 voices performing choral music, appropriate for a con-
cert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C480. P/NP or letter grading.

C90B. Collegiate Chorus. (2) Nonaudition mixed cho-
rus of 50 to 150 voices performing medium- and con-
cert-length choral works from baroque to the present. Collegiate Chorus performs only as part of “Choral Union,” a large chorus made up of all of the choral en-
sembles. May be repeated for credit without limitation. P/NP or letter grading.

C90C. Chamber Singers. (2) Activity, three hours. Preparation: audition. Select mixed ensemble of 16 to 20 voices performing chamber choral music of all pe-
riods, with emphasis on Renaissance and baroque music. May be repeated for credit without limitation. P/NP or letter grading.

C90D. Opera Workshop. (2) Activity, six hours. Prepa-
ration: audition. Rehearsal and performance of scenes and complete operas, as well as repertoire, stage movement, and foreign language diction coach-
ing. May be repeated for credit without limitation. P/NP or letter grading.

C90E. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of sym-
phonic literature, as well as orchestral accompani-
ment for operatic and major choral works. May be re-
peated for credit without limitation. May be concur-
rently scheduled with course C481. P/NP or letter grading.


C90G. Wind Ensemble. (2) Activity, four hours. Prepa-
ration: audition. Group performance of concert litera-
ture for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C482. P/NP or letter grading.

C90L. Music Theater Workshop. (2) Activity, six hours. Preparation: audition. Rehearsal and perfor-
mance of scenes and complete musical theater pro-
ductions, including repertoire and stage movement coach-
ing. May be repeated for credit without limitation. P/NP or letter grading.

90M. 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. P/NP or letter grading.
Upper Division Courses

100A-100B-100C. Music in American Education. (4-4-4) Lecture, four hours; laboratory, one hour. Requisites: courses 20A, 20B, 20C, 116, 120A, 120B, 120C, Music History 26A, 26B, 26C. Critical study and analysis of philosophy, history, organization, curriculum, and literature of music programs for elementary and secondary schools in American education. Each course may be taken independently for credit. Letter grading: 100A. General Music; 100B. Choral Music; 100C. Instrumental Music.

104A. Modal Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In-depth exploration of styles and techniques of counterpoint of 15th and 16th centuries through writing and analysis of important forms of the period, including species, canons, free counterpoint, cantus, firmus, point of imitation, motet, ricercar, 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 20C (accelerated section), 123C. Ranges and characteristics of instruments, with exercises in scoring, P/NP or letter grading.

106B. Orchestration II. (4) Discussion, three hours. Requisites: courses 106A, 120C (accelerated section), 123C. Scoring and analysis of ensembles and full orchestra. P/NP or letter grading.

109A-109B-109C. Composition for Motion Pictures and Television. (2-2-2) Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Course 109A is requisite to 109B, which is requisite to 109C. Composition of music for dramatic and documentary film in cinema and television. Techniques used in recording and editing.

113A-113B. Music Literature for Children. (4-4) Lecture, three hours; laboratory, one hour. Requisites: course 1A, Music History 2A. Course 113A is not requisite to 113B. Designed for nonmajors, particularly elementary education students. Study of music literature applicable to elementary school programs. 113A. Emphasis on listening analysis, movement, and improvisation. 113B. Emphasis on class performance — music reading, singing, and folk instruments.

115A-115E. Study of Instrumental and Vocal Techniques. (1 each) Laboratory, three hours. Requisite or corequisite: course 20A. Applied studies in basic performance techniques and tutorial materials. Each of courses 115A through 115D may be repeated once for credit. Letter grading. 115A. Strings; 115B. Woodwinds; 115C. Brass; 115D. Percussion; 115E. Voice.

115F. Technology in Music Education I. (1) Laboratory, three hours. Requisite or corequisite: course 20A. Provides music educators with tools and knowledge necessary to use appropriate computer hardware and software for purposes of music sequencing, arranging, and scoring, with emphasis on applications that are appropriate for use in public and/or private schools for levels K–12 and higher education. Activities include familiarization with computer systems and software, computer-assisted music notation and publication, and the application of basic sequencing techniques. Letter grading.

115G. Technology in Music Education II. (1) Laboratory, three hours. Requisite: course 115F. Introduction to instructional uses of computers in music classrooms, with emphasis on practical information necessary to intelligently purchase and implement microcomputers in schools, including training in arranging, multimedia production, and classroom instruction techniques. Additional topics include teacher-based administrative functions (grading, communication, research, databases, financial management). Letter grading.


117. Study and Conducting of Instrumental and Choral Literature. (2) Lecture, three hours. Requisite: course 116. Introduction to conducting and technique of conducting both instrumental and choral repertoire. In addition to further development of conducting gestures, focus on score study techniques, rehearsal techniques, style, and interpretation as applied to choral and instrumental repertoire.

118A-118B. Advanced Study and Conducting of Choral and Instrumental Literature. (2-2) Lecture, one hour; laboratory, two hours. Requisites: courses 116, 117. Detailed investigation of musical styles, performance practices, and rehearsal techniques. Each course may be repeated once for credit. 118A. Choral; 118B. Instrumental.

120A. Music Theory IV. (4) Lecture, four hours; discussion, four hours. Preparation: passing score on departmental first-year examination. Requisite: course 20C with a grade of C (2.0) or better. Theory: curricular companion including choral prelude; two-part invention; exposition and first modulation of a three-part invention; canonic principles; analysis of inventions, canons, and fugues. Musicianship: sight-singing of extended chord progressions; advanced harmonic dictation (diatonic and chromatic); keyboard harmonization of modulating melodies; elementary score reading.

120B. Music Theory V. (4) Lecture, four hours; discussion, four hours. Requisite: course 120A with a grade of C (2.0) or better. Theory: advanced chromatic harmony including development of harmony from 1850; analytical projects; style composition. Musicianship: advanced score reading; advanced harmonic dictation; preparation for departmental examination.

120C. Music Theory VI. (4) Lecture, four hours; discussion, two hours; listening, two hours. Requisite: course 120B with a grade of C (2.0) or better. 20thcentury harmonic language, including nonfunctional harmony, polytonality, free atonality, serialism, and minimalism.

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 major works to smaller forms, including style composition and 20th-century techniques. Each course may be repeated once for credit, but first year must be taken in sequence.


124C. Scoring and Arranging for Choral Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section). Scoring and arranging for choral ensembles, including a capella as well as choruses with instrumental support. Preparation and production of score and parts. At least one reading by UCLA Chorale or other choral group scheduled. Letter grading.

M131. Development of Latin Jazz. (4) Same as Ethnomusicology M131. 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.

136A-136B-136C. Historical Survey of Music Theater. (4-4-4) Lecture, four hours; discussion, one hour. Historical survey of music theater, tracing development of the art form from its European beginning to the American music theater of today. P/NP or letter grading. 136A. Early Forms to 1900. 136B. 1900 to 1945. 136C. 1945 to 1975.

160A-165. Undergraduate Instruction in Performance for the Performance Specialist. (2) Limited to junior/senior Music majors who have been accepted by audition into performance specialization. Individual instruction of one hour per week. Students must perform in a noon concert once during their junior year and must present a full recital in their senior year. Grades are assigned by applied instructor in Fall and Winter Quarters and assistant professor in Spring Quarter. May be repeated for credit. 160A. Vi- olin; 160B. Viola; 160C. Cello; 160D. String Bass; 160E. Harp; 160F. Classical Guitar; 160G. Classical Bass; 160H. Lute; 161A. Flute; 161B. Oboe; 161C. Clarinet; 161D. Bassoon; 161E. Saxophone; 162A. Trumpet; 162B. French Horn; 162C. Trombone; 162D. Tuba; 163. Percussion; 164A. Piano; 164B. Organ; 164C. Harpsichord; 165. Voice.

C167. Selected Topics in Keyboard Literature. (4) Lecture, three hours. Corequisite: course 164A or 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 performances by participants. May be concurrently scheduled with course C267.

174A-174B-174C. Language of Song. (2-2-2) Discussion for Music majors. Sounds of the language as applied to singing, including use of International Phonetic Alphabet, translation of art song texts, and application to student's current vocal repertoire. Background in the language is encouraged. 174A. German; 174B. French; 174C. Italian.

C175. Chamber Ensembles. (2) Preparation: audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of their particular instrument as appropriate to the ensemble. 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.
261A-261F. Problems in Performance Practices. (4 each) Seminar, three hours; outside study, nine hours. Limited to graduate students. In- vestigation of problems of performance as related to the period; analytical reports and practical applications in class demonstration. May be repeated for credit. S/U or letter grading. 265A. Medieval, 265B. Renaissance, 265C. Baroque, 265D. Classical, 265E. Romantic, 265F. Contemporary.

266A-266B. Seminars: Music of the 20th Century. (4-4) Seminar, three hours. Required for graduate music students. Discussion and analysis of major works of the 20th century, with emphasis on study of groups of works written at the same time in history. 266A, 1900 to 1949; 266B, 1950 to the Present. 265C. Selected Topics in Keyboard Literature. (4) Lecture, three hours. Corequisite: course 464A or 464B or 464C. In-depth study of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and actual performances by participants. May be concurrently scheduled with course C167. 270A-270G. Seminars: Music Education. (6 each) Seminar, three hours; outside study, six hours. May be repeated for credit. 270A, 19th Century; 270B, Non-Western Musics; 270C. Curriculum Innovations; 270D. Tests and Measurements; 270E. Choral Literature; 270F. Instrumental Literature; 270H. Multicultural. 271. Music and Electronic Technology. (4) Lecture, four hours; media laboratory, one hour. Designed for graduate music performance students. Survey of music and its place in emerging digital world of the arts, including training in arranging and multimedia production.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and other individuals who have had little or no previous experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, philosophy, and teaching processes of this approach to music instruction for children. Offered in summer only. S/U or letter grading. 331A-331B-331C. Orff Schulwerk Training Courses. (4-4-4) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Corequisite: course 330. Course 331A is requisite to 331B, which is requisite to 331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. Students who successfully complete each course are eligible for certification at that level through the American Orff Schulwerk Association. Offered in summer only. S/U or letter grading. 331A. Level I (Beginning); 331B. Level II (Intermediate); 331C. Level III (Advanced).

341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Lecture, 25 hours. Comprehensive review of current trends in band/wind ensemble programs, including nonverbal communication, conducting, and rehearsal techniques. Study of new and recently published literature and discussions of administration of a band/wind ensemble program. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

342. Contemporary Marching Band. (1) Lecture, 12 hours. Innovative approaches to marching band programs for high school and college teachers, including creative approaches to charging and drill design and use of microcomputers. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

343. Effective and Creative String Teaching. (2) Lecture, two hours. Comprehensive course for teachers of string classes and string orchestras at elementary, junior high, and high school levels. Topics include development of instructional techniques for violin, viola, cello, and bass; critical examination of current pedagogical materials; and reading sessions of recently published music for string orchestra. May be repeated for credit without limitation. Offered in summer only. S/ U or letter grading.

343L. Effective and Creative String Teaching Laboratory. (1) Laboratory, 12 hours. Exploration of string orchestra, ensemble, and chamber music literature appropriate for elementary, junior high, and high school bands. Examination of this literature in reading and discussion sessions. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

345. 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 for solving 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.

350A. Introduction to Computer-Assisted Instruction of Music. (2) Lecture, three hours; laboratory, two hours. Introduction to instructional uses of computers in music classroom, with emphasis 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.

350B. Exploration of MIDI Computer Resources: Keyboards and Synthesizers. (2) Lecture, one hour; laboratory, three hours. Creative use of MIDI-based synthesizers under computer control. Exploration of available hardware resources allied with various software sequencing packages. Use of software for computer-based music printing. Hands-on experience. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

351. World Music in the Classroom: Implementation through Orff Schulwerk. (3) Lecture, 36 hours. From Orff Schulwerk perspective, presentation of current visual and aural materials from various world cultures and methods for teaching world musics in the classroom. Discussions of problems — practical and philosophical — of incorporating world musics into curriculum. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

370. Music in General Education. (2) Designed for Graduate School of Education and Information Studies teacher training program students (all music students must take course 370 concurrently with Education 100A, 100B, 112, 312, 315A, 315B, and supervised teaching). Critical discussions related to supervised teaching in progress. May be repeated twice for credit.

371. The Marching Band in Secondary Education. (2) Study of contemporary marching band as a component of the music curriculum in secondary education, including current approaches, practices, and problems associated with the marching band, as well as historical perspective. S/U or letter grading.

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

401. New Music Forum. (2) Tutorial/laboratory. Preparation: one year of graduate study in music at UCLA. Interactive course in preparation and performance of a premiere work especially composed for a graduate performer or performers by a graduate composer at UCLA.

469. Instrumental Pedagogy. (4) Lecture, three hours; outside study and preparation, nine hours. Preparation: advanced proficiency on a musical instrument. Designed for graduate music students. Study of art of teaching a musical instrument, including discussions of philosophy of teaching, learning process itself, and teaching of musical interpretation. Individualized study of various considerations, such as physical/technical aspects and pedagogical repertoire, peculiar to teaching student's primary instrument. Letter grading.

470. Opera Studio for Graduate Students. (4) Laboratory, six hours. Designed for graduate students. Performance techniques and repertoire for graduate students in opera.

471. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of teaching techniques for voice, including thorough investigation of the vocal mechanism and its use, plus study of noted teachers of the past and present. Further emphasis on practical teaching experience in class.

472. Master Class in Opera. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of opera literature. May be repeated for credit. S/U or letter grading.

475. Master Class in Conducting. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of musical literature in specialized field of conducting. May be repeated for credit. S/U or letter grading.

C480. UCLA Chorale. (2) Activity, four hours. Preparation: audition. Designed for M.M. and D.M.A. students. Select mixed ensemble of 50 to 60 voices performing choral music appropriate for a concert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C480A.

C481. 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 C490E. S/U or letter grading.

C482. Wind Ensemble. (2) Activity, four hours. Preparation: audition. Designed for M.M. and D.M.A. students. Group performance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C490G.

C485. Chamber Ensembles. (2) Preparation: audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to the ensemble. 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. S/U or letter grading.

495. Introductory Practicum for Teaching Appren- tices in Music. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music Department. Required of all new teaching apprentices. Special course designed with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

496. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applications of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.


596A. Directed Individual Studies in Orchestration and Composition. (2, 4, or 6) Tutorial, to be arranged. Only 2 units may be applied toward M.A. or M.M. degree requirements. May be repeated for credit. S/U or letter grading.

596B. Directed Individual Studies in Performance Practices. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward M.A. or M.M. degree requirements. May be repeated for credit. S/U or letter grading.

596D. Directed Individual Studies in Performance Practices. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward M.A. or M.M. degree requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) Tutorial, to be arranged. S/U grading.

598. Guidance of M.A. Thesis. (4, 8, or 12) Tutorial, to be arranged. Only 4 units may be applied toward M.A. or M.M. degree requirements. May be repeated for credit. S/U or letter grading.

599. Guidance of Ph.D. or D.M.A. Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

Related Courses
World Arts and Cultures

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Robert A. Walser, Ph.D., D.M.A., Chair

Professors
Murray C. Bradshaw, Ph.D.
Raymond L. Knapp, Ph.D.

Susan K. McClary, Ph.D.
Robert A. Walser, Ph.D., D.M.A.

Professors Emeriti
Malcolm S. Cole, Ph.D.
Frank A. D'Accone, Ph.D.
Marie Louise Göllner, Ph.D.
Edwin H. Hanley, Ph.D.
Richard A. Hudson, Ph.D.
Gilbert Reaney, M.A.
Robert M. Stevenson, Ph.D.
Robert L. Tusler, Ph.D.

Associate Professor
Tamara J.M. Levitz, Ph.D.

Assistant Professors
Robert W. Fink, Ph.D.
Elisabeth C. LeGuin, Ph.D.
Mitchell B. Morris, Ph.D.
Elizabeth R. Upton, Ph.D.

Scope and Objectives
The Department of Musicology provides students with a broad understanding of the history of the music of Europe and North America. Courses cover virtually every period, style, and genre, including jazz and other popular musics.

Music history appeals to undergraduate students with musical backgrounds whose interests and principal career goals lie in areas other than professional performance. The undergraduate program prepares students for graduate programs in music and related fields and offers training within the broader context of the humanities.

The graduate program offers courses leading to the M.A. and Ph.D. degrees. It is designed to equip students to pursue careers not only in teaching but also in other areas that require bibliographical skills and training in research methodologies. The department provides teaching and research assistantships each year for qualified students.

Undergraduate Study
Music History B.A.

Admission
The Music History 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: Music 20A, 20B, 20C, Music History 26A, 26B, 26C, and 6 units (three terms) of performance organizations selected from Ethnomusicology 91A through 91Z or Music C90A through 90M. Enrollment in Music 20A requires either a minimum score on the Music Theory Placement Examination administered by the Music Department or successful completion of Music 3 (or a comparable year-long college-level music theory sequence). Students with limited musicianship skills may find it useful to enroll in Music 4A, 4B, 4C concur-
rently with Music 20A, 20B, 20C. Transfer applicants may petition to waive courses 20A, 20B, 20C if they have completed equivalent work prior to enrolling at UCLA.

Transfer Students
To be admitted as Music History majors, transfer students with 90 or more units must complete the following courses prior to admission to UCLA: one year of music theory and one year of music history and analysis. Experience in music performance is strongly recommended.

The Major
Required: Music 120A, 120B, 120C, Music History 101, 126A, 126B, 126C; three courses from Music History 127A through 127G; two additional upper division music history courses (8 units) or, via petition, lower division courses with additional work as specified by the instructor; and three upper division ethnomusicology courses (12 units), each from a different geographical or cultural area. Students may petition to substitute theory courses in ethnomusicology or music history for one or more of Music 120A, 120B, 120C, as appropriate. Students may enroll in lessons from the Music Department, if instructors are available.

Honors Program
The honors program is designed for Music History majors who wish to carry 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 junior and senior Music History majors who have completed a minimum of four upper division music history courses with a departmental grade-point average of 3.5 or better in upper division courses in the department and an overall GPA of 3.0 or better are eligible to apply. Normally, the thesis must be completed during Fall Quarter of the senior year.

To qualify for graduation with 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 at least one quarter of Music History 195 with a grade of A– or better on the resulting thesis.

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 at least one quarter of Music History 195 with a grade of A or better on the resulting thesis.

Music History Minor
The Music History minor provides undergraduates with an overview of music history and the study of music. Beyond the required introduction course, students may select from a wide variety of undergraduate courses that range through the history of European and American music.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Musicology.

Music History Lower Division Courses

2A-2B. Introduction to Literature of Music. (4-4) Lecture, four hours; laboratory, one hour. Course 2A is not required to 2B. Limited to undergraduate students. Prerequisites: Music 20A or equivalent. 2A. Technical and formal principles of music literature through the 18th century. Lecture, four hours; discussion, one hour. Course 2A is required to 2B. Limited to undergraduate students with an interest in musicology. 2B. Music literature from the mid-18th century to the present. Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition from its putative origins in ancient Greece to the present, with emphasis on historical context, musicology, and creation of the tradition itself. P/NP or letter grading.

4. The Beatles. (5) Lecture, four hours. Examination of life and music of the Beatles within social and historical contexts of the 1960s. P/NP or letter grading.

5. History of Rock and Roll. (5) Lecture, four hours. Analysis of forms, practices, and meanings of rock and roll music, broadly conceived, from its origin to the present. Emphasis on how this music has reflected and influenced changes in sexual, racial, and class identities and attitudes. Letter grading.
126A-126B-126C. History and Analysis of Music II. (4-4-4) Lecture, four hours; laboratory, one hour. Prerequisites: courses 26A, 26B, 26C. Course 126A is requisite to 126B, which is requisite to 126C. Students must receive a grade of C-- or better to proceed to next course in sequence. History and literature of music from 1815 to the present, with emphasis on analysis and representation of works of each style period. Materials selected illustrate history of style and changing techniques of composition. Letter grading.

127A-127B. Selected Topics in History of Music. (4 each) Lecture, three hours. Requisites: courses 26A, 26B, 26C. Designed as seminaries for undergraduate preparation in graduate work. Special aspects of music of each period studied in depth. P/NP or letter grading. 127A. Medieval and Renaissance; 127B. Baroque; 127C. Classic; 127D. Rococo; 127F. 20th Century; 127G. Other Topics.


132. Mozart. (5) Lecture, four hours; discussion, one hour. Designed for students who do not read music. Life, works, and mythology of Wolfgang Amadeus Mozart, in light of both his age and our own. P/NP or letter grading.


134. Beethoven. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Ludwig van Beethoven. P/NP or letter grading.


M136. Music and Gender. (5) Same as Women’s Studies M119P) Lecture, four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, the body, and sexuality by both male and female musicians; contributions of men to Western art and popular musics; methods in feminist and gaylesbian theory and criticism. Letter grading.

M137. Gay and Lesbian Perspectives in Pop Music. (5) Same as Lesbian, Gay, Bisexual, and Transgender Studies M192 Lecture, four hours; discussion, one hour. Survey of English-language popular music in the 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

139. History and Literature of Church Music. (4) Lecture, four hours. Study of forms and liturgies of Western church music. P/NP or letter grading.

140. Music, Media, and Consumer Society. (4) Lecture, four hours. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler), broadcast media (radio, television, MTV, Internet), and global capitalism (record labels, advertising, Muzak) on how we consume and are consumed by music. How music functions and malfunctions on records, under movies, behind ads, and in semiotic fabric of everyday life. Letter grading.

150. History of Jazz. (5) Lecture, four hours; discussion, one hour. Designed for Music History, Music, and Ethnomusicology majors, and other students with some background in musical performance and theory. History and analysis of variety of jazz styles, from late 19th-century forerunners to the present, with emphasis on social meanings of musical practices. Letter grading.

156. Studies in Musical Genres. (4) Lecture, four hours. Survey of musical genres, with emphasis on analysis of structural organization. P/NP or letter grading.

188. Topics in Music History. (4) Lecture, three hours; laboratory, one hour. Variable topics selected from several outstanding composers in Western art music. Consult Schedule of Classes for topics to be offered. Letter grading.


195. Honors Course. (4) Tutorial, two hours. Prepar- ration: completion of minimum of four upper division music history courses with departmental grade-point average of 3.5 or better and an overall GPA of 3.0. Limited to junior/senior Music History majors. One- to two-term independent research project under supervision of an appropriate faculty member, culminating in department honors thesis of approximately 25 pages. P/NP or letter grading.

199. Special Studies in Musicology. (2 or 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average. Limited to seniors. Individual studies in musicology resulting in a research project. May be repeated for a maximum of 8 units. P/NP or letter grading.

Musicology

Graduate Courses

200A. Research Methods and Bibliography. (6) Lecture, three hours. Designed for graduate musicology students. Survey of general bibliographic material in music and introduction to discipline. Letter grading.

200B. Historiography. (6) Seminar, three hours. Des- signed for graduate musicology, ethnomusicology, and music students. Critical examination of principles and procedures which inform historical study of mu- sic, with emphasis on impact of recent cultural theory. 200C. Contemporary Music Criticism. (6) Semi- nar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to recent developments in the field of musicology, focusing on problems of how music operates as a cultural practice and how musical meanings can most effectively be analyzed and written about. 210. Medieval Notation. (6) Lecture, three hours. Vocal and instrumental notation; paleography of the period. 211. Renaissance Notation. (6) Lecture, three hours. Vocal and instrumental notation; paleography of the period.


257. Music of the U.S. (6) Discussion, three hours. Designed for graduate students. Examination of prin- cipal figures and trends in music of the U.S. since the 18th century.

258-258F. Seminars: Historical Musicology. (6 each) Seminar, three hours. Requisite or corequisite: course 200A. Specific topics vary from year to year. May be repeated for credit. Letter grading. 258A. Me- dieval; 258B. Renaissance; 258C. Baroque; 258D. Classic; 258E. Romantic; 258F. 20th Century.

261A-261F. Performance Practices. (4 each) Lectures, three hours. Designed for graduate students. In- vestigation of primary source readings in perfor- mance practices as related to the period; analytical reports and practical applications in class demonstra- tions. May be repeated for credit. Letter grading.

261A. Medieval; 261B. Renaissance; 261C. Baroque; 261D. Classic; 261E. Romantic; 261F. Contemporary.

262. Contemporary Popular Music Studies. (4) Seminar, three hours. Designed for graduate stu- dents. Theoretical exploration of inter- disciplinary field of popular music studies. Analysis of how music, lyrics, and visual images produce mean- ings within contexts shaped by mass mediation, capital- istic, and political realities of gender, class, and race.


264. Seminar: Topics in Musicology. (6) Seminar, three hours. Designed for graduate students. Specific topics vary from term to term. May be repeated for credit.

265. Ideal of Authenticity in Performance: 1827 to the Present. (4) Seminar, four hours. Preparation: ability to read musical notation and knowledge of mu- sical history equivalent to successful completion of courses 126A, 126B, 126C. Not a course in perfor- mance, but intellectual history of performance and inter- pretation from solidification of classical canon to disintegration. Letter grading.

296. Research Topics in Musicology. (2) Seminar, two hours. Preparation: consultation with instructor. Designed for musicology graduate or Ph.D. contraceptors. In- troduction to history and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

298. Seminar: Research Methods. (2) Seminar, two hours. Limited to second-year musicology graduate students and students with master’s degrees. Devel- opment of advanced knowledge and bibliographic control in three historical areas: musicological specialization. May be repeated for credit. S/U grading.


375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice person- nel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guide- ance and supervision of a regular faculty member re- sponsible for curriculum and instruction at the Univer- sity. May be repeated for credit. S/U grading.

495. Introductory Practicum for Teaching Appren- tices in Musicology. (2) Eight weekly two-hour semi- nar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appoint- ment as teaching apprentice in Music or Musicology Department. Required of all new teaching apprentic- es. Special course dealing with problems and practic- es of teaching music at college level. May not be ap- plied toward degree requirements. S/U grading.

597. Preparation for M.A. Comprehensive Exami- nation or Ph.D. Qualifying Examinations. (2 or 4) Preparation: completion of all M.A. or Ph.D. course and language requirements. Limited to graduate stu- dents. S/U grading.
Near Eastern Languages and Cultures / 427

NEAR EASTERN LANGUAGES AND CULTURES
College of Letters and Science

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William M. Schniedewind, Ph.D., Chair

Professors
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Elizabeth F. Carter, Ph.D.
S. Peter Cowe, Ph.D. (Narekatsi Professor of Armenian Studies)
Robert K. Englund, Ph.D.
Lev Haak, Ph.D.
Ismail K. Poonawala, Ph.D.
Yona Sabar, Ph.D.
Latifeh E. Hagigi, M.A.
Nancy Ezer, Ph.D.
Carol A. Bakhos, Ph.D.
Willemina Z. Wendrich, Ph.D.

Associate Professors
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William M. Schniedewind, Ph.D.

Assistant Professors
Carol A. Bakhos, Ph.D.
Willemina Z. Wendrich, Ph.D.

Lecturers
Nancy Ezer, Ph.D.
Michael Fishbein, Ph.D.
Latifeh E. Hagigil, M.A.
Gayane Hagopian, Ph.D.
Anahid Keshishian, Ph.D.
Michael Rosenbaum, Ph.D.

Adjunct Assistant Professor
David G. Hirsch, M.A.

Scope and Objectives
The mission of the department is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization.

The department offers instruction in the major modern and ancient languages of the Near East: Akkadian, ancient Egyptian, Arabic, Armenian, Berber, Coptic, Hebrew, Persian, and 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 Eastern Civilizations, Arabic, Hebrew, Iranian Studies, and Jewish Studies. Master’s and Ph.D. programs are offered in ancient Near Eastern civilizations, Arabic, Armenian, Hebrew, Iranian, 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: (1) Ancient Near Eastern Civilizations, (2) Arabic, (3) Hebrew, (4) Iranian Studies, and (5) Jewish Studies. In each of these fields students must meet the prerequisites 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 Eastern Civilizations B.A.
There are four options for a major in Ancient Near Eastern Civilizations: (1) Mesopotamia, (2) Egypt, (3) Near Eastern archaeology and cultures, and (4) biblical studies.

Preparation for the Major
Requisite for all options: Near Eastern Languages 50A; requisites for options 1, 2, and 3: German 1, 2, 3 (French 1, 2, 3 may be substituted); requisites for option 4: Hebrew 1A, 1B, 1C. Majors in all four fields are encouraged to continue their language study beyond the requisites levels.

Transfer Students
To be admitted as Ancient Near Eastern Civilizations majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course for all options, one year of German or French for the options in Mesopotamia, Egypt, and Near Eastern archaeology and cultures, and one year of Hebrew for the biblical studies option.

The Major
Majors in all four options are required to take 14 upper division courses selected in consultation with the program adviser.

Majors selecting option 1 (Mesopotamia) are required to take 14 courses as follows: four language courses (Semitics 140A, 140B, 141, 142) and two literature and history courses (Ancient Near East M105, 150A). The remaining eight courses are to be selected from Ancient Near East M104A, M104B, M104D, M104E, M140, 140B, 140C, 145, 150B, 150C, 160A, 160B, 161, 162, 163, 164A, 164B, 164C, 170, Iranian 169, Jewish Studies M150A. One course must be in research methodology (such as Anthropology C115R, 130, 150, English 140A, or Linguistics 110) taken preferably in another department with the consent of the adviser.

Majors selecting option 2 (Egypt) are required to take 14 courses as follows: four language courses (Ancient Near East 120A, 120B, 120C, 121A) and three literature and history courses (Ancient Near East M104A, M104B, 150B). The remaining seven courses are to be selected from Ancient Near East M105, 121B, 121C, 123A, 123B, 124, 130, 150A, 150B, 150C, 160A, 160B, 161, 162, 163, 164A, 164B, 164C, 170, Art History 101A, 101B, Iranian 169, Jewish Studies M150A, M191A. One course must be in research methodology (such as Anthropology C115R, 130, 150, English 140A, or Linguistics 110) taken preferably in another department with the consent of the adviser.


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, 1119 HERSHEY HALL, (310) 825-4995; for UCLA-affiliated excavations, contact the departmental student affairs officer at (310) 825-4165.
Arabic B.A.
Preparation for the Major
Required: Arabic 1A, 1B, 1C.
Transfer Students
To be admitted as Arabic majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic.

The Major
Required: Fourteen courses, including seven from Arabic 102A, 102B, 102C, 103A, 103B, 103C, 120, 130, 141, 142; three literature and culture courses from Arabic 150, 151, Islamins 110, 130, 151; and two history courses from History 106A, 106B, 106C, 107, 108. The remaining two courses may be selected from Arabic 111A, 111B, 111C, 112A, 112B, 112C, Art History 104A, Geography 187, History 106A, 106B, 106C, 107, 108, Political Science 132A, 132B, 157, 165, Sociology 187. No more than two of the 14 courses may be credited through a proficiency test administered by the department.

Hebrew B.A.
Preparation for the Major
Required: Hebrew 1A, 1B, 1C, or equivalent.
Transfer Students
To be admitted as Hebrew majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Hebrew.

The Major
Required: Fourteen courses, including Hebrew 102A, 102B, 102C, 103A, 103B, 103C; one term of Hebrew 120 or 125; and one term of Hebrew C140. The remaining six courses may be selected from Hebrew 101, 130, 135, C140, 160, 170, 190A, 190B, 199, Jewish Studies M150A, 150B, 175, M191A, M191B, Semiotics 110, 115, 130, 140A, 140B. No more than two of the 14 courses may be credited through a proficiency test administered by the department. A maximum of two Hebrew 199 courses (8 units total) may be applied toward the major.

Iranian Studies B.A.
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.

Preparation for the Major
Required: Iranian 1A, 1B, 1C, or equivalent.
Transfer Students
To be admitted as Iranian Studies majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Persian.

The Major
Required: Fourteen courses, including at least six from Iranian 102A, 102B, 102C, 103A, 103B, 103C, 140, 141, 142, 180A, 180B and at least five courses from Ancient Near East 150A, 150B, 163, Arabic 1A, 1B, 1C, Art History 104A, 104B, C104C, Ethnomusicology 208B, History 106A, 106B, 106C, Iranian 120, 169, 170, 190A, 190B, 197A, 199, 220A, 220B, 231A, 250, Political Science 157. The remaining three courses may be selected from any of the above. No more than two of the 14 courses may be credited through a proficiency test administered by the department. A maximum of two Iranian 199 courses (8 units total) may be applied toward the major.

Jewish Studies B.A.
Students must select one of five tracks: (1) Jewish history, (2) Jewish religions, (3) Jewish literature and culture, (4) American Jewish literature and culture, or (5) Israeli studies.

Preparation for the Major
Required: Jewish Studies 10.
Transfer Students
To be admitted as Jewish Studies majors, transfer students 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.

The Major
Majors in all five tracks are required to take 14 upper division courses selected in consultation with the program adviser, including seven required core courses, five courses within the selected track, and two electives to be chosen from Hebrew, Jewish studies, or any courses listed under any track.

Core requirements include Jewish Studies M100 (or History M191H); one year of upper division Hebrew (either Hebrew 102A, 102B, and 102C, or Hebrew 103A, 103B, and 103C); two terms of the Jewish history sequence selected from Jewish Studies M191A through M191D; and one course on the Hebrew Bible selected from English 108A, Hebrew 120, or Jewish Studies M150A, 150B.

A third year of Hebrew or one year of Yiddish or another Jewish language is strongly recommended but not required.

Students are encouraged to take a research tutorial within Jewish Studies 199. A maximum of two 199 courses (8 units total) may be applied toward the major.

A course may be applied toward only one category within the major (i.e., core requirement, track requirement, or electives). No more than 20 units applied toward the Jewish Studies major may count toward fulfilling the requirements for a major or minor in another department or program.

For the Jewish history track, students are required to complete the remaining two courses from Jewish Studies M191A through M191D and three courses from the following list, in addition to the core courses for the major: Ancient Near East 162, History 191E, 191F, M191G, 194A, 197A, 199, Jewish Studies 140A, 140B, 170, M191G, M191S, M192A, M192B, 199.

For the Jewish religion track, students are required to complete Jewish Studies 150B and four of the following courses, in addition to the core courses for the major: Ancient Near East 162, English 108A, 108C, 199, Hebrew 120, 125, 130, History 194A, Jewish Studies 130, 135, M150A, M151A, 155, 170, M187, M191A, M191B, 199.

For the Jewish literature and culture track, students are required to complete Hebrew 103A, 103B, 103C, and two of the following courses, in addition to the core courses for the major: English 103, 108A, 108C, 189, German 112, Hebrew 111A, 111B, 111C, 120, 125, 130, 140, Iranian 131, Jewish Studies 135, 143, M150A, 150B, M151A, 151B, 155, 170, 175, M187, 197A through 197Z, 199.

For the American Jewish studies track, students are required to complete Sociology 159 and four of the following courses, in addition to the core courses for the major: English 103, 108A, 108C, 189, German 112, Hebrew 111A, 111B, 111C, 120, 125, 130, 140, Iranian 131, Jewish Studies 135, 143, M150A, 150B, M151A, 151B, 155, 170, 175, M187, 197A through 197Z, 199.

For the Israeli studies track, students are required to complete Hebrew 103A, 103B, 103C, and two of the following courses, in addition to the core courses for the major: Biblical Hebrew 191H, 192B, 197A, Yiddish 101A, 101B, 101C, 102A, 102B, 104.

For the Israeli studies track, students are required to complete Hebrew 103A, 103B, 103C, and two of the following courses, in addition to the core courses for the major: Biblical Hebrew 191H, 192B, 197A, Yiddish 101A, 101B, 101C, 102A, 102B, 104.

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, 1115 Hershey Hall, (310) 825-4889.

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, have completed Arabic 1A, 1B, 1C, or the equivalent as determined by the department, and file a petition in 376 Kinsey Hall, (310) 825-4165.

Required Upper Division Courses (28 units):
Seven courses in Arabic or Islamic; 199 courses may not be applied. With approval of
the undergraduate adviser, two of the seven courses may be taken outside the department. Courses recommended as electives for the major in Arabic (Art History 104A, Geography 187, History 106A, 106B, 106C, 107, 108, Political Science 132A, 132B, 157) may be applied. Other courses may be applied as extra-departmental courses with approval of the adviser.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Armenian Studies Minor

The Armenian Studies minor is designed for students who wish to augment their major program with a group of courses that provide a systematic introduction to the study of Armenian culture.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed Armenian 101A, 101B, 101C, or the equivalent as determined by the department, and file a petition in 376 Kinsey Hall, (310) 825-4165.

Required Upper Division Courses (28 units):

- Seven courses selected in consultation with an academic adviser from any of the courses offered by the department; 199 courses may not be applied. With approval of the undergraduate adviser, two of the seven courses may be taken outside the department.
- All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Near Eastern Languages and Cultures Minor

The Near Eastern Languages and Cultures 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 376 Kinsey Hall, (310) 825-4165.

Required Upper Division Courses (28 units):

- Seven courses selected in consultation with an academic adviser from any of the courses offered by the department; 199 courses may not be applied. With approval of the undergraduate adviser, two of the seven courses may be taken outside the department, provided the content of the courses bears a direct relation to the culture of the Near East.
- All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Near Eastern Languages and Cultures.

Near Eastern Languages and Cultures Minor

The Near Eastern Languages and Cultures 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 376 Kinsey Hall, (310) 825-4165.

Required Upper Division Courses (28 units):

- Seven courses selected in consultation with an academic adviser from any of the courses offered by the department; 199 courses may not be applied. With approval of the undergraduate adviser, two of the seven courses may be taken outside the department.
- All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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, have completed Hebrew 1A, 1B, 1C, or the equivalent as determined by the department, and file a petition in 376 Kinsey Hall, (310) 825-4165.

Required Upper Division Courses (28 units):

- Seven courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With approval of the undergraduate adviser and based on course content, two of the seven courses may be taken outside the department.
- All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Ancient Near East

(Akkadian, Aramaic, Phoenician, and Ugaritic are listed under Semitics.)

Lower Division Course

10W. Jerusalem: The Holy City. (5) (Formerly numbered 10.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 9H. Not open for credit to students with credit for former course 10. Survey of religious, political, and cultural history of Jerusalem over three millennia as a symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to the written word. Study of creation of the mythic Jerusalem through event and experience. Satisfies Letters and Science Writing II requirement. Letter grading.

Upper Division Courses

M104A-M104B, Ancient Egyptian Civilization. (4-4) (Same as History M104A-M104B.) Lecture, three hours; discussion, one hour. Course M104A is not requisite to M104B. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M104A. Chronological discussion of prehistory, the Old and Middle Kingdom. M104B. The New Kingdom and the Late period until 332 B.C.

M105, History of Ancient Mesopotamia and Syria. (4) (Same as History M105.) Lecture, three hours. Designed for juniors/seniors. Political and cultural development of “Fertile Crescent,” including Palestine, from Late Uruk to neo-Babylonian period. Letter grading.

120A-120B-120C. Elementary Ancient Egyptian. (5-5-5) Lecture, three hours; laboratory, two hours. Course 120A is requisite to 120B, which is requisite to 120C. Grammar and texts. P/NP or letter grading.

121A-121B-121C. Intermediate Ancient Egyptian. (5-5-5) Lecture, three hours. Requisite: course 120C. Course 121A is requisite to 121B, which is requisite to 121C. Readings in ancient Egyptian literature. P/NP or letter grading.

123A-123B, Coptic. (5-5) Lecture, three hours. Course 123A is requisite to 123B. Introduction to Coptic grammar and reading of Coptic texts. P/NP or letter grading.

124. Middle Egyptian Technical Literature. (4) Lecture, three hours. Requisite: course 121C. Reading of Middle Egyptian technical literature in hieroglyphic transcription. Medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

130. Ancient Egyptian Religion. (5) Lecture, three hours; discussion, one hour. Introductory survey of various ancient Egyptian religious beliefs and practices, their origin, and development. Discussions of religious-political institutions such as divine kingship and pharaohs. P/NP or letter grading.

140A-140B-140C. Elementary Sumerian. (4-4-4) Lecture, three hours. Requisites: Semitics 140A, 140B. Elementary grammar and reading of royal inscriptions, letters, and administrative texts from the Ur III period. P/NP or letter grading.


162. Archaeology and Religion of Israel. (4) Lecture, three hours. Survey of archaeology of Palestine from Bronze Age to destruction of Jerusalem in A.D. 70, with emphasis on religious development of ancient Israel. P/NP or letter grading.

163. Archaeology of Iran. (4) (Formerly numbered 163A-163B.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. P/NP or letter grading.

164A. Sumerians. (4) Lecture, three hours. Survey of main archaeological periods in Mesopotamia, with special emphasis on historic periods and with reference to neighboring cultural areas. P/NP or letter grading.
261. Practical Field Archaeology. (2 to 8) Fieldwork; two hours. Participation in archaeological excavations or other archaeological research in the 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.


265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology M265.) Lecture, two hours. Theoretical understanding of depositional processes ("taws") which lead to site formation and of stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in the literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with the help of specialists. 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.

110. Parallel Readings in Arabic Sources. (1) Discussion, one hour. Preparation: one year of Arabic or equivalent. Reading of short passages from original Arabic texts related to content course in another department; preparation of readings and final translation assignment. P/NP or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Arabic. (4-4-4) Lecture, three hours. Knowledge of Arabic not required; not suitable for heritage speakers. Introduction to Egyptian colloquial Arabic. P/NP or letter grading.

112B-112C. Advanced Spoken Egyptian Arabic. (4-4) Lecture, three hours. Conducted in Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C, P/NP or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from Qur'an, Tafsir, Hadith, Fiqh. May be repeated for credit. Letter grading.

130. Classical Arabic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from medieval literary texts, with grammatical and syntactical analysis. May be repeated for credit. 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.

150. Classical Arabic Literature in English. (4) Lecture, three hours. Readings in English; knowledge of Arabic not required. Culture of Arabic-speaking peoples through their literature. Texts range from pre-Islamic to early modern, along with works in history and anthropology, to place these writings in social context. P/NP or letter grading.

151. Modern Arabic Literature in English. (4) Lecture, three hours. Readings of selected texts covering basic literary trends from middle of the 19th century to the present. Letter grading.

180. Linguistic Analysis of Arabic. (4) Lecture, four hours. Requisite: course 102C. Linguistic description of Arabic in both modern standard and dialect forms. Introduction to linguistic analysis of Arabic phonology, morphology, and syntax and to linguists' approaches to specific problems posed by Arabic grammatical and dialectology. Letter grading.

199. Special Studies in Arabic. (2 to 8) Tutorial, to be arranged. P/NP or letter grading.

Graduate Courses

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 the Greco-Roman Period. (4-4) Lecture, three hours. Requisite: course 121C. Introduction to grammar and orthography of hieroglyphic texts from Greco-Roman times. Text readings and translation of various textual types. 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. Introduction to Demotic grammar and orthography. Reading of texts from various genres. S/U or letter grading.

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. S/U or letter grading.

240A-240B-240C. Seminars: Sumerian Language and Literature. (4-4-4) Seminar, two hours. Readings of texts from various Sumerian periods and literary genres; selected problems in linguistic and stylistic analysis and literary history. S/U or letter grading.

M250. Seminar: Ancient Mesopotamia. (4) (Same as History M250.) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. May be repeated for credit. S/U or letter grading.

250X. Seminar: Ancient Mesopotamia. (1) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. Course for students who participate regularly in class meetings but without the homework required in course M250. May be repeated for credit. 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.
596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

150A-150B. Survey of Armenian Literature in English. (4-4) Lecture, three hours. Knowledge of Armenian not required. Each course may be taken independently for credit. P/NP or letter grading.

C151. Armenian Literature and Canon Formation. (4) (Formerly numbered 151.) 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 a result of exposure to European thought and expressive forms. Concurrently scheduled with course C251. P/NP or letter grading.

C152. Modern Armenian Drama as Vehicle for Social Critique. (4) (Formerly numbered 152.) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C252. Letter grading.

C153. Art, Politics, and Nationalism in Modern Armenian Literature. (4) (Formerly numbered 153.) Lecture, four hours. Examination of role of literature in modern Armenian society to a cause or cause, as propaganda for various ideologies, as art for art's sake, etc. Exploration of contrasting aesthetics implicit in these differing interpretations. Concurrently scheduled with course C253. P/NP or letter grading.

C155. Issues in Armenian American Literature and Culture. (4) (Formerly numbered 155.) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Armenian. Theoretically informed exploration of some of most salient questions related to Armenian American community as reflect ed in its literature and other cultural artifacts in interaction with its pluralistic American ambi ence. Concurrently scheduled with course C255. Letter grading.


C166. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course C101C or 104C. Overview of development of Armenian cinematography from first talkie to the present, with focus on work of most seminal directors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C256. S/U or letter grading.

199. Special Studies in Armenian Language and Literature. (2 to 8) Tutorial, to be arranged. 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 the classical literary language (5th to mid-19th century) and guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4-4-4) Lecture, three hours. Requisite: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to the Philhellenic School of the 6th to 8th century and related works up to the 19th century. Each course may be taken independently for credit. Letter grading.

C251. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in course of last two centuries as a result of exposure to European thought and expressive forms. Concurrently scheduled with course C151. S/U or letter grading.

C252. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C152. Letter grading.

C253. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examination of role of literature in modern Armenian society to a cause or cause, 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. S/U or letter grading.


C266. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 101C or 104C. Overview of development of Armenian cinematography from first talkie to the 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.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Related Courses

History

Berber

Upper Division Courses

101A-101B-101C. Elementary Berber. (4-4-4) Lecture, three hours; laboratory, two hours. Development of oral proficiency and analysis of basic grammatical structure. P/NP or letter grading.


130. The Berbers. (4) Lecture, four hours. Examination of main features of Berber societies and cultures, with particular attention to social structures and institutions on one hand, and to customs, values, and beliefs on the other. Presentation of broad framework within which study of particular aspects of Berber cultures may be pursued. P/NP or letter grading.

199. Special Studies in Berber Languages. (2 to 8) Tutorial, to be arranged. Studies based on requirements of individual students. P/NP or letter grading.

Hebrew

Lower Division Courses

1A-1B-1C. Elementary Hebrew. (5-5-5) Lecture, five hours; laboratory, one hour. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Structural principles of grammar. Students who have prior knowledge of reading and some vocabulary are advised to take courses 10A, 10B, 10C. Students with credit for course 10A cannot receive credit for 1B and/or 1C. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Hebrew. (5-5-5) Lecture, five hours. Requisite: course 1C. Course 102A is requisite to 102B, which is requisite to 102C. Amplification of grammar; reading of texts from modern literature. P/NP or letter grading.


111A-111B-111C. Conversational Hebrew. (3-3-3) (Formerly numbered 101.) Lecture, two hours; laboratory, one hour. Course 111A is requisite to 111B, which is requisite to 111C. Vocabulary used in daily life, different speech acts in both formal and informal contexts, and various Israeli sociocultural issues using different kinds of media, such as video, Internet, and newspapers. P/NP or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with the commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for a maximum of 16 units.

130. Rabbinic Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and/or Midrash. May be repeated for credit.

135. Medieval Hebrew Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in medieval Hebrew prose and poetry. May be repeated for a maximum of 16 units.

C140. Modern Hebrew Poetry and Prose. (4) Formerly numbered 140.) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

160. Hebrew Essay. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Hebrew essay from its rise in Europe in the late 18th century to contemporary Israeli essay. Study of literary, political, philosophical, and scholarly essay. May be repeated for credit.


190A-190B. Survey of Hebrew Grammar. (4-4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Descriptive and comparative study of Hebrew grammar; phonology and morphology. Topics include development of Hebrew language from biblical times to the present day, its relation to Arabic and other Semitic languages, methods of language expansion in Israel Hebrew, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic).

199. Special Studies in Hebrew. (2 to 8) Tutorial, to be arranged.

Graduate Courses


230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.


596. Directed Independent Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit.


Iranian

Lower Division Courses

1A-1B-1C. Elementary Persian. (5-5-5) Lecture, six hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to students with prior knowledge of Persian. P/NP or letter grading.

10A-10B-10C. Persian Conversation. (2-2-2) Lecture, three hours. Systematic and structured Persian conversation.

20A-20B-20C. Accelerated Elementary Persian. (6-6) Lecture, four hours; discussion two hours; laboratory, 30 minutes per day. Preparation: some knowledge of spoken Persian. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. Intensive and thorough study of fundamental structure of Persian grammar; reading from a wide range of classical and modern poetry and prose compositions. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Persian. (5-5-5) Lecture, six hours. Requisite: course 1C or 20C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

103A-103B-103C. Advanced Persian. (4-4-4) Lecture, three hours. Requisite: course 102C. Students who successfully complete courses 20A, 20B, 20C with grades of A may be permitted to enroll. Each course may be taken independently for credit. 103A. Introduction to Classical Persian Poetry; 103B. Introduction to Contemporary Persian Poetry and Prose.

401. 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 study in detail. P/NP or letter grading.

111A-111B-111C. Elementary Kurdish. (4-4-4) Lecture, three hours; laboratory, two hours. Proficiency-based course in basic grammar of literary Kurdis (Soran). Graded readings, translation, composition (level one), conversation (levels one and two).

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 the 10th to 14th century who shaped the sense of Persian identity and delineated chief distinguishing characteristics of Persian thought and culture. P/NP or letter grading.

130. Intellectual History of Jews of Persia. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Jews in Persia by highlighting select areas of Judeo-Persian studies and focusing on various authors and their work. P/NP or letter grading.

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.

140. Persian Belles Lettres (Adabiyyat). (4) Lecture, three hours. Requisite: course 103A. Study of major Persian poets and prose writers: prose — Sohravardi, Hamadâni, Nasafi, Irâqi, and others; poetry — Hâfez, Sa’dî, Rûmi, Bahâr, Dekhodha, and others. May be repeated for credit with consent of instructor. P/NP or letter grading.

141. Persian Analytical Prose. (4) Lecture, three hours. Requisite: course 102C. Study of selected analytical and expository prose texts, with emphasis on philosophy, sciences, literary criticism, and history. May be repeated for credit with consent of instructor. P/NP or letter grading.
Ethnomusicality
91L. Music of Persia

History
90D. Introduction to Asian Civilizations: History of the Near and Middle East
106A-106B. Survey of the Middle East from 500 to the Present

Indic (East Asian Languages)
110A. Elementary Sanskrit
110B. Intermediate Sanskrit
110C. Advanced Sanskrit

Indo-European Studies
210. Indo-European Linguistics: Advanced Course II
280A-280B. Seminars: Indo-European Linguistics

Islamics

Upper Division Courses
110. Introduction to Islam. (5) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from the Qur'an and hadith; schools of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading.

130. Shi‘a in Islamic History. (4) Lecture, three hours. Rise and development of Shi‘a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform. P/NP or letter grading.

151. Contemporary Islamic Thought. (4) Lecture, 90 minutes; discussion, 90 minutes. Recommended requisite: course 110. Based on original writings of major Islamic thinkers in English translation, provides balanced pictures of contemporary Islamic thought and practice, with readings from all branches of Islam. P/NP or letter grading.

Graduate Courses

221. Rumi, Mystic Poet of Islam. (4) Seminar, three hours. Requires: 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 Indic M222A-M222B.) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to Indic 110C. Characteristic of Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit.

230A-230B. Old Iranian. (4-4) Studies in grammars and texts of such Middle Iranian languages as best serve students' needs (e.g., Pahlavi, Sogdian, Sakiani). Only course 231B may be repeated for credit.

231A-231B. Middle Iranian. (4-4) Studies in grammars and texts of such Middle Iranian languages as best serve students' needs (e.g., Pahlavi, Sogdian, Sakiani). Only course 231B may be repeated for credit.

250. Seminar: Classical Persian Literature. (4) Seminar, three hours. Requires: courses 103A, 103B, 103C, 199. May be repeated twice for credit.


256. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit.

257. Examination Preparation. (2 to 8) Tutorial, to be arranged. S/U grading.


Related Course
History
107. Premodern Islam

Jewish Studies

Lower Division Course
10. Social, Cultural, and Religious Institutions of Judaism. (5) Lecture, three hours; discussion, one hour. Judaism's basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer, and the messiah; history of Talmud and synagogue; evolution of folk beliefs and year-cycle and life-cycle practices. P/NP or letter grading.

M111E. Ethnic Groups and Their Bibliographies: Jewish History and Culture. (4) (Same as Information Studies M111E.) Lecture, three hours. Designed for juniors/seniors. Exploration of dynamic and millennia-old interaction of Jewish with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. P/NP or letter grading.
175. Modern Hebrew Novel as a Film. (4) Reading of literary works written by modern Hebrew writers which have been translated into English and made into movies. Lectures, readings, and discussion of novels and movies and guest speakers from movie industry and UCLA.

M187. The Holocaust in Literature. (4) Same as Comparative Literature M165. (4) Lecture, three hours. Requisite: History 191E or 191F or M191G. Investigation of how the Holocaust informs a variety of literary and cinema works and raises a wide range of aesthetic and moral questions. P/NP or letter grading.

190. Undergraduate Seminar: Jewish Studies. (4) Examination of a single topic in depth with object of encouraging and guiding students’ research in area of Jewish studies. Literary, cultural, and historical subjects included.


M191B. Between Crecent and Cross: Jewish Middle Ages. (4) Same as History M191B. Lecture. 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.


M191S. History of State of Israel from 1948 to the Present. (4) Same as History M191S. Lecture. Designed for juniors/seniors. Examination of history of State of Israel from 1948 to the present. P/NP or letter grading.

M192A-M192B. Jewish Intellectual History. (4) (Same as History M192A-M192B.) Lecture. Designed for juniors/seniors. Examination of three intellectual worlds that competed for hegemony in the medieval Jewish world — rabbinic Judaism, medieval rationalism as embodied in philosophy, and cabala; medieval period. Examination of some of most important currents and figures in Jewish intellectual history from the 18th century to the present. 197A-197Z. Variable Topics in Jewish Studies. (4 each) Lecture or seminar, three hours. Variable topics; consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading. 197A. 20th-Century Jewish Thought. May not be repeated for credit. 197B. Jewish Feminist Theology. 199. Special Studies in Jewish Studies. (2 to 8) Tutorial, to be arranged. Limited to Jewish Studies majors.

121A. 20th-Century Yiddish Poetry in English Translation
121B. 20th-Century Yiddish Prose and Drama in English Translation
121C. Special Topics in Yiddish Literature in English Translation
131A. Modern Yiddish Poetry
131B. Modern Yiddish Prose and Drama
131C. Special Topics in Yiddish Literature
199. Special Studies in Yiddish

Near Eastern Languages

Lower Division Courses

50A. First Civilizations. (5) Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East — Egypt, Israel, and Mesopotamia — with attention to emergence of writing, monotheism, and urban societies. Letter grading.


50C. Modern Middle Eastern Cultures. (5) Lecture, three hours; discussion, one hour. Survey of modern Middle Eastern cultures through readings and films from Arab countries, Iran, Turkey, and Israel. Letter grading.

Graduate Courses

200. Bibliography and Method of Near Eastern Languages and Literatures. (4) Lecture, two hours. Requisite for M.A. degree. Introduction to bibliographical resources and training in methods of research in various areas of specialization offered by department. May be repeated for credit.

210. Survey of Afro-Asiatic Languages. (4) Lecture, three hours. Survey of structures of a number of representative languages from various major branches of Hamito-Semitic (Afro-Asiatic) language family.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Provides students with ability to cope with varieties of manuscripts.

250A. First Civilizations. (5) Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East — Egypt, Israel, and Mesopotamia — with attention to emergence of writing, monotheism, and urban societies. Letter grading.


250C. Modern Middle Eastern Cultures. (5) Lecture, three hours; discussion, one hour. Survey of modern Middle Eastern cultures through readings and films from Arab countries, Iran, Turkey, and Israel. Letter grading.

260. Bibliography and Method of Near Eastern Languages and Literatures. (4) Seminar, two hours. May be repeated for credit.

270. Seminar: Hebrew Language and Literature. (4) Seminar, two hours. May be repeated for credit.


400. Seminar: Hebrew Language and Literature. (4) Seminar, two hours. May be repeated for credit.

410. 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.

420. Seminar: Akkadian Language. (4) 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.

424. Seminar: Akkadian Literature. (4) 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 240. May be repeated for credit.

421X. 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 240. May be repeated for credit.

425. Seminar: Akkadian Language. (4) Seminar, two hours. May be repeated for credit.

440A-440B-440C. Seminars: Comparative Semitics. (4-4-4) Seminar, two hours. Requisites: Hebrew 102A, 102B, 102C. Study of Semitic languages and inscriptions. May be repeated for credit.


470. Seminar: Hebrew Language and Literature. (4) Seminar, two hours. May be repeated for credit.

480. Seminar: Hebrew Language and Literature. (4) Seminar, two hours. May be repeated for credit.

Semiotics

Upper Division Courses


140A-140B. Elementary Akkadian. (4-4) Lecture, three hours. Elementary grammar and reading of texts in standard Babylonian.

141. Advanced Akkadian. (4) Lecture, three hours. Old Babylonian syntax; reading of basic Old Babylonian texts.

142. Akkadian Literary Texts. (4) Lecture, three hours. Selected readings from Akkadian myths and epics, with introduction to historical tradition of the works and their literary structure.

199. Special Studies in Semitics. (2 to 8) Tutorial, to be arranged.

Turkic Languages

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.
220A-220B-220C. Classical Uzbek (Chagatai). (4-4-4) Lecture, three hours. Requisites: courses 201A, 201B, and 201C. Development of Turkic and Uyghur literatures. Historical and social contexts of Turkic literatures, from their early history to the present.


230A-230B-230C. Historical and Comparative Survey of Turkic Languages. (4-4-4) Lecture, three hours. Requisite: course 180. Historical survey of Turkic languages from pre-Islamic period to the present. Comparative study of Turkic languages and cultures.

240A-240B-240C. Advanced Ottoman. (4-4-4) Lecture, three hours. Requisites: courses 210A, 210B, and 210C. Emphasis on different genres of Ottoman writing (e.g., letters, letters, and various types of state documents) in elaborate high style of classical Ottoman period (15th to 19th century). Selections are read in manuscript to prepare students to read works in form in which they are likely to encounter them in their research.

250A-250B-250C. Islamic Texts in Chaghatay. (4-4-4) Lecture, three hours. Requisites: courses 220A, 220B, 220C. Philological and linguistic survey of Islamic literature written in Chaghatay language. Reading and discussion of Chaghatay texts on Islamic topics.

280A-280B. Seminars: Modern Turkish Literature. (4-4) Seminar, two hours. Requisite: course 102B. Specific issues and trends in development of Turkish literature during the 20th century. The seminar is designed to introduce students to the major literary movements in Turkey.

290A-290B. Seminars: Classical Turkish Literature — Ottoman, Chagatay, and Azeri. (4-4) Seminar, two hours. Requisites: courses 210A, 210B, and 210C, and/or 220A, 220B, and 220C. Survey of Islamic literatures of the Turks in classical period. Readings of Ottoman, Chagatay, and Azeri texts from various literary genres. Discussion of stylistic, prosodic, and linguistic characteristics.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit.


Related Course

Art History
104B. Eastern Islamic Art

NEUROBIOLOGY
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Professors
George W. Bernard, D.D.S., Ph.D.
Dean Box, Ph.D. (Dolly Green Professor of Ophthalmology)
Nicholas C. Brecha, Ph.D., in Residence
John H. Campbell, Ph.D.
Marie-Françoise Chesselet, M.D., Ph.D. (Charles H. Markham Professor of Neurology)
Caroline D. Clemente, Ph.D.
Edwin L. Cooper, Ph.D.
Jean S. de Vellis, Ph.D., in Residence
V. Reggie Edgerton, Ph.D.
Jerome Engel, Jr., M.D., Ph.D. (Jonathan Sinay Professor of Epilepsy)
Jack L. Feldman, Ph.D. (Edith Agnes Plumb Endowed Professor of Neurobiology)
Robin S. Fisher, Ph.D., in Residence
Robert G. Frank, Jr., Ph.D. (Medical History Division)
David Glanzman, Ph.D.
Roger A. Gorski, Ph.D.
Ronald M. Harper, Ph.D.
Carolyn H. Houser, Ph.D., in Residence
John K. H. Li, Ph.D.
Paul E. Micewych, Ph.D.
Stefan M. Pulsit, M.D.
Arnold B. Scheibel, M.D.
John D. Schlag, M.D.
Alcino J. Silva, Ph.D.
Michael Sofroniew, M.D., Ph.D.
Cati Sternini, M.D., in Residence
Anna N. Taylor, Ph.D., in Residence
Jaime R. Villablanca, M.D., in Residence
Charles D. Woody, M.D., in Residence
Guido A. Zampighi, D.D.S., Ph.D.

Professors Emeriti
Nathaniel A. Buchwald, Ph.D.
Emilio E. Decima, M.D.
Ellen R. Dirksen, Ph.D.
Earl Eldred, M.D.
Lawrence Kruger, Ph.D.
Ynez V. O’Neill, Ph.D.
Daniel C. Pease, Ph.D.
Charles H. Sawyer, Ph.D.
José P. Segundo, M.D.
M.B. Sterman, Ph.D.
Bernard Towers, M.D.
Richard W. Young, Ph.D.
Emery G. Zimmermann, M.D., Ph.D.

Assistant Professors
Dean V. Buonomo, Ph.D.
Sheila Nirenberg, Ph.D.
Nathaniel A. Buchwald, Ph.D.

Adjunct Professor
Margaret N. Shouze, Ph.D.

Adjunct and Clinical Associate Professors
Earle E. Crandall, M.D., Ph.D., F.A.C.S., Clinical
Carlos A.E. Lemmi, Ph.D., Adjunct
Anselmo R. Pineda, M.D., Ph.D.

Scope and Objectives
The Department of Neurobiology offers advanced training leading to the Ph.D. degree. Graduates can anticipate an academic career at the college or university level or as a basic science researcher at a research institute or biotechnology company. In accord with this the department strives to produce graduates who are well-trained and highly qualified both for teaching at the college or university level or as basic scientists in industry.

The overall objective of the Ph.D. program is to provide a strong theoretical and practical foundation in the area of cellular and systems neuro-

Graduate Courses
210A-210B-210C. Introduction to Ottoman. (4-4-4) Lecture, three hours. Introduction to the study of Ottoman Empire from its foundation in the 14th century to its overthrow in the 20th century. For students of history, literature, and religion of the Balkans, Near East, and Central Asia. Topics include Arabic script and grammar. Specific issues and trends in development of Turkish literature. Readings of historical and literary texts.


111A-111B-111C. Elementary Turkish. (4-4-4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

115A-115B-115C. Elementary Azeri. (4-4-4) Knowledge of Azeri, from their early history to the present. Contributes to the study of other languages.

120A-120B-120C. Descriptive Grammar of Modern Turkish. (4-4-4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 120A, 120B, and 120C, or 111A, 111B, and 111C, or 180. Systematic and comprehensive grammatical survey of modern Turkish, from the 13th to the present. Contributes to the study of other languages.

160. Turkish Tradition. (4) Lecture/discussion. Preparation: placement test. Proficiency-based course in descriptive Azeri grammar and reading, with help of dictionary; ability to write simple compositions; basic conversational skill.

165. Islamic Literary Heritage of Central Asia. (4) Lecture, two hours; discussion, one hour. Systematic and comprehensive survey of Islamic literature, from the 13th to the present. Contributes to the study of other languages.


175A-175B-175C. Middle Turkic: Karakhanid, Khorazmian, Mamluk-Kipchak, and Old Anatolian. (4-4) Lecture, three hours. Requisites: courses 215A, 215B, and 215C. Development of Turkic and Uyghur literatures, from their early history to the present. High-style composition and conversation.

180A-180B-180C. Contemporary Turkish. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 180A, 180B, and 180C, or 111A, 111B, and 111C, or 180. Systematic and comprehensive grammatical survey of modern Turkish, from the 13th to the present. Contributes to the study of other languages.

190. Modern Turkish Languages and Peoples. (4) Lecture, three hours. Requisites of students in Turcic program and recommended for students in Soviet studies. Ethnic and linguistic survey of the Turkic peoples.

199. Special Studies in Turkic Languages. (2 to 8) Tutorial, to be arranged.
Graduate Courses

240A-240B. History of Medical Sciences. (2-2) Lecture, one hour. Survey of development of scientific and medical thought from ancient times to the present. S/U or letter grading.

250. History of Medical Psychology. (2) Lecture, one hour. Examination of themes underlying modern mental health theories. Beginning with review of contemporary thinking, lectures focus on various factors shaping present concepts of mental disorders and provide a framework for understanding current issues. S/U or letter grading.

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subjects in medical history selected by students with advice and direction of instructor. Individual reports and conferences. S/U or letter grading.

Neurobiology

Lower Division Courses

88. Lower Division Seminar: Special Topics in Neurobiology. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in neurobiology approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

98B. Mind, Brain, and Culture. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement. Overview of structure, function, and role of the human brain: its development through time, people's struggle to understand their brain, techniques they use and some facts they have generated in this pursuit, its role as the central element in human culture, and its probable continuing change as a result of that evolving culture. Lecture, laboratory, and discussion of the brain and its role in human achievement. Letter grading.

Upper Division Courses

104. Histology and Cell Biology. (6) Lecture, four hours; laboratory, six hours. Required for dental students. Lecture, demonstrations, and laboratories dealing with structure of cells, tissues, and organs at microscopic level. Nervous system included. P/NP or letter grading.


118. Ideas and Experiments in History of Physiology. (4) Same as Physiological Science 1168. Lecture, three hours. Interaction of concepts and experimental techniques in physiology from the early 19th to latter 20th centuries, including heart and circulation, hormones, nutrition and vitamins, the brain, spinal cord, and peripheral nervous system, as well as development of physiology as scientific discipline. Discussion of weekly readings and presentations by students. Letter grading.

M169. History of Neurosciences. (4) Formerly numbered M246.) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in anatomy and related subject areas appropriate for training of particular students, which may include reading assignments or laboratory work leading to a final oral or written report. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) Same as Neuroscience M244.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning cellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200B. Molecular, Cellular, and Developmental Neurobiology. (6) (Formerly numbered M209A.) (Same as Molecular, Cell, and Developmental Biology CM220, Neuroscience M201, and Physiology M209A.) Lecture, two hours; discussion, two hours; laboratory, two hours. Fundamental topics concerning molecular, cellular, and developmental neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotropic factors. Letter grading.

200C. Sensory Systems Neurobiology. (3) Lecture, one hour; discussion, one hour; laboratory, one hour. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

200D. Motor Systems Neurobiology. (3) Lecture, one hour; discussion, one hour; laboratory, one hour. Fundamental topics in motor systems neurobiology, including muscle, motor units, and motoneuron pools, spinal motor control, reflexes, locomotion, basal ganglia, cerebellum, and eye movements. Letter grading.

200E. Regulatory, Behavioral, and Cognitive Neurobiology. (6) Lecture, two hours; discussion, two hours; laboratory, two hours. Topics include hypothalamic and metabolic, water intake and body fluids, neuromodulatory systems, circadian timing, sleep and dreaming, psychosocial development, motivation, reward and addiction, cognitive development, object, face, and spatial recognition, learning and memory, language and communication, and thinking and problem solving. Letter grading.

M200F. Cellular Neurophysiology. (4) Same as Neuroscience M202, and Physiological Science M202.) Lecture, three hours; discussion, two hours. Requisites: Molecular, Cell, and Developmental Biology 171 or Organismic Biology M166, Physiological Science 111A or M180A or Physics 6B. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200G. Biology of Learning and Memory. (4) (Same as Neuroscience M220.) 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.

M203A-M203B. Neuroscience. (4-4) (Same as Physiology M203A-M203B.) Lecture/laboratory, two to three hours; course carried by medical and qualified graduate program students. Lectures, conferences, demonstrations, and laboratory procedures necessary to understand functions of nervous system, with emphasis on their applications in the medical sciences. To receive credit, both courses must be taken together in the same academic year. In Progress and letter grading.


M229. Oral Embryology and Histology. (4) (Same as Oral Biology M229.) Lecture, four hours. Lectures and laboratory instruction in development and histological structure of facial region and oral and peri-oral organs and tissues. Letter grading.

M234 Seminar: Developmental Neuroendocrinology. (2) (Same as Oral Biology M234.) Seminar, two hours. Designed for graduate students. Psychological and physiological processes interact, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from a developmental perspective. S/U or letter grading.

251 Problems in Developmental and Comparative Immunology. (2) Lecture/discussion, two hours. Review of current literature emphasizing early development and evolution of immune competence. S/U or letter grading.


254. Structure and Function of Cells and Tissues. (2) (Lecture, two hours; discussion, one hour. Requisite or corequisite: course 104. Current topics on structural and functional aspects of microscopic anatomy; term paper required. May be repeated for credit. S/U grading.


258. Seminar: Neuroscience. (2) Seminar, two hours. Preparation: M203A-M203B. Topics of current interest or ongoing research projects; examination of both content and method of presentation. May be repeated for credit. S/U or letter grading.


290. Tutorials in Anatomy. (2) Tutorial, one hour. Individual study with a faculty member leading to submission of a scientific document (usually a review article) on a topic of mutual interest to instructor and student. S/U grading.

295. Culture of Neurobiology. (2) Discussion, one hour. Outside readings, classroom discussions, short write-ups, and student presentations on current issues in neurobiology. Topics include networking, mentoring, publishing, grant system, authorship, and career opportunities. S/U grading.

296. Research Seminar and Journal Club. (1) Seminar, one hour. Seminar and journal club with focus on current research topics and activities occurring within department. S/U grading.

298A-298BC. Advanced Topics in Neurobiology. (2-2-2) Seminar, one hour; discussion, one hour. Advanced seminar courses in neurobiology to be offered by different departmental faculty members. Topics are grouped thematically. S/U grading. 298A. Molecular, Cellular, and Developmental Neurobiology; 298B. Sensory and Motor Systems Neurobiology; 298C. Regulatory, Behavioral, and Cognitive Neurobiology.

390A-390B. Peer Review System. (2-2) Discussion, two hours. Preparation: advancement to candidacy in integrative or systems biology. Introduction to peer review system for evaluation of research proposals. After consideration of grant review process, each student prepares abbreviated grant application which is evaluated in a mock peer review session moderated by the faculty. In Progress and S/U grading.


270A-270B-270C. Cell, Molecular, and Integrative Biology Seminars. (1-1-1) Formerly numbered M270A-M270B-M270C.) Seminar, one hour. Formal lectures on current research topics in neuroscience by speakers from national, international, and local neuroscience communities. S/U 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 Reel 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.

For further details on the Department of Neurology and a listing of the courses offered, see http://www.neurology.ucla.edu.

Neurology
Upper Division Course
199. Special Studies. (2 to 8) Discussion, one to two hours; laboratory, four to six hours. Individual projects carried out under direction of a faculty member. Special studies in neurology, with appropriate objectives, readings, laboratory work, or other assignments designed for proper training of students.

NEUROLOGY
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Christopher M. DeGiorgio, M.D., Vice Chair
Mark A. Goldberg, M.D., Ph.D., Vice Chair, Harbor-UCLA
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Thomas Otis, Ph.D.
Patricia E. Phelps, Ph.D.

Affiliated Faculty

Professors
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Utpal Banerjee, Ph.D. (Biological Chemistry, Human Genetics, Molecular, Cell, and Developmental Biology)
Jackson Beardy, Ph.D. (Psychology)
Nicholas C. Brecha, Ph.D., in Residence (Medicine, Neurobiology)
Larry L. Butcher, Ph.D. (Psychology)
Tyrone D. Cannon, Ph.D. (Psychology)
Joseph Caprioli, M.D. (Ophthalmology)
Scott H. Chandler, Ph.D. (Physiological Science)
Michael H. Chase, Ph.D. (Physiology)
Marie-Françoise Chesselet, M.D., Ph.D. (Neurobiology, Neurology)
Robert C. Collins, M.D. (Neurology)
Edwin L. Cooper, Ph.D. (Neurobiology)
Jeffrey L. Cummings, M.D. (Neurology)
Jean S. de Vellis, Ph.D., in Residence (Neurobiology, Psychiatry and Biobehavioral Sciences)
Joseph J. DiStefano III, Ph.D. (Computer Science, Medicine)
Bruce H. Dobkin, M.D. (Neurology)
V. Reggie Edgerton Ph.D., in Residence (Neurobiology, Physiological Science)
Rita B. Effros, Ph.D. (Pathology and Laboratory Medicine)
Christopher J. Evans, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
Gordon L. Fain, Ph.D. (Ophthalmology, Physiological Science)
Michael S. Fanselow, Ph.D. (Psychology)
Debora B. Farber, Ph.D., in Residence (Ophthalmology)
Kym F. Faull, Ph.D. (Psychiatry and Biobehavioral Sciences)
Jack L. Feldman, Ph.D. (Neurobiology)
Joaquin M. Fuster, M.D., Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
David L. Glanzman, Ph.D. (Neurobiology, Physiological Science)
Roger A. Gorski, Ph.D. (Neurobiology)
Carlos V. Grijalva, Ph.D. (Psychology)
Alan D. Grinnell, Ph.D. (Physiological Science, Physiology)
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Volkert Hartenstein, Ph.D. (Molecular, Cell, and Developmental Biology)
Keith Holyoak, Ph.D. (Psychology)
Vincente Honrubia, M.D. (Surgery)
David A. Hovda, Ph.D. (Molecular and Medical Pharmacology, Surgery)
Franklin B. Krasne, Ph.D. (Psychology)
Michael S. Levine, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
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Paul E. Micewych, Ph.D. (Neurobiology)
Istvan Mody, Ph.D. (Neurology, Physiology)
Peter M. Narins, Ph.D. (Physiological Science)
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Diane M. Papazian, Ph.D. (Physiology)
Gregory S. Payne, Ph.D. (Biological Chemistry)
Arnold B. Scheibel, M.D. (Neurobiology)
John D. Schlag, M.D. (Neurobiology)
Oscar U. Scremin, M.D., Ph.D., in Residence (Physiology)
Gary W. Small, M.D., in Residence (Psychiatry and Biobehavioral Sciences)
Judith L. Smith, Ph.D. (Physiological Science)
Allan J. Tobin, Ph.D. (Neurology, Physiological Science)
Arthur W. Toga, Ph.D. (Neurology)
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Geraldine A. Weinmaster, Ph.D. (Biological Chemistry)
Eran Zaidel, Ph.D. (Psychology)
Lonnie K. Zeltzer, M.D. (Pediatrics, Anesthesiology)
S. Larry Zipsirski, Ph.D. (Biological Chemistry)

Professor Emeritus
Gaylord D. Ellison, Ph.D. (Psychology)

Associate Professors
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James R. Boulter, Ph.D. (Psychiatry and Biobehavioral Sciences)
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Francesco Chappelli, Ph.D. (Dentistry)
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William M. Melega, Ph.D. (Molecular and Medical Pharmacology)
Karen A. Miotto, M.D. (Psychiatry and Biobehavioral Sciences)
Thomas O. O'Dell, Ph.D. (Psychology)
Paul H. O'Lague, M.D., Ph.D. (Cell and Developmental Biology)
Patricia E. Phelps, Ph.D. (Physiological Science)
Helen Raybould, Ph.D., in Residence (Medicine)
Nigel T. Riedel, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
William P. Melega, Ph.D. (Molecular and Medical Pharmacology)

Assistant Professors
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Ana Maria Correa, Ph.D., in Residence (Anesthesiology)
Daniel H. Geschwind, M.D., Ph.D. (Neurology)
Marco Iacoboni, M.D., Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
Linda M. Liu, M.D., Ph.D. (Surgery)
Xin Liu, M.D., Ph.D. (Molecular and Medical Pharmacology, Pathology and Laboratory Medicine)
Kelsey C. Martin, M.D., Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)
Gary W. Mathern, M.D., in Residence (Psychiatry and Biobehavioral Sciences)
John D. McCann, M.D., Ph.D. (Ophthalmology)
Michael S. Mega, M.D., Ph.D., in Residence (Neurology)
Sheila Nirenberg, Ph.D. (Neurobiology)
Thomas Otis, Ph.D. (Neurobiology)

Adjunct Professors
Charles L. Wilson, Ph.D. (Neurology)
Dahila Zaidel, Ph.D. (Psychology)

Adjunct Associate Professors
Larry F. Hoffman, Ph.D., M.S. (Surgery)

Jen Yu Wei, Ph.D. (Residence Medicine/Digestive Diseases)

Scope and Objectives

Neuroscience seeks to understand the brain in health and in disease. Topics of fundamental interest include perception, cognition, learning, memory, motor control, and regulation of body function. The undergraduate interdepartmental program seeks to explore the principles and concepts of this broad range of nervous system function at many levels of analysis, including molecular, cellular, synaptic, network, computational, and behavioral.

Undergraduate Study

Neuroscience B.S.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4A, 4BL, or 6A, 6B, and 6C; one course from Statistics 10 or 13 or, by petition, Biostatistics 100A or 110A.

All core curriculum courses must be passed with a grade of C– or better and must be completed with an overall grade-point average of 2.0 or better. Students are encouraged to fulfill the preparation requirements prior to enrollment in courses for the major. Transfer students are counseled on an individual basis.

In fulfilling the College general education requirements, students are encouraged to select courses that complement the major; Psychology 10 is recommended.

Transfer Students

To be admitted as Neuroscience majors, transfer students 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, 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.

The Major

The following 12 courses are required for the Neuroscience major. Consult respective departmental or program listings for course descriptions:
Science

All upper division courses taken for the major. A grade of C– or better is required to proceed past any course in chemistry, life sciences, and physics (M101A–M101C). Neuroscience: From Molecular, Cell, and Developmental Biology C139, Neurosciences M130, M145, M148, 151, 197C, Physiological Science 126, 147, 192


Group 2: Three elective courses (one from each area) as follows:


Area 2B: One systems and integrative neuroscience course from Neuroscience M191N, M130, M145, 197B, Organismic Biology, Ecology, and Evolution M173, Physiological Science C125, 126, 128, C144, 147, Psychology M119L, 119A, 119B, 119D, 119P, 120B

Area 2C: One molecular, cell, and developmental neuroscience course from Molecular, Cell, and Developmental Biology C139, Neurosciences M130, M145, M148, 151, 197C, Physiological Science 126, 147, 192

Group 3: Three research-related courses from the following: Neuroscience 101L (one term) or 199 (two terms) or 199HA and 199HB (one term in each course) or Psychology M181A and M181B (with approval of the neuroscience curriculum committee before start of project; one term in each course). All majors who elect to do two terms (one term applies toward Group 3 and one toward Group 4) of Neuroscience 199 or 199HA and 199HB or Psychology M181A and M181B must do one term of Honors Collegium 99 in the same laboratory. In addition, they must submit a poster to the neuroscience undergraduate poster session or the curriculum committee prior to graduation

Group 4: Two additional elective courses from the Group 2 or 3 list or from Neurobiology/ Medical History M169 or Physiological Science C135. Students who select two terms of Neuroscience 199 or 199HA and 199HB or Psychology M181A and M181B must select only one additional elective to satisfy Group 4

Psychology 115 cannot be substituted for Neuroscience M101A; however, Physiological Science 111A can be substituted.

No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 199 or 199H (in any combination) may be applied toward the major. All required and elective courses must be taken for a letter grade, and a C average must be maintained in all upper division courses taken for the major.

Honors Program

The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in an honors thesis. Requirements for admission include completion of at least 40 units toward the preparation for the major with a 3.2 grade-point average and an overall GPA of 3.2 at UCLA. Applications and program requirements are available in the Neuroscience Undergraduate Office, 1506D Gonda Center. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program. 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 required courses for Neuroscience M101A.

Non-science majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are requisites to the upper division course requirements.

Required Upper Division Courses (approximately 31 units): Neuroscience M101A, M101B, M101C (5 units each) and four elective courses selected from 102 and from Groups 2, 3, and 4 as listed under the Neuroscience major.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. A maximum two-course overlap is allowed between students’ majors and this minor. Successful completion of the minor is indicated on the transcript and diploma.

Neuroscience

See the Neuroscience Interdepartmental Graduate Program for the graduate course offerings.

Upper Division Courses

M101A-M101B-M101C. Neuroscience: From Molecules to Mind. (5-5-5) (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. Requirements: Chemistry 14C or 30A or former course 30 (14C may be taken concurrently), Life Sciences 2, Physics 1B or 6C. Not open for credit to students with credit for Physiological Science 111A. For Physiological Science majors only, a grade of C– or better is required to proceed to Physiological Science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M101B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requires: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115, Life Sciences 3, 4. Molecular biology of cellular components and receptors: focus on voltage-dependent ion channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology. P/NP or letter grading.

M101C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requires: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

101L. Neuroscience Laboratory. (4) Lecture, two hours; laboratory, three hours. Requires: courses M101A, M101B (M101B may be taken concurrently). Not open for credit to students with credit for Psychology 116. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular and cell biological to behavioral. Hands-on experience with important methodology and experimental approaches in neuroscience.


M119L. Human Neuropsychology. (4) (Same as Psychology M119L.) Lecture, three hours. Requires: courses M101A and M101C (or Psychology 115), Psychology 120A or 120B. Designed for juniors/seniors. Survey of experimental and clinical human neuropsychology; neural basis of higher cognitive functions. P/NP or letter grading.

M119N. The Visual System. (4) (Same as Psychology M119N.) Lecture, three hours. Requires: course M101A or Molecular, Cell, and Developmental Biology 171 or Physiological Science 111A or Psychology 115. The ability to image and analyze the visual world is a truly remarkable feat. Coverage of anatomy and physiology of visual processing from the retina to visual cortex through lectures, extensive reading, and discussions.

M130. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M191, Physiological Science M181, Psychiatry M191, and Psychology M117J.) Lecture, three hours. Requires: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115. Underlying brain systems involved in psychiatric syndromes of inborn 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.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Biological Sciences M145.) Lecture, four hours. Requires: 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.

M148. Molecular and Cellular Physiology of Neurons. (4) (Same as Psychological Science M148.) Lecture, three hours. Requires: course M101A or Physiological Science 111A or M180A. Introduction to central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.
The major. Letter grading. Courses 199, 199HA, 199HB may be applied toward the major. Honors Thesis in Neuroscience. (4) Given only on completion of course 199HB). In Progress grading (credit to be applied toward the major. In Progress grading). Involving extensive reading and research in the field of neuroscience honors program students. Directed independent research in the laboratory, 12 hours minimum. Requisites: course M101A, Molecular, Cell, and Developmental Biology M175A or Psychology M117A) or Molecular, Cell, and Developmental Biology 171 or Physiological Science 111A or Psychology 115. Strongly recommended: course M102. Theory, methodologies, applications, and limitations of neuroimaging. Techniques, biological questions, and results. Brain structure, brain function, and their relationship discussed with regard to imaging. Concurrently scheduled with course CM272. Letter grading.

194. Independent Study of Neuroscience Literature. (2) Library research, six hours minimum. Requisite: course M101A. Directed independent library research with a faculty member. Written proposal must be submitted prior to start of course, with a paper required at end of term. May not be applied toward elective requirements for the major and may not be taken concurrently with course 199, 199HA, or 199HB. P/NP grading.

196H. Honors in Neuroscience. (4) Lecture, one hour; discussion, two hours. Preparation: one statistics course (Statistics 10 or equivalent). Limited to neuroscience honors program students. Instructs in principles of scientific method, ethics, and written and oral communication; critique of current journal articles and research projects. Presentation of individual research. May not be applied toward elective requirements for the major. Must be taken during Winter Quarter of academic year that student enrolls in courses 199HA and 199HB. Letter grading.

197A-197B-197C. Special Topics in Neuroscience. (4–4–4) Lecture, four hours. Requisite: course M101A or Physiological Science 111A. Topics on one or more aspects of neuroscience. May be applied as an elective only in the specific area of group 2. Each course may be repeated once for credit. P/NP or letter grading.

197A. Behavioral and Cognitive Neuroscience 197B. Systems and Integrative Neuroscience 197C. Molecular, Cell, and Developmental Neuroscience.

199. Independent Research in Neuroscience. (4) Laboratory, 12 hours minimum. Requisites: course M101A or Physiological Science 111A. Topics on one or more aspects of neuroscience. May be applied as an elective only in the specific area of group 2. Each course may be repeated once for credit. P/NP or letter grading.

199A. Honors Thesis in Neuroscience. (4) Laboratory, 12 hours minimum. Requisites: course M101A, Honors Collegium 99. Limited to neuroscience honors program students. Directed independent research involving extensive reading and research in the field of proposed honors thesis. For departmental honors, students must also take course 199H. Maximum of 8 units of courses 199, 199HA, 199HB may be applied toward the major. Letter grading.

199B. Honors Thesis in Neuroscience. (4) Laboratory, 12 hours minimum. Requisite: course 199HA. Continued reading and research that culminate in honors thesis. For departmental honors, students must also take course 199H. Maximum of 8 units of courses 199, 199HA, 199HB may be applied toward the major. Letter grading.

Affiliated Faculty Professors


Neuroscience

Interdepartmental Graduate Program

David Geffen School of Medicine

UCLA

1506D Gonda Center

Box 951761

Los Angeles, CA 90095-1761

(310) 825-8153, 825-3390

e-mail: neuroph@mmednet.ucla.edu

http://www.neuroscience.ucla.edu

Michael S. Levine, Ph.D., Chair

Faculty Advisory Committee

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Course List

Molecular, Cell, and Developmental Biology C139. Molecular, Cellular, and Developmental Neurobiology

Neurobiology/Medical History M169. History of Neurosciences

Organismic Biology, Ecology, and Evolution M173. Anatomy and Physiology of Sense Organs


Graduate Degree

The Neuroscience Program offers the Doctor of Philosophy (Ph.D.) degree in Neuroscience.

Graduate Courses

M201. Molecular, Cellular, and Developmental Neurobiology. (6) (Same as Molecular, Cell, and Developmental Biology CM220, Neurobiology M200B, and Physiology M202A.) Three hours; discussion, two hours; laboratory, two hours. Fundamental topics concerning molecular, cellular, and developmental neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synaptogenesis, formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neurobiology M200F and Psychological Science M202.) Lecture, three hours; discussion, two hours. Requisites: Molecular, Cell, and Developmental Biology 171 or Organic Chemistry M166, Psychological Science 111A or M180A or Physics 6B. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M203A-M203B. Organization of Neural Systems. (4-4) (Formerly numbered 203A-203B.) (Same as Biomedical Engineering M263A-M263B.) Lecture, three hours; discussion/laboratory, three hours. Integration of anatomical and systems-level functional analysis of neural circuits leading to appreciation of their emergent properties. Discussion of organization of vertebrate central and peripheral nervous system based on cellular histological and regional analysis, highlighting contemporary experimental approaches. Topics include sensory processing, motor systems, physiological regulation, drive, learning, and neural basis of cognition. In Progress and letter grading.

205. Systems Neuroscience. (4) Lecture/discussion, four hours. Introduction to fundamentals of systems neuroscience, with emphasis on integration of molecular mechanisms, cellular processes, anatomical circuits, and behavioral analysis to understand function of neural systems.

M206. Neuroengineering. (4) (Same as Biomedical Engineering M266.) Lecture, four hours; laboratory, three hours. Requisites: Mathematics 32A, Molecular, Cell, and Developmental Biology 100, 171. Introduction to principles and technologies of neural recording and stimulation. Neurophysiology; clinical electrophysiology (EEG, evoked potentials, inverse problem, preoperative brain imaging), extracellular microelectrodes and recording (field potentials and single units), chronic recording with extracellular electrodes; electrode biocompatibility, tissue damage, electrode and cable survival; intracellular recording and glass pipettes electrodes, iontophoresis; imaging neural activity (Ca imaging, voltage-sensitive dyes), intrinsic optical imaging; MRI, fMRI. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Debate on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, peer review, use of animals and humans in biomedical research, conflicts of interest, technology, and scientific integrity. S/U grading.

Coursework:

NURSING
School of Nursing
UCLA
2-200 Factor Building
Box 951702
Los Angeles, CA 90095-1702
(310) 825-7181
fax: (310) 206-7433
e-mail: sonsaff@sonnet.ucla.edu
http://www.nursing.ucla.edu/son/

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Adeline M. Nyamathi, A.N.P., Ph.D., F.A.A.N., Associate Dean for Academic Affairs
Mary A. Woo, R.N., D.N.Sc., F.A.A.N., Associate Dean for Research

Professors
Lina K. Badr, R.N., D.N.Sc., F.A.A.N., Chandra C. Covington, R.N., Ph.D.
Marie J. Cowan, R.N., Ph.D., F.A.A.N.
Deborah Konia-Giffith, R.N., Ed.D., F.A.A.N.
Mary A. Lewis, R.N., Dr.P.H., F.A.A.N.
Adeline M. Nyamathi, A.N.P., Ph.D., F.A.A.N.
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Susan M. Mortensen, R.N., M.N.
Josephine D. Ortiz, R.N., M.S.N.
Dale R. Perry, R.N., M.S.N.

Associate Dean for Research
Dr. Dale R. Perry, R.N., Ph.D., F.A.A.N.

Scope and Objectives
The UCLA School of Nursing gives direction to interested potential applicants through monthly open counseling sessions. Students interested in the academic programs offered are urged to attend a counseling session or request a copy of the Announcement of the UCLA School of Nursing by writing to the Student Affairs Office.
School of Nursing, UCLA, Box 951702, Los Angeles, CA 90095-1702, or by calling (310) 825-7181 Tuesday through Thursday.

History and Accreditation
In 1949 The Regents of the University authorized the School of Nursing as one of the professional schools of the UCLA Center for the Health Sciences. This action paved the way for the development of an undergraduate basic program in Nursing leading to the Bachelor of Science degree and made possible the establishment of a graduate program leading to the Master of Science degree. In 1966 the Master of Nursing (M.N.) degree was established as an alternate option to the M.S. degree. The Master of Science degree program was discontinued in 1969. The Regents approved the Doctor of Nursing Science (D.N.Sc.) degree program in 1986, and in Fall Quarter 1987 the first doctoral students were admitted. In 1996 the Office of the President and the Regents approved the change in the master’s degree designation from M.N. to Master of Science in Nursing (M.S.N.); the change in doctoral degree designation from D.N.Sc. to Ph.D. in Nursing was approved in 1995.

The B.S. degree curriculum was revised in 1997 to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. The first group of students began their studies in the summer of 1997.

The School of Nursing became an agency member of the Department of Baccalaureate and Higher Degree Programs of the National League for Nursing in 1952. The National League for Nursing Accrediting Commission (NLNAC, 350 Hudson Street, New York, NY 10014, 212-989-9393, ext. 153) has granted full accreditation to the programs since 1954. The master’s clinical nurse specialist, nurse practitioner, and nurse-midwifery programs have Board of Registered Nursing approval. In 2001, the Commission on Collegiate Nursing Education accredited the baccalaureate and master’s degree programs for a term of 10 years.

Undergraduate Study
Nursing B.S.
The baccalaureate program leading to the Bachelor of Science degree provides for a close interweaving of general and professional education. The physical, social, and emotional health aspects of nursing are emphasized throughout the curriculum. Clinical nursing experience under the guidance of faculty members is provided in hospitals, outpatient clinics, homes, and community health centers.

Admission
The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission, beginning in the junior year, is based on licensure as a registered nurse and a minimum of one year of full-time experience as an R.N. within the past five years, completion of requisite courses, scholarship, and attainment of a passing score on four Excelsior College Examinations. Students must have grades of C or better in requisite courses and an overall grade-point average of 3.0 or better. Three letters of recommendation are also required. Diverse life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multicultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated. Consideration is also given to social and economic disadvantage such as educational background, heavy work schedule during school, housing conditions, family responsibilities, and mastery of physical disabilities. Completed applications should reflect clearly identified career goals and documentation of potential in advanced practice nursing.

Applications for acceptance to the baccalaureate program must be filed no later than November 30 for the next Fall Quarter. The School of Nursing admits students each Fall Quarter. In addition to the regular UC Application for Undergraduate Admission and Scholarships which must be returned in the self-addressed envelope included in the packet, an application must be filed with the school by November 30. This application is available directly from the Student Affairs Office, School of Nursing, UCLA, Box 951702, Los Angeles, CA 90095-1702.

Degree Requirements
Students must complete 180 quarter units of college work and satisfy the general University requirements as follows:

1. Completion of all required general education courses as specified for completion both prior to admission and/or at UCLA: human anatomy (one course), sociocultural anthropology (one course), humanities (one or more courses), English composition (two courses), mathematics (one course), introductory or general microbiology with laboratory (one course), human nutrition (one course), introductory physics (one course or one year of high school physics with laboratory and a grade of B or better), human physiology (one course), introductory psychology (one course), introductory sociology (one course), and electives as needed
2. Completion of a block of 30 units of credit by examination administered by the Excelsior College Examination Service in Adult Nursing, Fundamentals of Nursing, Maternal and Child Nursing-AD, and Psychiatric/Mental Health Nursing (this unit credit applies to the Nursing major only)
3. Completion of 76 to 88 units of lower and upper division coursework in residence, including Biostatistics 100A, Chemistry and Biochemistry 14A, 14B, 14C, Epidemiology 100, Life Sciences 2, 3, Nursing 102, 104, 190, 192, 193, 195, 196, 200, 220, and one or more courses from 213A, 214F, 216F, 237A, and three 4-unit electives

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.

All required nursing courses in the school must be completed with a grade of C or better in each course.

Study Lists
Students may not enroll in more than four courses per term unless a petition is approved in advance by the associate dean.

Honors
Dean’s Honors
To receive Dean’s Honors in the School of Nursing, undergraduate students must have at least 12 graded units per term with a grade-point average of 3.75. 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 undergraduate students with superior overall grade-point averages. The levels of honors and the requirements for each level are: summa cum laude, an overall average of 3.847; magna cum laude, 3.748; cum laude, 3.598. To be eligible students must have completed at least 98 University of California units for a letter grade. See the Schedule of Classes for the most current calculations of Latin honors.

School of Nursing Faculty Award
The Faculty Award for excellence in nursing, established in 1965, is awarded to a student graduating from the bachelor’s and the master’s program with the highest grade-point average in all nursing courses.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.N.) degree and the Doctor of Philosophy (Ph.D.) degree in Nursing. A concurrent degree program (Nursing M.S.N./Management M.B.A.) is also offered.
102. Professional Nursing in Culturally Diverse Communities. (5) Lecture, four hours; community experience, one hour. Introductory course to assist registered nurses in transition to professional nursing in context of a complex and dynamic health care system. Analyses include individual and population-based approaches to care in context in dynamic multicultural communities. Letter grading.

104. Theoretical Foundations for Examination of Health Issues in Culturally Diverse Community-Based Settings. (4) Lecture, three hours; discussion, one hour. Requisite: course 102. Examination of selected theories related to health and illness from a biobehavioral and health systems framework. Current theoretical perspectives as they relate to issues among culturally diverse populations in community-based settings. Focus on relevance and application of each theory and related research for selected culturally diverse groups. Letter grading.

105. Human Physiology. (4) Lecture, three hours; discussion, one hour. Designed for nursing students. Lecture and discussion, with emphasis on a correlating approach to anatomy and physiology of human body. P/NP or letter grading.

M158. Culture, Illness, and Healing. (4) (Same as Anthropology M168.) Lecture, four hours. Medical anthropology is organized around holistic exploration of ways in which health, illness, and medical practices are socially and culturally mediated. Topics include comparing illness experiences, understandings about health and illness, patterns of care seeking, therapeutic practices, and medical systems in context of different social and cultural settings, including our own. P/NP or letter grading.

190. Community Health Nursing. (8) Lecture, three hours; clinical, 15 hours; clinical conference, 30 minutes. Clinical concentration in multicultural community health nurse settings: public health, rehabilitation, mental health centers, home health, occupational health, and schools. Theoretical content focuses on the community as a context for understanding relationships between health status of individuals and groups with psychosocial environment. Letter grading.

192. Physical Assessment. (4) Lecture, three hours; laboratory, three hours. Designed to provide in-depth review and synthesis of physical assessment skills and knowledge covering the life span. Individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required text are mandatory. Letter grading.

193. Introduction to Research. (4) Lecture, four hours. Introduction to planning a research project based on a simple question. Specific components of research activities analyzed: specific aims and study purposes, variable definition, sample selection, data collection tools, data analyses, and ethical conduct in research studies. Critique of research reports. P/NP or letter grading.

195. Nursing Management. (3) Lecture, two hours; field study, three hours. Requisites: courses 102, 104. Management theory applied to nursing practice. Acquisition of understanding of management concepts and skills as practiced in organizational structures and community health care settings. Letter grading.

196. Issues in Providing Health Care to Culturally Diverse Populations. (3) Lecture, three hours; discussion, one hour. Open to non-nursing students with consent of instructor. Theoretical and experiential course designed to provide a base for understanding issues of providing health care to culturally diverse populations, with emphasis on strategies to facilitate intercultural/intracultural communication and intergroup/ intragroup dynamics in health care settings. P/NP or letter grading.

199. Special Studies in Nursing. (2 to 16) Tutorial, to be arranged. Limited to seniors. Individual study of a problem in the field of nursing. May be repeated for credit, but only 4 units may be applied toward degree requirements. P/NP or letter grading.

Graduate Courses


201. Health-Related Quality of Life. (2) Lecture, two hours. Theoretical foundations of health-related quality of life as an outcome of disease, treatment, and style of care. Analysis of meaning, dimensions, predictors, measures, ethical dilemmas, cultural diversity issues, and biobehavioral foundations of health-related quality of life. Letter grading.

202. Professional Applications of Science in Nursing. (4) Lecture, four hours. Designed for Ph.D. students. Intended to explore major schools of thought in contemporary Western philosophy of science, with emphasis on ways in which these schools may and do influence nursing science and practice. S/U or letter grading.


204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 193 or equivalent research methodology course. Complex research designs and analysis of multiple variables, and research utilization. Emphasis on techniques for control of variables, data analysis, and interpretation of results. Analysis in depth 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 how these apply to clinical settings. Letter grading.

205. Advanced Research Methods. (4) Lecture, four hours. Preparation: one statistics course. Requi-sites: courses 193, 204. Research process and development of empirical research methodology and qualitative approach to designs. Students are encouraged to develop research proposal for clinical or basic research problem related to nursing care or variables affecting such care. Letter grading.

206A-206B. Nursing Theory Development. (4-4) Seminar, three hours; Preparation: 4 units of nursing theory. Requisite or corequisite: course 202 or philosophy of science course. Focus on major issues involved in development of nursing knowledge, including content and methods of developing nursing theory. In Progress and S/U or letter grading.

207. Research in Nursing: Measurement of Clini-cal Variables. (4) Lecture, three hours; discussion, one hour. Requisites: courses 204, 205. Introduction to wide array of research designs and measurement techniques for testing clinical nursing phenomena. Emphasis on dynamic interaction between research process and theory, as well as on comparative analyses of various designs, content analysis, use of appropriate controls, sources of error, and sensitivity problems. Letter grading.


209. Human Diversity in Health and Illness. (2) Lecture, two hours. Human diversity in response to illness that nurses diagnose and treat, centering on culture and human belief systems, and research with diverse orientations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.


211F. Theoretical Foundations of Women’s Health Care. (4) (Formerly numbered C211F.) Lecture, three hours; discussion, one hour. Critical evaluation and application of women’s health, gynecological and family planning theory, and research and practice guidelines. Health promotion in diverse populations of women integrated within context of management of common health care problems, needs, and deficits. Letter grading.

212. Health-Related Family Theory. (2) (Formerly numbered C212.) 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 related to family study and application of current knowledge to various problems encountered in care of families. Letter grading.

213A. Occupational Health Nursing Role and The-ory. (4) (Formerly numbered C213A.) Lecture, four hours. Introduction to multidisciplinary occupational health environment, including work settings, occupational health nursing scope and standards of practice, and legal and regulatory issues that affect occupational health nursing. Letter grading.

213B. Health Assessment, Research, and Health Promotion in Occupational Health. (3) (Formerly numbered 213C.) Lecture, three hours. Requisite: course 213A. Clinical practice issues in occupational health nursing, including adult workforce health issues, adult workforce health assessment, and special populations at risk. Health promotion and research in occupational health. Letter grading.


214F. Human Responses to Cancer. (4) (Formerly numbered C214F.) Lecture, three hours; selected field experiences. Syntheses of cancer-related research and theory of principles of cancer, cancer prevention, screening, diagnosis, staging, treatment, symptom management, rehabilitation, and quality of life, with application to advanced oncology nursing practice. Letter grading.

215F. Human Responses to Cancer. (4) (Formerly numbered C215F.) Lecture, three hours; selected field experience. (Formerly numbered C214F.) Application of cancer-related theory/research to clinical practice, with emphasis on assessment and intervention of nursing care problems in response to cancer and cancer treatment. Focus on issues affecting nursing care in prevention, screening, diagnosis, treatment, symptom management, rehabilitation, and quality of life related to responses to major cancers. Letter grading.


217F. Human Responses to Critical Illness. (4) (Formerly numbered C217F.) Lecture, three hours; discussion, one hour. Requisite: course 216F. Builds on pathophysiological concepts and nursing management of acutely and critically ill adults presented in course 216F. Emphasis on synthesis of research, theory, and experiential knowledge and skills to provide advanced preparation for acute care advanced practice nurses. Letter grading.


218C. Nursing Administration Theory. (4) Lecture, four hours. Requisite: course 218B. Project management of change, development, and change, diverse relationships within the organization, risk management, liability, and ethics of administration decision making. Emphasis on issues affecting local, national, and international health care management. Letter grading.


219A. Essentials of Accounting and Budgeting in Health Care Organizations. (4) Lecture, four hours. Theories of management, organization, and administra- tion presented in relation to techniques of account- ing, budgeting, finance, and health care economics. Focus on definition of terms and concepts, followed by practical applications within a variety of health care settings. Letter grading.


220. Theories of Instruction and Learning in Nurs- ing. (3) (Formerly numbered C220.) Lecture, two hours; computer practice, one hour; learning, curriculum and program development, and princi- ples and techniques of evaluation. Examination of ed- ucator role of advanced practice nurse in variety of settings and with diverse sociocultural groups. Opportunities provided for skill development in use of computer-based information systems and development of instructional aids. Letter grading.

222. Immunosuppression and Patient Care. (2) Lecture, two hours. Research related to immunosup- pression, its causes, clinical manifestations, and mod- ifiers. Special emphasis on physiologic and patho- physiologic mechanisms of immunosuppression as a basis for information in patient education and clinical decisions, and supportive treatments and modifiers. Letter grading.

223. Childhood Development: Research and Ap- plication to Nursing. (2) (Formerly numbered C223.) Lecture, two hours. Biobehavioral theories and research of current research and theory in child development and their application to care of children. Provides scientific basis for understanding human growth and development, anticipating problems, and managing barriers to growth and development throughout childhood. Letter grading.


225. Pharmacology for Advanced Practice Nurs- es. (4) Lecture, four hours. Knowledge of and skills in pharmacology necessary for advanced practice nurses who have clients/patients with stable acute or chronic conditions. Letter grading.

226. Theory Development for Biological Sciences. (4) Lecture, four hours. Requisites: courses 206A, 206B. Survey course to explore ways in which physio- logic theory (including systems, genetics, genetic tox- icity, infection, cellular injury and death, and signal transduction theory) informs nursing investigations. Emphasis on research design of studies evaluating the effects of drugs. Nursing implications of research. Letter grading.


229. Biologic/Psychologic Interface in Health and Illness. (2) Lecture, two hours. Interaction of physi-ologic, behavioral, and psychosocial factors in illness, and theory and research underlying these factors, in- cluding differential influence of gender, ethnicity, and culture. Letter grading.

230. Advanced Pathophysiology. (4) (Formerly numbered C230.) Lecture, four hours. Requisite: course 105 or equivalent taken within past five years. In-depth examination of pathophysiological processes that underlie human illness and disease, with de- tailed study of these in major body systems. Examina- tion of manifestations of and responses to process- es of cellular and molecular pathology at extracellular, cellular, and human levels. Letter grading.


232. Human Responses to Aging and Chronic Ill- ness. (4) Lecture, four hours. Pathophysi- ologic concepts and nursing management of older adults who are healthy or who have disability and/or chronic illness. Nursing aspects of selected dysfunc- tions and implications for advanced practice in geron- tological nursing. Letter grading.

232F. Human Responses to Aging and Chronic Ill- ness. (4) (Formerly numbered C232F.) Lecture/discus- sion, four hours. Pathophysiological 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 Ill- ness. (2) Lecture/discussion, four hours. Biopsysio- social concepts and nursing management of healthy, disabled, and/or chronically ill older adults, address- ing pathophysiological aspects of common health problems. Implications for advanced practice in ger- ontological nursing. Letter grading.

233F. Human Responses to Aging and Chronic Ill- ness. (4) Lecture/discussion, four hours. Biopsysio- social concepts and nursing management of healthy, disabled, and/or chronically ill older adults, address- ing pathophysiological aspects of common health problems. Implications for advanced practice in ger- ontological nursing. Letter grading.


237A. Primary Care of Women: Antepartum Man- agement. (4) (Formerly numbered C237A.) Lecture, four hours. Presentation of current nursing literature related to assessment and management of women during preg- nancy, with emphasis on current nursing models of primary and independent/collaborative care of wom- en/families during antepartum period. (Formerly numbered C223F.) Lecture, two hours. Implications and application to Nursing. (2) Lecture, four hours. Requisite: course 237A. Letter grading.

237B. Primary Care of Women: Intrapartum and Postpartum Management. (4) (Formerly numbered C237B.) Lecture, four hours. Requisite: course 237B. Biologic and behavioral issues pertinent to care of women during labor, birth, and postpartum, including analysis of relevant research and critical thinking/de- cision making in clinical management. Presentation of content as outlined in ACNM Core Competencies, “Care of Childbearing Family.” Sections IIC and D. Letter grading.


238B. Theoretical Foundations of Nursing of Children: Complex Illnesses and Problems. (2 or 4) Lecture, four hours. Biologic and research emphasize physiological and psychological basis for common childhood illnesses and problems; evaluation of alternative therapies in research literature also emphasized. Advanced science base for assessment, diagnosis, and management of common childhood illnesses and problems. Letter grading.


241. Biobehavioral Foundations of Neuropsychiatric Assessment. (2) Lecture, two hours. Biologic 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 biobehavioral approach. Letter grading.

242. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (2) Lecture, two hours. Biologic and behavioral research from variety of disciplines, including nursing, for application to treatment of neuropsychiatric dysfunction. Exploration of research underling treatment interaction in cognitive, addictive, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.

242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biologic and behavioral research from variety of disciplines, including nursing, for application to treatment of neuropsychiatric dysfunction. Exploration of research underling treatment interaction in cognitive, addictive, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.


244. Theoretical Foundations of Complementary Health Care II. (2) Lecture, two hours. Specifics of alternative therapies, body-mind principles, and traditional Chinese medicine assessment and diagnosis provided within framework of theory and research. Major emphasis on understanding integration of these complementary therapies with Western diagnosis and management. Letter grading.

244F. Theoretical Foundations of Complementary Health Care II. (4) Lecture, four hours. Specifics of alternative therapies, body-mind principles, and traditional Chinese medicine assessment and diagnosis provided within framework of theory and research. Major emphasis on understanding integration of these complementary therapies with Western diagnosis and management. Letter grading.

245. Theoretical Foundations of Clinical Nurse Specialist Practice. (4) Lecture/discussion, 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 health care systems through case-study analysis, with focus on application to clinical practice settings which include culturally diverse populations. Letter grading.

264. Professional Issues in Nursing. (3) Lecture, three hours. Requisite: course 418A or 437A or 438A or 439A. Assessment of organizational, legal, ethical, and health care policy issues in relation to delivery of health care services by advanced practice nurses in evolving health care system. Letter grading.

M273, Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Anthropology M263Q, Community Health Sciences M244, and Psychiatry M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.


279A. Nursing Research Seminar. (3) Seminar, three hours. Requisites: courses 206A, 206B, 207, 208. Seminar to assist students who are beginning careers in nursing research to understand scientific research issues of misconduct and scientific integrity. Highlights practical experience of faculty in assuring scientific integrity while conducting research, culminating in communication and dissemination of their research. S/U grading.

299B-299C. Nursing Research/Laboratory Experiences. (4-4) Seminar/discussion, one hour; research laboratory, three hours. Offered: courses 202, 206A, 206B. Seminars and research/laboratory-based experiences to assist students to prepare for careers as scientists, with focus on research methodology and mentorship. S/U grading.

299D. Nursing Education Seminar. (1 to 4) Seminar, one hour, discussion. Letter grading. S/U grading.

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

418A. Nursing Administration Practicum. (3 or 4) Clinical practicum, eight to 12 hours. Conference, one hour. Letter grading. S/U grading.

418B. Nursing Administration Practicum. (3 or 4) Clinical practicum, eight or 11 hours; clinical conference, one hour. Requisite: courses 219A, 219B. Synthesis, evaluation, and practical application of organizational theory in practice setting, with emphasis on content presented in course 218A, including organizational structure, processes, outcomes. Letter grading.

418C. Nursing Administration Practicum. (3 or 4) Clinical practicum, eight or 11 hours; clinical conference, one hour. Requisite: courses 218B, 418A. Experience in organizational setting for synthesizing content from course 218B, including strategic planning and management, care delivery systems, resource management, decision making, management information systems, professional practice, and meeting accreditation and legal standards. Letter grading.

418C. Nursing Administration Practicum. (3 or 4) Clinical practicum, eight or 11 hours; clinical conference, one hour. Requisite: courses 218B, 418A. Experience in organizational setting for synthesizing and evaluating content from course 218B, including processes of project management, organizational communication, governance, problem solving, decision making, and change, diverse relationships within organization, risk management, liability, and ethics of administration decision making. Letter grading.

418D. Nursing Administration Residency. (12) Clinical practicum, 33 hours; clinical conference, one hour. Requisite: courses 218C, 418C. Experience in organization setting as students assume leadership role in planning, managing, and evaluating an administrative project. Synthesizing of content from course 218D, including assessing community health care needs, marketing, media, and political action and health care policy. S/U grading.


437A. Nurse-Midwifery Clinical Management I. (2) Clinical practicum, five hours; clinical conference, one hour. Requisite: course 237C. Application of theory, knowledge, and research of primary care of women during antepartum period, with emphasis on counseling and screening for prevention and early detection of common risk conditions that may complicate prenatal period. Letter grading.
437B. Nurse-Midwifery Clinical Management II. (4) [Formerly numbered 437C.] Clinic, 12 hours. Corequisite: 437A. Application of current theory, research, and knowledge relevant to nurse-midwifery management of childbearing family during intrapartum and postpartum periods and continued practice of previous clinical content. Clinical practice of intrapartum, postpartum and professional competencies as outlined in ACNM Core Competencies. Letter grading.

437C. Nurse-Midwifery Clinical Management III. (4) [Formerly numbered 437B.] Clinic, 12 hours. Corequisite: course 237C. Synthesis of previous course and clinical work and continued practice of assessment and management of childbearing family and newborn. Emphasis on development of expanded skills in comprehensive assessment of health problems, including elements of primary care that focus on health promotion, education, disease prevention, and client advocacy. Letter grading.


437F. Nurse-Midwifery Integration. (8) Clinic, 24 hours. Requisite: course 437E. Students assume management responsibility for full scope of nurse-midwifery practice, providing continuity and comprehensive obstetric care to the childbearing woman, care to the newborn, family planning, and gynecologic care to the well woman. Students expected to implement one of the functional aspects of clinical nurse specialist role (i.e., educator, practitioner, researcher, or consultant). Letter grading.


438D. Pediatric Primary Care: Residency. (8) Clinic practicum, 24 hours. Requisites: courses 238C, 438C. Students assume primary responsibility for planning, managing, and evaluating care of children. Research, theory, and clinical knowledge analyzed, integrated, and applied to care of children and families with actual or potential health problems. Letter grading.


439B. Advanced Practice Nursing: Clinical Practice. (6) Clinic practicum, 18 hours. Corequisite: course 239B. Continuation of course 439A for advanced practice nurses, with emphasis on nursing management of acute and chronic health problems in selected populations. Developmental needs of clients in relation to family, social, and cultural structures. Letter grading.

439C. Advanced Practice Nursing: Clinical Practice. (6) Clinic practicum, 18 hours. Corequisite: course 239C. Third clinical practicum course for advanced practice nurses, with focus on nursing assessment and intervention in common illness-association of symptoms and complex patient/family presentations. Analysis, evaluation, and integration of current research and theory to provide basis for development of interventions and treatment for acute and chronic problems across life span. Letter grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA assistant dean and graduate dean, and host campus instructor, director, academic 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 M.S.N. 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. Opportunity for individual graduate nursing students to pursue special studies or research interests. May be repeated once for credit, but only 4 units may be applied toward M.S.N. degree requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (2 to 8) Tutorial, to be arranged. Individualized faculty supervision of Ph.D. dissertation research by student's chair. May be repeated for credit, but only 8 units may be applied toward Ph.D. degree requirements. S/U grading.

Obstetrics and Gynecology / 447

Obstetrics and Gynecology

David Geffen School of Medicine

UCLA

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Jonathan S. Berek, M.D., M.M.Sc., Executive Vice Chair
Teichiro Fukushima, M.D., Vice Chair, King/Drew
Howard L. Judd, M.D., Vice Chair, Olive View-UCLA
Ricardo Aziz, M.D., Vice Chair, Cedars-Sinai
Michael G. Ross, M.D., Vice Chair, Harbor-UCLA

Scope and Objectives

The medical student program in obstetrics and gynecology is designed to provide firm background in the essentials of women's health. 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 which emphasize subspecialties such as maternal/fetal medicine, reproductive endocrinology, gynecologic oncology, and family planning.

For further details on the Department of Obstetrics and Gynecology and a listing of the courses offered, see http://www.obgyn.medsch.ucla.edu.
Scope and Objectives

Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology and the Jules Stein Eye Institute (including the Doris Stein Eye Research Center) are closely coordinated to form a comprehensive center for research in the sciences related to vision, for the care of patients with disease of the eyes and related structures, and for education in the broad field of ophthalmology.

The Department of Ophthalmology provides instruction to medical students during the second, third, and fourth years. Through lectures, demonstrations, discussions, and the opportunity to observe patients and review data on cases with a variety of ocular conditions, students gain knowledge and experience in ophthalmology.

For further details on the Department of Ophthalmology and a listing of the courses offered, see http://www.jsei.org/Education/index.htm.

ORAL BIOLOGY

School of Dentistry

UCLA

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David T.W. Wong, D.M.D., D.M.Sc, Chair

Professors

George W. Bernard, D.D.S., Ph.D.
Robert Chiu, Ph.D.
Douglas Junge, Ph.D.

201A. Biology of the Temporomandibular Joint. (2) Anatomy, histology, physiology, and biomechanics of the temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging.

211. Biology of the Temporomandibular Joint. (2) Anatomy, histology, physiology, and biomechanics of the temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging.

206. Current Topics in Oral Immunology. (1) Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal paraimmunology, caries immunology, endodontic immunology, etc.

209. Scientific Ethics. (2) Lecture, one hour; laboratory, one hour. Required course in scientific ethics for graduate students in Oral Biology M.S. and Ph.D. programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of the Temporomandibular Joint. (2) Anatomy, histology, physiology, and biomechanics of the temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging.

256A-256B. Craniofacial Growth and Development. (2-2) Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics which aid their understanding and analysis of course content that has application to their specific and professional fields. In Progress grading.

227. Dental Embryology and Histology. (2) Description and interpretation of important stages in development of the oral apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of the oral apparatus which are of significance to clinical dental specialists.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry. General principles of drug action and drug effects on autonomic and central nervous systems.

Lawrence E. Wolinsky, D.D.S., Ph.D.

Professors Emeriti

Colin K. Franker, Ph.D.
Louis J. Goldberg, D.D.S., Ph.D.

Associate Professors

Francesco Chappell, Ph.D.
Jacob Fleischmann, M.D.
Susan A. Haake, D.M.D., M.D., Ph.D.
Kenneth T. Miyasaka, D.D.S., M.S., Ph.D.
Wenyuan Shi, Ph.D.
Igor Speigelman, Ph.D.

Assistant Professors

George Huang, D.D.S., M.S.D., D.Sc.
Anahid Jewett, M.P.H., Ph.D.

Adjunct Professors

Carol A. Bibb, Ph.D., D.D.S.
Bernard G. Sarnat, M.D., M.S., D.D.S.

Adjunct Associate Professor

Diana Messadi, D.D.S., Ph.D.

Adjunct Assistant Professor

Shen Pang, Ph.D.

ORAL BIOLOGY

School of Dentistry

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Sherwin J. Isenberg, M.D. (Grace and Walter Lantz Endowed Professor), Vice Chair, Harbor-UCLA
Arthur L. Rosenbaum, M.D., (Grace and Walter Lantz Endowed Professor), Chair

Graduate Courses

201A-201B: Advanced Oral Biology. (3-2-3) Lecture, three hours/two hours/three hours: 201A. Osteogenesis. (3) Lecture, three hours. Evolutionary perspective of cellular development from simple molecules that were formed during the first billion years of the Earth to development of cells, tissues, and organs of invertebrates and vertebrates. Development of vertebrate feeding apparatus from a comparative anatomical and physiological point of view, followed by embryogenesis of orofacial and dental structures of humans. S/U or letter grading.

201B. Homeostasis in Oral Systems. (2) Lecture, two hours. Normal regulatory functions of various oral systems. Topics include mechanisms of salivary secretion and nonspecific salivary protective mechanisms; integrative action of oral sensory systems such as touch, pain, and taste; normal control of movements in jaw and face. Letter grading.

211C. Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of the 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.

201D. Oral Embryology and Histology. (4) (Same as Neurobiology M229.) Lecture, four hours. Lectures and laboratory instruction in development and histological structure of facial region and oral and peri-oral organs and tissues. Letter grading.

201E. Mechanisms and Relief of Pain. (2) (Same as Neuroscience M233.) Advanced treatment of neuroanatomical, neurophysiological, and biochemical bases of pain perception. Topics include classical pain theories, pain receptors and pathways, endogenous mechanisms of pain modulation, and pharmacological basis for treatment of pain disorders.

202. Methodology in Research Design and Data Analysis. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Designed for graduate oral biology students. Integration of didactic lectures in descriptive and inferential statistics and in research design (emphasis on experimental design), presentations of statistical software, and open discussion of specific needs of oral biology students when they design their Ph.D. research.

206. Current Topics in Oral Immunology. (1) Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, caries immunology, endodontic immunology, etc.

209. Scientific Ethics. (2) Lecture, one hour; laboratory, one hour. Required course in scientific ethics for graduate students in Oral Biology M.S. and Ph.D. programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of the Temporomandibular Joint. (2) Anatomy, histology, physiology, and biomechanics of the temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging.

215. Fundamentals of Immunology. (2) Basic cellular and molecular mechanisms involved in responses mediated by immune effectors, with emphasis on immunopathology involved in autoimmunity, cancer, and immunodeficiency syndromes.

226A-226B. Craniofacial Growth and Development. (2-2) Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics which aid their understanding and analysis of course content that has application to their specific and professional fields. In Progress grading.

227. Dental Embryology and Histology. (2) Description and interpretation of important stages in development of the oral apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of the oral apparatus which are of significance to clinical dental specialists.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry. General principles of drug action and drug effects on autonomic and central nervous systems.
M234. Seminar: Developmental Neuroendocrine-immunology. (2) (Same as Neurobiology M234.) Designed for graduate students. Psychological and physiological processes intertwine, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from a developmental perspective. S/U or letter grading.

260. Oral Biology Seminar. (2) Seminar, one hour; outside research, one hour. Research seminar to discuss faculty and student research of oral biology and related disciplines. Discussion of basic sciences related to oral biology, involving participants in important areas of investigation. S/U grading.

273. Research in Clinical Immunology and Lymphology. Lecture, one hour; discussion, one hour. Forum for discussion of cutting-edge topics in immunology and lymphology from clinical perspective. Emphasis on immune surveillance and lymphatic drainage of oral pathologies associated with AIDS and other diseases.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecular and cell biology, with emphasis on applications in dental research.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.


ORGANISMIC BIOLOGY, ECOLOGY, AND EVOLUTION
College of Letters and Science

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Scope and Objectives
Organismic biology touches every aspect of modern life, and understanding how living organisms are adapted to their environments is the major challenge of the discipline. To meet this challenge, the Department of Organismic Biology, Ecology, and Evolution offers undergraduate and graduate instruction at all levels of biology. In regulatory and physiological processes within organisms through the natural ecology and behavior of living organisms and to the population and community dynamics of multiple species. All of these subject areas address practical problems facing the world today, and all influence human decisions on matters ranging from conservation of the environment to advancement of medical science.

The Bachelor of Science degrees combine essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as advanced in-depth exposure to some of them. The Master of Arts and Ph.D. degrees provide opportunities for advanced, concentrated study. The Master of Arts degree requires, in addition to specified coursework, completion of either a comprehensive examination or the performance of original research culminating in a thesis. The Ph.D. degree requires independent and innovative research that ultimately results in a dissertation.

Undergraduate Study
Students may earn a Bachelor of Science degree in one of four different majors within the department: Biology (general biology); Ecology, Behavior, and Evolution; Marine Biology; and Plant Biology. The majors build on similar lower division introductory courses and differ primarily in the upper division requirements. The Biology major is designed for students who desire exposure to a wide range of biological subjects and for students who later seek admission to health sciences-related professional schools. The remaining three majors — Ecology, Behavior, and Evolution, Marine Biology, and Plant Biology — provide more specialized instruction and strong preparation for employment or subsequent graduate study in the respective disciplines.

Biology B.S.
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 excellent background preparation for postgraduate training in medicine and other health sciences, in tracks leading to academic and public service careers in biology, in biological industries, and even in nonbiological careers such as business, agriculture, and law. Emphasis is on breadth of training to expose students to all levels of modern biology.

Preparation for the Major
Life Sciences Core Curriculum
Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Organismic Biology, Ecology, and Evolution M22.

All core curriculum courses must be passed with a grade of C– or better and 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
To be admitted as Biology majors, transfer students 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, 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.

The Major
Required: Two morphology and systematic/ ecology, behavior, and evolution courses (Mi-
crobiology, Immunology, and Molecular Genetics 101, 101L, Organismic Biology, Ecology, and Evolution 103, 105, 116, 120, 122, C126, 129, 130, C135, 136); two developmental and molecular biology/physiology courses (Molecular, Cell, and Developmental Biology 13B, C141, 144, 171, Organismic Biology, Ecology, and Evolution 121, 128, C134A or 134B, 146, M158, 162, M166, 167, 179); two additional upper division courses in molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 193) or organic biology, ecology, and evolution (except Organismic Biology, Ecology, and Evolution 192); Chemistry and Biochemistry 153A, 153L; three additional upper division courses in atmospheric sciences (one course from Atmospheric Sciences 101, 102, 104, or 130), chemistry, mathematics (except Mathematics 106), microbiology, molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 193), organic biology, ecology, and evolution (except Organismic Biology, Ecology, and Evolution 192, 1991), physics, physiological science (except Physiological Science 193, 195A, 195B, 196), or from Biomathematics 110, Biostatistics 100B, Earth and Space Sciences 116, Geography 112, Psychology 115. Courses selected must include two laboratory courses (Organismic Biology, Ecology, and Evolution 101, 103, 105, 110, 116, M158, 162, M166, 167, 181).

A maximum of 8 units of the Organismic Biology, Ecology, and Evolution 190 series or 4 units of Organismic Biology, Ecology, and Evolution 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses 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.

Ecology, Behavior, and Evolution B.S.
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.

Preparation for the Major
Life Sciences Core Curriculum
Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A (31A, 31B, and 32A must be taken to satisfy the calculus requirement); Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Organismic Biology, Ecology, and Evolution M22.

All core curriculum courses must be passed with a grade of C– or better and 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
To be admitted as Ecology, Behavior, and Evolution majors, transfer students 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, 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.

The Major
Required: One morphology and systematics course (Organismic Biology, Ecology, and Evolution 103, 105, 110, or 130); one physiology course (Organismic Biology, Ecology, and Evolution 146, 162, M166, or 167); one additional laboratory course (Organismic Biology, Ecology, and Evolution 103, 105, 110, 136, 146, 162, M166, 167, or 181); three ecology, behavior, and evolution courses (Organismic Biology, Ecology, and Evolution C119, 120, 122, 129, C135); one field quarter consisting of two to four courses from the Field Biology Quarter (FBQ), Marine Biology Quarter (MBQ), or equivalent; Chemistry and Biochemistry 153A, 153L; two or more upper division courses in chemistry, geography, geology, mathematics (except Mathematics 106), microbiology, organic biology, ecology, and evolution (except Organismic Biology, Ecology, and Evolution 192, 1991), or physics (recommended: taxon-oriented courses such as Organismic Biology, Ecology, and Evolution 111, 112, 113A, 114, C115, 152; other courses in ecological, behavioral, and evolutionary processes such as Organismic Biology, Ecology, and Evolution 116, 117, 122, M127, 128, C134A, in addition to courses listed above).

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 high grade-point average.

Courses 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.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 10 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 Organismic Biology, Ecology, and Evolution C109 or C215 prior to applying for the Marine Biology Quarter.

Marine Biology B.S.
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.

Preparation for the Major
Life Sciences Core Curriculum
Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Earth and Space Sciences 15 or Atmospheric Sciences 6 or 6A; Organismic Biology, Ecology, and Evolution M22.

All core curriculum courses must be passed with a grade of C– or better and 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
To be admitted as Marine Biology majors, transfer students 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, one year of calculus, one year of general chemistry with laboratory for majors, and at least a 2.0 (C) overall average in all courses applied toward the major.
181); one marine organismic biology course (Organismic Biology, Ecology, and Evolution 101, 105, 112, or 137); one physiology course (Organismic Biology, Ecology, and Evolution 128, 162, M166, 167, or 179); one ecology, behavior, and evolution course (Organismic Biology, Ecology, and Evolution 116, C119, 120, 122, 129, C135, or 136); one field quarter consisting of four courses from the Marine Biology Quarter (MBQ) or equivalent field studies given elsewhere (for a 16-unit equivalent, see undergraduate adviser); two physical, chemical, or geological oceanography courses from Atmospheric Sciences 102, 103, 104, 130, Chemistry and Biochemistry 103, Earth and Space Sciences 100, 116, 119, 153, Geography 100, 101, 103, 123, 130, Mechanical and Aerospace Engineering 103 (strongly recommended), 150A.

Courses 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.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 10 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 Organismic Biology, Ecology, and Evolution C109 or C215 prior to applying for the Marine Biology Quarter. 

Plant Biology B.S.

The Plant Biology major prepares students for postgraduate programs and careers in plant biology, including environmental biology, ecology, agricultural sciences, plant physiology, and cellular biology. Students select key courses to obtain a sound, broad foundation in plant biology, learning state-of-the-art research techniques. They are also given opportunity to participate in individual supervised research projects using plants as experimental organisms.

Preparation for the Major

Life Sciences Core Curriculum

*Required:* Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Organismic Biology, Ecology, and Evolution M22.

All core curriculum courses must be passed with a grade of C– or better and 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

To be admitted as Plant Biology majors, transfer students 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, 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.

The Major

*Required:* Chemistry and Biochemistry 153A, Organismic Biology, Ecology, and Evolution 146 or 162; one laboratory course (Organismic Biology, Ecology, and Evolution 101, 103, 105, 116, M158, 162, M166, or 167); one plant morphology or anatomy course (Organismic Biology, Ecology, and Evolution 101, 103, or 152); two molecular or cellular plant biology courses (Molecular, Cell, and Developmental Biology C114, C150, M170); Organismic Biology, Ecology, and Evolution 121; one ecology or evolution course (Organismic Biology, Ecology, and Evolution 122, 128, or 130); one field quarter course involving research in plant biology (Organismic Biology, Ecology, and Evolution 118, 124, 128, or 148) or a laboratory internship (Organismic Biology, Ecology, and Evolution 190 series or 199) which requires a written paper on some aspect of plant research; two additional upper division courses in chemistry, computer science, geography, microbiology, molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 193), or organic biology, ecology, and evolution (except Organismic Biology, Ecology, and Evolution 192, 199). A maximum of 8 units of the Organismic Biology, Ecology, and Evolution 190 series or 4 units of Organismic Biology, Ecology, and Evolution 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses applied toward requirements for preparation for the major and the major must be taken for a letter grade. Plant 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.

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 occurs during Spring Quarter and involves some combination of Organismic Biology, Ecology, and Evolution 103, 113B, 114, C115, 118, 124, C125, C126, 131, 132, and 134B. The Marine Biology Quarter occurs during Fall Quarter and includes some combination of Organismic Biology, Ecology, and Evolution 102, C104, 106, 123, 147, 148, 163, 164, and 165. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview during Fall or Winter Quarter. 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 Organismic Biology, Ecology, and Evolution 190A and 190B.

Computing Specialization

Majors in Biology, Ecology, Behavior, and Evolution, Marine Biology, and Plant 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 M196B, Geography 168, Organismic Biology, Ecology, and Evolution C159, 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.

Graduate Study

Official, specific degree requirements are detailed in *Program Requirements for UCLA Graduate Degrees*, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Organismic Biology, Ecology, and Evolution offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Biology.
Organismic Biology, Ecology, and Evolution

Lower Division Courses

10. Plants and Civilization. (4) Lecture, three hours; demonstration, one hour. Designed for nonmajors. Origin of crop plants; man’s role in development, distribution, and modification of food, fiber, medicinal, and other plants in relation to their natural history. P/NP or letter grading.

11. Biomedical Research Issues in Minority Communities. (5) Discussion, four hours. Limited to 30 students. Discussion and student presentations on biomedical research as it affects minority communities, with emphasis on methodology, design, consequences, and ethics of current research. Discussion leaders provide information on preparation and training for research careers. P/NP or letter grading.

12. Biodiversity and Extinction: Crisis and Conservation. (4) Lecture, three hours; discussion, one hour. Examination of ecological and evolutionary principles necessary to understand nature and importance of worldwide environmental crisis. Research by students of specific conservation issues and presentation of results to class. P/NP or letter grading.

13. Evolution. I. Life. (3) Lecture, three hours; discussion, one hour. Not open to life sciences majors. Limited to 100 students. Introduction to biology within framework of evolutionary theory. Relationships of evolutionary thought to other areas of knowledge and society. Natural selection and origin of variation examined in context of genetics, molecular biology, physiology, phylogeny, population dynamics, behavior, and ecology. Emphasis on critical role of historical processes. P/NP or letter grading.

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. Marine Biology. (5) Lecture, three hours; discussion, two hours; field trips, two hours. Not open for credit to students with credit for Earth 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.

97. Selected Topics in Organismic Biology, Ecology, and Evolution. (1 to 4) Seminar, one to three hours. Current issues in research in organismic biology, ecology, and evolution. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

Upper Division Courses

100. Introduction to Ecology and Behavior. (5) Lecture, three hours; discussion, two hours. Required: Life Sciences 1. Not open for credit to students with credit for course 118, 119, 122 through C126, 129, 131 through 134B, 136, C151A, C151B, 154, M189A, or M189B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities and ecosystems, biogeography, and behaviors animals use to find food, defend territory, and mate. Understanding scientific method, critical evaluation of research papers, and development of scientific writing skills. Letter grading.

101. Marine Botany. (6) (Formerly numbered 101A.) Lecture, four hours; laboratory, six hours; three to four field trips. Required: Life Sciences 1. Introduction to biology and ecology of marine plants, including algae, sea grasses, and mangroves, with focus on form and function of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. Plant Evolution and Systematics. (5) Lecture, two hours; laboratory, 12 hours. Required: Life Sciences 1. Advanced treatment of phylogeny, behavior, and ecology of invertebrates, with emphasis on independent laboratory and field investigations. Concurrently scheduled courses C211, C212.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory/field trips, six hours. Required: Life Sciences 1. Introduction to systematics, evolution, natural history, morphology, and physiology of invertebrates.

106. Experimental Marine Invertebrate Biology. (4 or 6) Lecture, two hours; laboratory, 12 hours. Required: life Sciences 105, and M166 or 167 (either may be taken concurrently). Offered either as a 4-unit quarter-long course or as a 4-unit Marine Biology Quarter course. Advanced course of natural history, physiolog, biochemistry of invertebrates, with emphasis on independent laboratory and field investigations.

107. Evolution, Development, and Function of Invertebrate Animals. (6) Lecture, three hours; laboratory, three hours; three-weekend field trips. Required: course 105 or completion of Marine Biology Quarter. Advanced invertebrate biology course exploring evolutionary relationship of animal groups and evolution of marine species, comparative development, developmental genetics of invertebrate form, and form and function as they relate to marine invertebrates. Concurrently scheduled with course C207. Letter grading.


117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Required: course 110. Recommended: one general geology course. Fossil record of the 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. Preparation: completion of preparation for the major courses. 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 environment using community, population, and ecophysiological levels of integration.


119L. Mathematical Ecology Laboratory. (2) Laboratory, two hours. Corequisite: course C119. Formal instruction in Mathematica software used to provide powerful and versatile tool to solve diverse quantitative problems in ecology and life and physical sciences. Concurrently scheduled with course C219L. Letter grading.


121. Molecular Biology and Evolution. (4) Lecture, three hours; discussion, one hour. Required: Life Sciences 3. 4. Molecular biology, with emphasis on evolutionary aspects. DNA replication, RNA transcription, protein synthesis, gene expression, and molecular evolution. Letter grading.
122. Ecology. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1, Mathematics 13, and Mathematics 31B, 32A. Designed for departmental majors specializing in environmental and population biology. Introduction to population and community ecology, with emphasis on growth and distributions of populations, interactions among species, and evolutionary processes in natural and experimental systems. Concurrently scheduled with course C221. Letter grading.

123. Marine Ecology. (4 or 8) Lecture, five hours; laboratory, 15 hours. Concurrently required requisite: course 122. Offered either as a 4-unit quarter-long course or as a 4-unit five-week intensive course given off campus as part of Marine Biology Quarter. Survey of current topics, including marine ecosystems and the influence of physical and biological factors on community organization. Elements of marine science center. Letter grading.


131. Insect Ecology. (4 or 8) Lecture, two hours; laboratory or field trip, eight hours. Requisite: Life Sciences 1. Recommended: courses 120, 122. Offered either as a 4-unit quarter-long course with weekend field sessions or as an 8-unit Field Biology Quarter course with weekend field sessions. Analysis of ecological roles of insects in terrestrial communities, with emphasis on interactions between plants and vertebrates. Group and individual field projects. Letter grading.

132. Field Behavioral Ecology. (8) Lecture, two hours; laboratory/field trip, 10 hours. Requisite: Life Sciences 1. Recommended: course 129. Five-week quarter-long 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.

C125. Tropical Animal Communication. (4 or 8) Requisite: Life Sciences 1. Offered either as a 4-unit quarter-long course or as an 8-unit Field Biology Quarter course. Four-unit course has lecture, three hours; discussion, two hours. Animal communication behavior, tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers same basic lecture material in five or six intensive weeks, followed by extended field trips where students carry out supervised research projects. Letter grading.

C126. Behavioral Ecology. (4 or 8) Requisites: course 120 or 122 or 129, Life Sciences 1, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A. Offered either as a 4-unit quarter-long course or as an 8-unit Field Biology Quarter course. Four-unit course has lecture, three hours; discussion, three hours. Animal communication behavior, island biogeography, and evolution of communication in long-distance animal signaling. Eight-unit course covers same basic lecture material in five intensive weeks, followed by extended field trip where students carry out supervised research projects. Letter grading.

M127. Soils and Environment. (5) (Same as Environment M127 and Geography M127.) Lecture, five hours; discussion, one hour; field trips. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 20AL. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. Letter grading.

128. Plant Physiological Ecology. (5) Lecture, three hours; laboratory, three hours; one two-day field trip. Requisites: Life Sciences 1, Physics 1C and 4BL, or 6C or 6CH. Study of plant/environment interactions under natural conditions. Transpiration and photosynthesis, light, temperature, and water relations in soil/plant/terrestrial atmosphere continuum. Letter grading.

129. Animal Behavior. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 4. Introduction to behavioral ecology. Methods and results of evolutionary studies of behavior, including foraging strategies, social competition, sexual selection, mating systems, cooperation, and social organization.

M139. Introduction to Chemical Oceanography. (4) (Same as Atmospheric Sciences M105.) Lecture, three hours. Introductory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and natural of physical, chemical, and biological processes governing this composition in the 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 processes, remineralization, major and minor elements. Letter grading.

CM145. Advanced Paleontology. (4) (Same as Earth and Space Sciences CM118.) Lecture, three hours. Requisite: course 110 or 117 or Earth 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 isotope, functional morphology, phylogenetics, and developmental biology. Concurrently scheduled with course CM245. P/NP or letter grading.

146. Physicochemical Biology. (4) Lecture, three hours; laboratory, 15 hours. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL, Life Sciences 1, 3. Lectures include physical, chemical, and biological factors affecting abundance and distribution of organisms in marine environment. Laboratory includes experimental studies of local marine organisms, with emphasis on primary and secondary production and nutrient flux. Letter grading.


C151A. Tropical Ecology. (4) Requisite: Life Sciences 1. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of a range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal communities, herbivory, forest dynamics, and disturbance regimes. Concurrently scheduled with course C221A. P/NP or letter grading.

C151B. Field Tropical Ecology. (8) Requisite: Life Sciences 1. Two weeks of off-campus research projects followed by two-week lecture course and off-campus work as part of Field Biology Quarter. Introduction to biodiversity, community structure, and dynamics and ecosystem function in a tropical forest habitat. Concurrently scheduled with course C221B. P/NP or letter grading.

152. Functional Plant Anatomy. (5) Lecture, three hours; laboratory, three hours. Requisites: Life Sciences 1, 2, 3, 4. Structure and functional significance of various cell and tissue types in higher plants, plus patterns of growth and differentiation in roots, stems, leaves, flowers, and fruits. P/NP or letter grading.

154. California Ecosystems. (5) Lecture, three hours; laboratory or field trip, four hours. Requisite: Life Sciences 1. 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.
157. Functional Integrated Histology. (6) Lecture, three hours; laboratory, four hours. Requisites: Chemistry 14CL or 30AL, Biophysics 1C or 1CL, 2, 3, 4. Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Structure and function of cell and extracellular matrix as basic building blocks of tissues and organs, structural specializations of cells and their interactions in forming four basic tissues, how cells and tissues are structurally and functionally linked in organs. Letter grading.

M158. Cell Biology. (6) (Same as Biochemistry 158) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 1A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL. Life Sciences 1, 2, 3, 4. Cell biology of eukaryotic cells, with emphasis on correlation of structure of the cell, molecular, organellar, and cellular levels. Letter grading.

C159. Computational Biology. (4) Lecture, three hours; laboratory, one hour. Requisites: Life Sciences 1, 4. Introduction to computational biology. Topics include statistical and mathematical reasoning, computer simulation, use of Internet for remote databases, and connections to supercomputers, with emphasis on bioinformatics and individual or group projects. Concurrently offered as course C275.

162. Plant Physiology. (5) Lecture, four hours; laboratory, four hours. Requisites: Life Sciences 1, 2, 3, 4. Basic aspects of plant function, including photochemical, biochemical, and physiological aspects of photosynthesis, Calvin carbon metabolism and its regulation; organellar interactions and compartmentation. Water relations, ion transport, flowering, hormone action, and plant responses to stress. Letter grading.


165. Ecological Physiology of Marine Vertebrates. (4) Five-week intensive course. Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 14B and 14BL, or 20B and 30AL, Life Sciences 1, 3. Recommended: Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Introduction to physiological adaptations of marine vertebrates to major physico-chemical variables in the oceans of the world and to major marine habitats. Given off campus at a marine science center. Letter grading.

M166. Animal Physiology. (6) (Same as Physiological Science M166) Lecture, three hours; laboratory, five hours. Requisites: Chemistry 14B and 14BL, or 20B and 30AL, 15SA, Life Sciences 1, 2, 3, 4. Physics 1C and 4BL, or 6C or 6CH. Not open for credit to students with credit for course M167 or 168. Recommended: course M166. Introduction to the study of the physiology of animals and animal systems. Letter grading.

170. Animal Environmental Physiology. (6) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 4, Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Not open for credit to students with credit for course M167 or 168. Designed for Ecologists, Evolution majos. Introduction to physiology (function) of animals' organs and organ systems, with emphasis on environmental interactions and ecological adaptations. Letter grading.

173. Anatomy and Physiology of Sense Organs. (4) (Same as Physiological Science M173) Lecture, three hours; discussion, one hour. Requisites: Molecular, Cell, and Developmental Biology 171 (or Physiological Science 111A) or M175A and M175B (or Physiological Science M180A and M180B). Structure and function of sense organs. Adoption of quantitative and comparative approach to provide insight into evolution of sense organs in both invertebrates and vertebrates. Letter grading.

179. Comparative Endocrinology. (4) Lecture, three hours; discussion, two hours. Recommended course: 156E or 170 or Molecular, Cell, and Developmental Biology 138. In-depth treatment of basic principles of endocrinology; with emphasis on physiological endocrinology. Examples from both invertebrates and vertebrates. Letter grading.

181. Parasitology. (6) Lecture, three hours; laboratory, six hours. Requisites: Life Sciences 1, 3. Introduction to principles, biology, and evolution of infectiousness, symbiosis, and parasitism, emphasizing protozoan and helminth parasites, including those of man. Letter grading.

182. Field Community and Population Ecology. (4) Lecture, five hours; field study, seven hours. Corequisites: courses 183, 184, 199. Introduction to experimental field research, with emphasis on investigating communities and populations of native plants and animals to reveal their structures, their relationships to individual members, and environmental factors in their success and limitation. Given off campus as part of UC Environmental Biology Superse. Letter grading.

183. Applied Conservation Biology. (4) Lecture, five hours; field study, seven hours. Corequisites: courses 182, 184, 199. Introduction to complexities and realities of natural resource exploitation and preservation, with emphasis on trade-offs between economic benefits and ecosystem stability and sustainability. Given off campus as part of UC Environmental Biology Superse. Letter grading.


188. Seminar: Biology and Society. (2) Investigations and discussions of current socially important issues involving substantial biological considerations, either or both as background for policy and as consequences of policy. May be repeated once for credit.
Graduate Courses

M200A. Evolutionary Biology. (4) (Same as Earth and Space Sciences M216.) Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical biogeography, adaptation, radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

200B. Ecology, Behavior, and Functional Ecology. (4) Lecture, two hours; discussion, two hours. Prerequisites and topics: behavioral ecology, plant and animal physiology. Topics may include island biogeography, habitat selection, community structure, disturbance ecology, life history evolution, social behavior, sexual selection, foraging theory, energetics, photosynthesis, water relations, chemical ecology, endocrinology, physiological ecology, and adaptional biology. 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 invertebrates. Emphasis on physiological ecology and biochemistry. Techniques in culture and physiological, ecological, and biochemical investigation of algae. Given off campus at a marine science center.

204. Advanced Biology of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental phycology. Topics include discussion of appropriate aspects of chemical and physical marine environment, algae physiology, algal physiology, biochemical, physiological ecology, and algal processes in ocean and freshwater habitats.

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 the living animal and its habitat. Given off campus at a marine science center.

206. Advanced Ichthyology. (4) Lecture, three hours; laboratory, three hours; discussion, one hour. Requisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit.

207. Evolution, Development, and Function of Invertebrate Animals. (6) Lecture, three hours; laboratory, three hours; three weekend field trips. Requisite: course 105 or completion of Marine Biology Quarter. Advanced invertebrate biology course exploring evolutionary relationship of animal groups and evolution of marine species, comparative developmental and developmental genetics of invertebrate form, and form and function as they relate to marine invertebrates. Concurrently scheduled with course C107. Letter grading.

208. Advanced Vertebrate Morphology. (4) Lecture, two hours; laboratory, eight hours. Requisite: course 110. Topics in functional and behavioral aspects of vertebrate locomotor feeding, and circulatory systems. Laboratory includes comparative and experimental analyses of morphological adaptation. Independent project required. May be repeated once for credit.

209. Behavior of Arthropods. (4) Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive, and social behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.

210. Advanced Ornithology. (4) Lecture, two hours; laboratory, two hours; fieldwork, two hours. Requisite: course 114. Advanced study of topics in modern avian biology. Emphasis on experimental approaches to investigation of topics such as reproduction, behavior, evolution, and community structure. S/U or letter grading.

212. Experimental Invertebrate Zoology. (6) Lecture, two hours; laboratory, 12 hours. Requisite: Life Sciences 1. Advanced treatment of physiology, behavior, and ecology of invertebrates, with emphasis on independent laboratory and field investigations. Concurrently scheduled with course C104.


214. Physiological Ecology of Desert Animals. (5) Lecture, three hours; laboratory, two hours; discussion, one hour. Topics in physiological ecology and evolution of desert organisms. 1. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival in an arid habitat. Concurrently scheduled with course C134A. Letter grading.


216. Statistical Methods for Life Sciences. (4) (Same as Statistics M251.) Lecture, three hours. Requisite: Statistics 13. Fundamentals of statistics as applied in life sciences, including statistical inferences for continuous and categorical data (estimation, testing of means and proportions, ANOVA study design, linear regression, and introduction to principle components analysis. Methods to be implemented on computer with SAS. Concurrently scheduled with course C135. Letter grading.

217. Marine Ecology. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Structure, diversity, and energetics of marine communities; behavior, population dynamics, and biogeography of component species; associated oceanography and geology. Given off campus at a marine science center.

218. Oceanology. (4) Lecture, four hours; discussion, one hour. Requisite: advanced graduate students. Ecology and dynamics of pelagic and benthic associations; physicochemical properties of seawater and marine substrates and their biological significance; qualitative and quantitative methods of oceanology. Given off campus at a marine science center.


219L. Mathematical Ecology Laboratory. (2) Laboratory, two hours. Corequisite: course C219. Formal instruction in Mathematica software used to provide powerful and versatile tools for investigating wide variety of substantive problems in ecology and life and physical sciences. Concurrently scheduled with course C119L. Letter grading.

C221A. Tropical Ecology. (4) Requisite: Life Sciences 1. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of a range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal communities, herbivory, forest dynamics, and disturbance. Concurrently scheduled with course C151A. S/U or letter grading.

C221B. Field Tropical Ecology. (8) Requisite: Life Sciences 1. Two weeks of off-campus research projects followed by two-week lecture course and offered as part of the quarter-long course. Concurrently scheduled with course C151B. S/U or letter grading.


C225. Tropical Animal Communication. (4 or 8) Requisite: Life Sciences 1. Offered either as a 4-unit quarter-long course or as an 8-unit Field Biology Quarter course. Concurrently scheduled with course C104. Discussion, three hours; laboratory, two hours. Animal communication behavior, tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers basic lecture for six intensive weeks, followed by extended field trips where students do individual projects in animal communication. Concurrently scheduled with course C125. S/U or letter grading.

C227. Behavioral Ecology. (4 or 8) Requisites: course 120 or 122 or 129, Life Sciences 1, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A. Offered either as a 4-unit quarter-long course or as an 8-unit Field Biology Quarter course. Concurrently scheduled with course C104. Discussion, three hours; discussion, three hours. Animal communication behavior, island biogeography, and evolution of social behavior. Eight-unit course covers same basic lecture material in five intensive weeks, followed by extended field trip where students do individual projects in behavioral ecology. Concurrently scheduled with course C125. S/U or letter grading.

M231. Molecular Evolution. (4) (Same as Earth and Space Sciences M217.) Lecture, two hours; discussion, two hours. Series of advanced topics in molecular evolution, with special emphasis on molecular phylogenetics. Topics may include: genome structure, 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.

232. Advanced Ecology. (4) Lecture, three hours; discussion, one hour; field trip, three hours. Requisite: course 122. Concepts and topics in ecology, evolutionary or behavioral ecology, or theoretical ecology. Topics vary from year to year and may include island biogeography, tropical biology, biodiversity, modeling in ecology, habitat selection, community structure and organization, and ecology and evolution of reproductive rates. May be repeated for credit. S/U or letter grading.


240. Physiology of Marine Animals. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory studies on cellular, tissue, organ, and animal physiology; regulatory biology; metabolic characteristics of cells, energy transformations. Given off campus at a marine science center.

243. Animal Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C or 32A, and Physics 1C and 4BL, or 6C or 6CH. Physical properties of animal signals and physiological mechanisms behind their generation and reception. Lectures treat signal analysis, signal transmission, and receptor design in light of constraints placed on each of the sensory modalities. Examples of communication systems using visual, auditory, chemical, electrical, and magnetic cues, with emphasis on biological adaptations for efficiently signaling species-specific information. S/U or letter grading.

244. Advanced Insect Physiology. (4) Lecture, two hours; laboratory, for first term. Metabolic and functional expression of current problems in insect physiology, with advanced laboratory. S/U or letter grading.

245. Advanced Paleontology. (4) (Same as Earth and Space Sciences CM218B.) Lecture, three hours. Requisite: course 110 or 117 or Earth 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. Concurrently scheduled with course CM145. S/U or letter grading.

247. 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 for graduate students. Phylogenetic analysis of plants 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.

251. Seminar: Systematics. (2) Discussion, two to four hours. Current topics in systematic biology, including methods development and specific applications in study of phylogeny. Theme varies from year to year. May be repeated for credit.


255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

259. Seminar: Herpetology. (2) Discussion, three hours. Seminar on current approaches to herpetology. Major theme varies from year to year in areas such as biogeography, ecology, behavior, environmental physiology.


263. Seminar: Population Genetics. (2 or 4) Discussion, three to six hours. Seminar on topics of current interest in population genetics, such as kin selection, sociobiology, cultural evolution, conservation genetics, etc.

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.

265. Seminar: Biophysical Plant Ecology. (2) Seminar, two hours. Requisite: course 162. Interactions between species supplemented by a survey of results printed in the literature, especially those derived using more advanced methods. Concurrently scheduled with courses CM189A-CM189B.


270. Seminar: Environmental Physiology. (2) S/U grading.


273. Seminar: Entomology. (2) 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. Computational Biology. (4) Lecture, three hours; laboratory, one hour. Requisites: Life Sciences 1A, 1B, or 11A. Introduction to computational biology. Topics include statistical and mathematical analysis, computer simulation, use of Internet for remote databases, and connection to supercomputers, with emphasis on biological applications and individual or group projects. Concurrently scheduled with course C159.

279. Seminar: Evolutionary Biology. (2) Seminar, two hours. Requisite: course M231. Emphasis on a 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) 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.

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 biologists 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.

CM295A-CM295B. Theoretical Behavioral Ecology. (4-4) (Same as Anthropology CM289A-CM289B) Lecture, three hours. Preparation: one upper division introduction to behavioral ecology course, one university-level mathematics course (preferably calculus or probability and statistics). Course CM295A is requisite to CM295B. Students expected to do simple algebra, elementary calculus, and probability. A rich body of mathematical theory describing the evolution of animal behavior exists. Introduction to this body of theory at a pace and mathematical level that allows students to grasp this information. Within each area of theory (e.g., kin selection, optimal foraging theory, etc.), presentation of basic corpus of models so that students understand assumptions that underlie the models, and how main results are derived. Presentations supplemented by a survey of results printed in the literature, especially those derived using more advanced methods. Concurrently scheduled with courses CM189A-CM189B.

296. Seminar: Integrative Biology — Cellular, Organismic, and Population. (1 to 4) Discussion, 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 grading.

297. Selected Topics in Organismic Biology, Ecology, and Evolution. (1 to 4) Seminar, one to three hours. Advanced study and analysis of variable research topics in research issues in organismic biology, ecology, and evolution. 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.

315. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. 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) 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.

595. 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 a marine science center.
Organizational Studies

Interdepartmental Program
College of Letters and Science

UCLA
4269A Bunche Hall
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fax: (310) 825-0778
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Eric H. Monkkonen, Ph.D., Chair

Faculty Advisory Committee
Bryan C. Ellickson, Ph.D. (Economics)
Oscar Grusky, Ph.D. (Sociology)
Eric H. Monkkonen, Ph.D. (History), Chair

Scope and Objectives

Organizations are multifaceted and can usefully be explored from more than one disciplinary perspective. The undergraduate specialization in Organizational Studies brings together students and faculty from the Departments of Economics, Geography, History, Political Science, Psychology, and Sociology who share an interest in modern organizations. The program gives students a solid grounding in the organizational perspectives and methods of at least two departments. The specialization must be taken in conjunction with a major in the social sciences.

Undergraduate Study

Organizational Studies Specialization

Students may elect to combine the Organizational Studies specialization with a departmental major and may petition to have the area of specialization recognized with the bachelor’s degree.

The option of completing an individual major in Organizational Studies is also open to qualified students. For more information on individual majors, see the College of Letters and Science section of this catalog.

Students with a departmental major should seek advising in their major department. Those interested in the individual major should consult a Letters and Science counselor.

Courses within the specialization must be taken for a letter grade. The specialization must be taken in conjunction with a major in the division of social sciences.

Preparation for the Specialization

Required: At least five of the following courses appropriate to the courses to be taken in the specialization: Economics 1, 2; Geography 4; Psychology 10; Sociology 1, or M18 and 104 or equivalent.

Upper Division Requirements

Required: Nine upper division courses, including (1) at least three courses outside the major department selected from Management 190, Political Science 146D, Sociology 168, 173; (2) a minimum of three courses selected from one of the following suites within the major department: Economics 147A, 147B, 170, 171; Geography 148, M149; Political Science 141C, 142A, 142B, 146E; Psychology 135; Sociology 132, 135, 156, 182; (3) a minimum of three courses selected from one of the suites in item 2 in a department outside the major department; (4) internship experience in a governmental or service organization.

For further information, contact the political science undergraduate counselor in the program office.

ORTHOPAEDIC SURGERY

David Geffen School of Medicine

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76-134 Center for the Health Sciences
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(310) 794-7930
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http://www.medsch.ucla.edu/public/deptlist.htm

Chair
Gerald A.M. Finerman, M.D.

Scope and Objectives

The medical student program in orthopaedic surgery is designed to provide experience in understanding the diagnosis and management of disorders of the musculoskeletal system. Through a combination of didactic instruction and supervised clinical experience, students acquire the clinical skills of history taking and physical examination of the musculoskeletal system. Diagnosis and orthopaedic management of bone and soft tissue trauma, skeletal development defects, tumor, spinal disorders, hand and foot disorders, and arthritis are primary objectives. Third-year students work in ambulatory clinics and on inpatient services during their core surgical clerkship. Fourth-year electives provide the opportunity for in-depth experience on rotations at the 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 further details on the Department of Orthopaedic Surgery and a listing of the courses offered, contact the chair’s office at (310) 794-7930.

PATHOLOGY AND LABORATORY MEDICINE

David Geffen School of Medicine

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Jonathan Braun, M.D., Ph.D., Chair

Professors
Anthony Adinolfi, Ph.D.
Sanford H. Barsky, M.D.
Linda G. Baum, M.D. Ph.D.
Judith A. Berliner, Ph.D., in Residence
Jonathan Braun, M.D., Ph.D.
Michael Cecka, Ph.D.
Alistair J. Cochran, M.D., in Residence
Kenneth Dorshkind, Ph.D.
Thomas A. Drake, M.D.
Rita B. Effros, Ph.D., in Residence (Elizabeth and ThomasPlot Professor of Gerontology)
Michael Fishbein, M.D.
Tomas Ganz, M.D.
Richard A. Gatti, M.D., in Residence
David W. Gjertson, M.D.
Wayne W. Grody, M.D., Ph.D., in Residence
Oliver Hankinson, Ph.D.
Lee H. Hilbom, M.D.
Klaus J. Lewin, M.D.
Faramarz Naeim, M.D., in Residence
Aarno Palotie, M.D., Ph.D.
Elaine F. Reed, Ph.D.
Jonathan Said, M.D.
Robert H. Schiestl, Ph.D.
Robert Strieter, M.D.
Harry V. Vinters, M.D.
Elizabeth A. Wagars, M.D.

Professors Emeriti
Marcel A. Baluda, Ph.D.
Walter F. Coulson, M.D.
Robert Y. Foos, M.D.
Harrison Lattia, M.D.
Donald E. Paglia, M.D.
Lawrence D. Petz, M.D.
David D. Porter, M.D.
George S. Smith, M.D.
Julien L. Van Lancker, M.D.
M. Anthony Verity, M.D.
Roy L. Walford, M.D.

Associate Professors
Scott H. Binder, M.D.
David A. Bruckner, Sc.D.
David Chia, Ph.D.
Ben J. Glasgow, M.D.
Sharon L. Hirschowitz, M.D.
Scott D. Nelson, M.D.
Nagesh Rao, Ph.D., in Residence
Nora Rozengurt, Ph.D.
Steven K. Takemoto, Ph.D.

Assistant Professors
Sophia K. Apple, M.D.
Anthony Butch, Ph.D., Clinical
Galen Cortina, M.D., Ph.D.
Sarah M. Dry, M.D.
Graduate Degrees

Medicine offers Master of Science (M.S.) and the Department of Pathology and Laboratory Medicine programs.

Scope and Objectives

Pathology is, by definition, the science of disease. Its main purpose is to unravel disease mechanisms. Without it, progress in prevention, diagnosis, and therapy are left to chance. Yet, among medical disciplines, it is one of the youngest because scientific concepts of disease, based on direct observation of diseased organs, developed only in the last 150 years.

Once normal molecules, cells, and organs have been damaged, the result of the injury manifests itself by distortions of behavior at the molecular, cellular, and organ levels. The study of these injuries and reactions to injuries constitutes a body of knowledge well worth mastering for its own sake. Students, however, must also learn to use the existing tools or develop the new tools needed to dissect the events that follow injury. Although education in methodology is not, in principle, different in pathology from that in all other biomedical sciences, it is very different in scope.

A combined education in breadth and depth is indispensable; it is this education, as it is applied to injuries and reaction to injuries, that is the goal of the Ph.D. program in Cellular and Molecular Pathology.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gradnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Cellular and Molecular Pathology.

Pathology and Laboratory Medicine

Upper Division Courses


199. Special Studies. (2 to 6) Supervised laboratory research, 10 hours minimum. Students select instructor among eligible research faculty and carry out independent laboratory research project under instructor supervision. P/NP or letter grading.

Graduate Courses

200A. Dental Pathology. (3) Lecture, 90 minutes; laboratory, three hours. Fundamental causes of disease processes, using as examples selected lesions or diseases of major organ systems. P/NP or letter grading.

205A-205B. Gross and Developmental Anatomy for Medical Students. (5-5) (Formerly numbered Orthopaedic Surgery 205A-205B.) Lecture/laboratory, three four-hour sessions (16 weeks beginning in August). Designed for medical students. Open to nonmedical students with consent of instructor. Gross anatomy, embryology, and radiological anatomy of the human body as taught by lectures, demonstrations, and dissections. S/U or letter grading.

205A. Limbs, Thorax, and Abdomen (first eight weeks); 205B. Pelvis, Head, and Neck.

207. Gross and Developmental Anatomy for Graduate Students. (12) (Formerly numbered Orthopaedic Surgery 207.) Lecture/laboratory, three four-hour sessions (16-week semester). Gross anatomy, embryology, and radiological anatomy of the human body as taught by lectures, demonstrations, and dissections. Trunk and extremities; head and neck. Letter grading.


231A. Pathological Anatomy and Physiology. (6) Lecture, two hours; discussion, six hours; laboratory, four hours; other, six hours. Preparation: completion of curriculum satisfying basic requirements for study of human pathology. Designed for graduate students. Lectures, demonstrations, and individual study of a student loan collection of microscopic slide preparations and of specimens from recent autopsies. Kodalchome photomicrographs and projection of microslides. Concentration in area of general pathology. Letter grading.


M327. Molecular and Cellular Foundations of Disease. (4) (Same as Biological Chemistry M327.) Lecture, two hours; discussion, two hours. Preparation: one course each in molecular biology, cell biology, and biochemical chemistry. Discussion of key issues in disease mechanisms, with emphasis on experiments leading to an understanding of these mechanisms. Identification of important questions still remaining unanswered. S/U or letter grading.

238. Histology and Pathology for Graduate Students. (2) Laboratory, two hours. Designed for UCLA ACCESS or Cellular and Molecular Pathology Ph.D. students. Basic introductory knowledge of normal tissue, pathologic processes, and animal models as observed by light microscopy. Letter grading.

255. Mapping the Human Genome. (3) Lecture, 90 minutes; discussion, 90 minutes. Basic molecular genetic and cytogenetic techniques of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localizations of disease genes. S/U or letter grading.

256. Seminar: Viral Oncology. (2) Formerly numbered M256. Seminar, two hours. Advanced research seminar designed to consider current developments in the field. Selection of current subjects and publications dealing with tumor viruses, oncogenesis, development, and cellular regulation. S/U or letter grading.

M257. Introduction to Toxicology. (4) (Same as Pharmacology M257.) Requisites: Pharmacology M241. Biochemical and systemic toxicology, basic mechanisms of toxicity, and interaction of toxic agents with specific organ systems.

M258. Pathologic Changes in Toxicology. (4) (Same as Pharmacology M258.) Designed to give students experience in learning normal histology of tissues which are major targets of toxin and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system).


294L. Cancer Histopathology Laboratory. (2) (Formerly numbered M294L.) Lecture, one hour; laboratory, two hours. Requisites: course 294, Biological Chemistry CM253, CM267, and Microbiology M229 or Neurobiology M200B. Histopathological approach to cellular or tissue alterations commonly observed in tumor progression. Introduction to characteristics that clearly distinguish between benign and malignant neoplasia, precancerous stages, carcinoma in situ, and frankly invasive and metastatic neoplasia. Letter grading.


596. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Individual research with members of the staff or other departments, the latter for purpose of supplementing programs available in department. S/U grading.


Pediatrics

David Geffen School of Medicine

UCLA
12-335 Davies Children's Center
Box 951752
Los Angeles, CA 90095-1752
(310) 825-4128
fax: (310) 794-5200
http://www.pediatrics.medsch.ucla.edu

Chairs
Edward R.B. McCabe, M.D., Ph.D., Executive Chair
Stephen A. Feig, M.D., Executive Vice Chair
Sherin Devaskar, M.D., Vice Chair, Research
Robert B. Ettinger, M.D., Vice Chair, Clinical Affairs
Thomas S. Kitzmiller, M.D., Ph.D., Vice Chair, Academic Affairs
Stuart Slavin, M.D., Vice Chair, Medical Education
Adam J. Jonas, M.D., Chair, Harbor-UCLA
Mohammed Malekzadeh, M.D., Chair, Olive View-UCLA
David L. Rimoin, M.D., Ph.D., Chair, Cedars-Sinai
Betti Jo Warren, M.D., M.D., Interim Chair, King/Drew

Scope and Objectives
The Department of Pediatrics encompasses five teaching hospitals: Mattel Children's Hospital at UCLA and Olive View-UCLA, Harbor-UCLA, King/Drew, and Cedars-Sinai Medical Centers. The clinical program and teaching activities of the UCLA Medical Center are integrated with the Olive View-UCLA Medical Center. In the fundamentals of clinical medicine course, medical students receive detailed instruction in the techniques of the clinical examination of pediatric patients.

The required six-week clinical clerkship in pediatrics can be taken in any of the four programs (Mattel/Olive View-UCLA, Cedars-Sinai, Harbor-UCLA, King/Drew). In-depth electives in the Department of Pediatrics are listed in the School of Medicine Handbook of Clinical Courses, as are the advanced clinical clerkships.

For further details on the Department of Pediatrics and a listing of the courses offered, see http://www.peds.medsch.ucla.edu.

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 the 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

Pharmacy

College of Letters and Science

UCLA
321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451
(310) 825-4641
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http://www.humnet.ucla.edu/humnet/phil/

Calvin G. Normore, Ph.D., Chair

Professors
Joseph Almog, D.Phil.
Tiler Burge, Ph.D.
John P. Carriero, Ph.D.
Brian P. Copenhaver, Ph.D.
Barbara Herman, Ph.D. (Gloria and Paul Griffin Professor of Philosophy)
David B. Kaplan, Ph.D. (Hans Reichenbach Professor of Scientific Philosophy)
Gavin Lawrence, D.Phil.
D. Anthony Martin
Calvin G. Normore, Ph.D
Terence Parsons, Ph.D.

Professors Emeriti
Marilyn McCord Adams, Ph.D.
Robert Merrhew Adams, Ph.D.
Keith S. Donnellan, Ph.D.
Philippa Foot, M.A.
Herbert Morris, Ph.D.
Robert M. Yost, Ph.D.

Associate Professor
Seana Shtruffin, D.Phil.

Assistant Professors
Pamela Hieronymi, Ph.D.
Sean A. Kelsey, Ph.D.
Abraham S. Roth, Ph.D.
Michael A. Thau, Ph.D.

Adjunct Professor
Richard Popkin, Ph.D.

Scope and Objectives

In a recent survey conducted by the Conference Board of the Associated Research Councils, UCLA’s Philosophy Department was judged among the six best in the nation in terms of the quality of its faculty. It offers programs leading to the Bachelor of Arts and Ph.D. degrees.

“Philosopher,” translated from the Greek, literally means “lover of wisdom.” The term has come to mean someone who seeks knowledge, enlightenment, and truth. The 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 undergraduates 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 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.

Undergraduate Study

Philosophy B.A.

Preparation for the Major

Required: Four lower division courses, including Philosophy 7 or 21, 22, 31, and one other philosophy course.

Transfer Students

To be admitted as Philosophy majors, transfer students 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.

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, in the following manner: two courses in each of three of the groups and one course in the remaining group.

Courses listed under Special Studies 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.

Undergraduate Study

Philosophy B.A.

Preparation for the Major

Required: Four lower division courses, including Philosophy 7 or 21, 22, 31, and one other philosophy course.

Transfer Students

To be admitted as Philosophy majors, transfer students with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one哲学 of mind or skepticism and rationality course, one ethical theory course, one symbolic logic course, and one additional philosophy course.

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Courses listed under Special Studies 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 both the graduate and undergraduate advisers.

Honors Program
On recommendation of the department faculty, honors in philosophy are awarded at graduation to a major whose grade-point average in upper division philosophy courses is 3.3 and who has completed two graduate courses in the 200 series (8 units) in philosophy with an average GPA of 3.5.

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.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Philosophy.

Philosophy
Lower Division Courses
1. Beginnings of Western Philosophy. (5) Lecture, three hours; discussion, one hour. Origins of Greek cosmology and philosophy, beginnings of systematic thought and scientific investigation concerning such questions as origin and nature of the material world, concept of laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heraclitus, the Pythagoreans, Parmenides, Empedocles, and Greek atomists, during first two thirds of course and on Socrates and some earlier works of Plato in last few weeks. P/NP or letter grading.

2. Introduction to Philosophy of Religion. (4) Lecture, three 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.

4. Philosophical Analysis of Contemporary Moral Issues. (5) Lecture, three hours; discussion, one hour. Critical study of principles and arguments advanced in discussions 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) Formerly numbered 5A. 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 the 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.

21. Skepticism and Rationality. (4) Lecture, three hours; discussion, one hour. Study of selected problems concerning the character and reliability of scientific understanding, such as nature of scientific theory and explanation, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at non-technical level of episodes from history of science. P/ NP or letter grading.

8. Introduction to Philosophy of Science. (5) Lecture, three hours; discussion, one hour. Study of selected problems concerning the character and reliability of scientific understanding, such as nature of scientific theory and explanation, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at non-technical level of episodes from history of science. P/ NP or letter grading.

9. Principles of Critical Reasoning. (4) Nature of arguments: how to analyze them and assess soundness of the reasoning they represent. Common fallacies that occur in arguments discussed in light of what counts as a 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).

21. Skepticism and Rationality. (4) Lecture, three 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.

22. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 22W. Recommend or required for many upper division courses in Group III. Systematic introduction to ethical theory, including discussion of egoism, utilitarianism, justice, responsibility, meaning of ethical terms, relativism, etc. P/NP or letter grading.

22W. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 22. Introduction to major ethical theories in Western thought. Examination of works of Plato, Aristotle, Hume, Kant, and Mill. Topics include ideas of virtue, obligation, egoism, relativism, deontological and consequentialist theories. P/NP or letter grading. Satisfies Letters and Science Writing II requirement. Letter grading.

31. Logic, First Course. (4) Lecture, three hours; discussion, one hour. Recommended for students who plan to pursue more advanced studies in logic. Elements of symbolic logic, sentential and quantification formal; forms of reasoning and structure of language.


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.

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.

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.

100C. History of Modern Philosophy, 1650 to 1800. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Courses 100A, 100B, and 100C should be taken in immediately successive terms if possible. Survey of development of metaphysics and theory of knowledge from 1650 to 1800, including Locke and/or Berkeley, Malebranche and/or Leibniz, and culminating in Hume and Kant. Topics may include views of these (and perhaps other) philosophers of the period on mind and body, causality, existence of God, skepticism, empiricism, limits of human knowledge, and philosophical foundations of modern science.

Group I: History of Philosophy
M101A. Plato — Earlier Dialogues. (4) Same as Classics M146A.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early and middle dialogues of Plato.

M101B. Plato — Later Dialogues. (4) Same as Classics M146B.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato.

M102. Aristotle. (4) Same as Classics M147.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle.

M103A. Ancient Greek and Roman Philosophy. (4) Same as Classics M145A.) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of the texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues.

M103B. Later Ancient Greek Philosophy. (4) Same as Classics M145B.) Lecture, three hours. Preparation: one course from 1, 100A, M101B, M102, M103A. Study of some major texts in Greek philosophy of the Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

104. Topics in Islamic Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Development of Muslim philosophy in its great age (from Avicenna to Averroes, 850 to 1200), considered in connection with Muslim theology and mysticism.

106. Later Medieval Philosophy. (4) Preparation: one philosophy course. Metaphysics, theory of knowledge, and theology of Aquinas, Duns Scotus, and Ockham, with less full discussion of other authors from the 13th through early 15th century. Selected texts read in English translation.

107. Topics in Medieval Philosophy. (4) Preparation: one philosophy course. Recommended prerequisite: 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 a 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.

C106. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes’ political philosophy, especially the Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C209.

C107. Descartes. (4) Requisites: course 21 or two philosophy courses. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C209.

C108. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. 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.

C109. Spinoza. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. 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.

C110. 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.

C111. Locke and Berkeley. (4) 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 C212. P/NP or letter grading.

C112. Hume. (4) Preparation: one philosophy course. Selected topics from metaphysical, epistemological, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C211.

C113. 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.

C114. Hume. (4) Preparation: one philosophy course. Selected topics from metaphysical, epistemological, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C212.

C115. Kant. (4) Lecture, three hours; discussion, one hour. Preparation: course 21 or 22. Study of Kant’s views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor.

C116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in 19th-century thought.

C117. Late 19th- and Early 20th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in work of one or more of following philosophers: Bolzano, Frege, Husserl, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

C118. Kierkegaard. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the text.

C119. Topics in Modern Philosophy. (4) Preparation: one philosophy course. Selected topics in one or more philosophies of the early modern period, or study in a single area such as theory of knowledge or metaphysics in several of the philosophies. May be repeated for credit with consent of instructor. Concurrently scheduled with course C219.

C120. 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.

C121. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. Requisite: course 31 or 124. Introduction to contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.

C122. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Discussion of topics in philosophy of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, explanation and prediction, nature of social laws.

C123. Philosophy of Language. (4) Requisite: course 31. Syntax, semantics, pragmatics. Semantical concept of truth, sense and denotation, synonymy and analyticity, modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor.

C124. Philosophy of Language. (4) Requisite: course 31. Course 127A is not required. Selected topics similar to those considered in course 127A, but at more advanced and technical level. May be repeated for credit with consent of instructor.

C125. Philosophy of Mathematics. (4) Requisites: courses 31, 32, and preferably one additional logic course. Philosophy of mathematics; logicism of Frege and Russell, arithmetic reduced to logic; ramified type theory and impredicative definition (Russell, Poincaré, early Weyl).


C127. Philosophy of Science. (4) Preparation: course 31. Selected topics similar to those considered in course 127A, but at more advanced and technical level. May be repeated for credit with consent of instructor.

C128. Philosophy of Science. (4) Requisites: courses 31, 32, and preferably one additional logic course. Selected topics similar to those considered in course 127A, but at more advanced and technical level. May be repeated for credit with consent of instructor.

C129. Philosophy of Psychology. (4) Lecture, three hours; discussion, one hour. Preparation: one 4-unit psychology course, one philosophy course. Selected philosophical issues arising from psychological theories. May be repeated for credit with consent of instructor. Topics may include accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theories of syntact, behaviorism, functionalism, and alternatives; physiology and psychology.

C130. Philosophy of Space and Time. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses or one philosophy course and one physics course. Selected philosophical problems concerning nature of space and time. Philosophical implications of space-time theories, such as those of Newton and Einstein. Topics may include nature of geometry, conventionalism, absolutist versus relativist views of space and time, philosophical impact of relativity theory.

C131. Science and Metaphysics. (4) Preparation: two philosophy courses. Recommended: some background in basic calculus and physics. Interpretation of some or one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, de, termination, absolute view of space, etc. May be repeated for credit with consent of instructor.

C132. Philosophy of Biology. (4) Preparation: one philosophy course. Intensive study of one or two current topics in philosophy of biology, which may include structure of evolutionary theory, biology, reductionism, concept of a biological species, and biological explanation. P/NP or letter grading.

C133. Topics in Logic and Semantics. (4) Requisite: course 22. Possible topics: formal theories and definitions, alternative theories of descriptions, many-valued logics, deviant logics.

C134. Introduction to Set Theory. (4) (Same as Mathematics M112.) Lecture, three hours; discussion, one hour. Preparation: selected topics similar to those in course 31B. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/ NP or letter grading.

C135. Metaphysics of Sentential Logic. (4) Lecture, three hours; discussion, one hour. Requisite: course 135A. Introduction to metatheory of classical sentential logic. Emphasis on fundamental metalogical ideas, including proof by induction, rigorous definition of syntactic and semantic concepts, and proof of completeness. Discussion of philosophical significance of these ideas.

C136. Modal Logic. (4) Requisite: course 135A. First course in two-term sequence (also see course 176E). Topics include various normal modal systems, derivability within the systems, Kripke-style semantics and generalizations, Lemmon/Scott completeness, incompleteness in tense and modal logic, quantification.

Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Preparation: course 22. Critical study of principles and arguments advanced in discussion of current moral and social issues. Topics similar to those in course 4, but familiarly with some basic philosophical concepts and methods presupposed. May be repeated for credit with consent of instructor.

151A-C151B-C151C. History of Ethics. (4-4-4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Each course may be taken independently, or for credit with consent of instructor. Selected Classics in Ancient Ethical Theories: Plato, Aristotle; C151B. Modern. (Formerly numbered 151B) Intensive study of Kant’s ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C245; 151C. Selected Classics of Medieval Ethics.

153A. Topics in Ethical Theory: Normative Ethics. (4) Preparation: course 22. Study of selected topics in normative ethical theory. Topics may include human rights, virtues and vices, principles of culpability and praiseworthiness (criteria of right action). May be repeated for credit with consent of instructor.

153B. Topics in Ethical Theory: Metaethics. (4) Requisite: course 22. Study of selected problems in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor.

154. Topics in Value Theory: Rationality and Action. (4) Requisite: course 6 or 7 or 22. Selected topics concerning normative issues in practical rationality or philosophy of action. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of the will, and decision theory. May be repeated for credit with consent of instructor.

155. Medical Ethics. (4) Examination of philosophical issues raised by problems of medical ethics, such as abortion, euthanasia, and medical experimentation.
C155. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: Analysis of some basic concepts in political theory may be repeated for credit with consent of instructor. May be concurrently scheduled with course C247. P/NP or letter grading.

157A-157B. History of Political Philosophy. (4-4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. May be repeated with consent of instructor. 157A. Reading and discussion of classic works in earlier political theory, especially those by Hobbes, Locke, Hume, and Rousseau. 157B. Reading and discussion of classic works in later political theory, especially those by Kant, Hegel, and Marx.

161. Topics in Aesthetic Theory. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Philosophical theories about nature and importance of art and art criticism, aesthetic experience, and aesthetic values. May be repeated for credit with consent of instructor.

166. Philosophy of Law. (4) Preparation: one philosophy course. Examination, through study of recent philosophical writings, of such topics as nature of law, relationship of law and morals, legal reasoning, punishment, and obligation to obey the law.

Group IV: Metaphysics and Epistemology

170. Philosophy of Mind. (4) Lecture, three hours; discussion, one hour. Preparation: two relevant philosophy courses. Analysis of various problems concerning nature of mind and mental phenomena, such as relation between mind and body, and our knowledge of other minds. May be repeated once for credit with consent of instructor.

172. Philosophy of Language and Communication. (4) Preparation: two relevant philosophy or linguistics courses. Theories of meaning and communication; how words refer to things; limits of meaningfulness; analysis of specific relation of everyday language to scientific discoveries.

175. Topics in Philosophy of Religion. (4) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Intensive investigation of one or two topics or works in philosophy of religion, such as attributes of God, arguments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of instructor.

176. Metaphysics of Modality. (4) Requisites: courses 31, 32. Recommended: course 136. Second course in two-term sequence (also see course 136). Metaphysical foundations of modal logic and philosophical theories about theory of modal logic. What are “possible worlds”? What is the “accessibility” relation? Is modal logic a logic or a theory? Is its focus logical or metaphysical necessity? Are the two notions really distinct? How metaphorically involved is (quantified) modal logic? What is its connection to doctrines of (1) “Haecceitism” and (2) “Aristotelian Essentialism”? P/NP or letter grading.

177A. Existentialism. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Analysis of methods, problems, and views of some of the following: Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Marcel, and Camus. Possible topics include metaphysical foundations, nature of mind, freedom, problem of self, other people, ethics, existential psychoanalysis.

177B. Historical Studies in Existentialism. (4) Preparation: one philosophy course. Study of central philosophical texts of the following: Nietzsche, Heidegger, Jaspers, Sartre, and 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: Bergson, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics include ontology, epistemology, and particularly philosophy of mind.

179. Oriental Philosophy: Buddhism. (4) Examination of central concepts and arguments in Buddhist philosophy, with emphasis on school of Mahayana Buddhism. Appropriate parallels to social concepts in the Western tradition.

182. Elements of Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Study of metaphysical questions: nature of physical world, of minds, and of universals; and answers provided by alternative systems (e.g., phenomenalism, materialism, dualism).


184. Topics in Metaphysics. (4) Requisite: course 21. Intensive investigation of one or two topics or works in metaphysics, such as personal identity, nature of dispositions, possibility and necessity, universals and particulars, causality. Topics announced each term. May be repeated for credit with consent of instructor.

185. Topics in Theory of Knowledge. (4) Requisite: course 182 or 183. Intensive investigation of one or two selected topics or works in theory of knowledge, such as priori knowledge, problem of induction, memory, knowledge as justified true belief. Topics announced each term. May be repeated for credit with consent of instructor.

187. Philosophy of Action. (4) Preparation: two philosophy courses. Study of various concepts employed in understanding human actions. Topics may include rational choice, desire, intention, weakness of will, and self-deception.

188. Philosophy of Perception. (4) Preparation: two philosophy courses. Critical study of main philosophical theories of perception and arguments used to establish them.

199. Major Philosophers of the 20th Century. (4) 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.

Special Studies

M192. Philosophical Analysis of Issues in Feminist Theory. (4) (Same as Women’s Studies M192.) Lecture, three hours. Requisite for Women’s Studies majors: Women’s Studies 10; for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by the new scholarly work on women in philosophy. Critical study of concepts and principles which arise in discussion of women’s rights and liberation. Philosophical approach to feminist theories. May be repeated for credit with consent of instructor. Letter grading.

193. Christian Ethical Thought. (4) Lecture, three hours; discussion, one hour. Reading of selected classic and contemporary authors in the Christian ethical tradition, with philosophical analysis and assessment of their views on morality and religious life.

195. 19th- and 20th-Century Religious Thought. (4) Lecture, three hours; discussion, one hour. Philosophical approach to Western religious thought of last two centuries through study of selected works by such authors as Kant, Spinoza, Schleiermacher, Kierkegaard, Butler, Camus, and Tillich.

197. Historical Studies in Existentialism. (4) Preparation: one philosophy course. Study of central philosophical texts of the following: Nietzsche, Heidegger, Jaspers, Sartre, and Camus. Emphasis on explication and interpretation of the texts. May be repeated for credit with consent of instructor.

198. 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: Bergson, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics include ontology, epistemology, and particularly philosophy of mind.

Graduate Courses

200A-200B. Seminar for First-Year Graduate Students (4-4-4) Limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics.

Group I: History of Philosophy

201. Plato. (4) Study of later dialogues.


203. Seminar: History of Ancient Philosophy. (4) Selected problems and philosophers. May be repeated for credit with consent of instructor.

206. Topics in Medieval Philosophy. (4) Study of philosophy and theology of one or several medieval philosophers such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham or study of a 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.

207. Seminar: History of Medieval and Renaissance Philosophy. (4) Selected problems and philosophers. May be repeated for credit with consent of instructor.

208. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes’ political philosophy, especially the Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C108.

220. Descartes. (4) 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.

C210. Spinoza. (4) Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is a two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students.

C211. Leibniz. (4) Selected topics in philosophy of Leibniz. May be concurrently scheduled with course C111, in which case there is a two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students.

C212. Locke and Berkeley. (4) 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.

C214. Hume. (4) Selected topics in philosophy of Hume. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114.


216. 19th-Century Philosophy. (4) Topics in 19th-century philosophy. May be repeated for credit with consent of instructor.

C219. Topics in Modern Philosophy. (4) Selected topics in one or more philosophies of the early modern period, or study in a single area such as theory of knowledge or metaphysics in several of the philosophies. May be repeated for credit with consent of instructor. Concurrently scheduled with course C119.

C220. Seminar: Topics in History of Philosophy. (4) Seminar, three hours. Selected problems and philosophers which may be from different periods. May be repeated for credit with consent of instructor.
Group II. Logic, Semantics, and Philosophy of Science

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M112. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal arithmetic, finiteness and infinity, continuum hypothesis, inaccessible numbers. Formalization of set theory: Zermelo/Fraenkel; von Neumann/Gödel theory. May be repeated for credit with consent of instructor. S/U or letter grading.

221B. History of Set Theory. (4) Development of concept of set and axiomatic set theory by examining selected writings of Frege, Cantor, Russell, Zermelo, Gödel, and several others. Origins and significance of certain key ideas, such as set theory as logic, axiomatic set theory as a reaction to the paradoxes, formal first-order axiomatic set theory as opposed to informal axiomatics, type theory and rank hierarchy, ramification and predicativity, proper classes and sets as small classes, and particular Zermelo/Fraenkel axiomatic theory. Emphasis on actual expressed ideas and views of various influential authors.

222A-222B-222C. Gödel Theory. (4-4-4) 222A. Preparation: sequence in logic, preferably including course 135B. First in series of three courses leading to Gödel incompleteness theorem and Tarski definition of truth. 222B. Requisite: course 222A. Second-year seminar in second in series of three courses leading to Gödel incompleteness theorem and Tarski definition of truth. 222C. Requisite: course 222B. Gödel numbering and Gödel theory. Final course in Gödel theory series.

224. Philosophy of Physics. (4) Selected philosophical topics related to physical theory, depending on interests and background of participants, including space and time; observation in quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor.

225. Probability and Inductive Logic. (4) Lecture, three hours. Requisite: course M134 or Mathematics M112. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. S/U or letter grading.

226. Topics in Mathematical Logic. (4) Content varies from term to term. May be repeated for credit with consent of instructor.

227. Philosophy of Social Science. (4) Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relations among statistical processes and individual psychology, logic of explanation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one's own. Students with primary interest and advanced preparation in a social science are encouraged to enroll. May be repeated for credit with consent of instructor.

230. Seminar: Logic. (4) May be repeated for credit with consent of instructor.

231. Seminar: Intensional Logic. (4) Topics may include logic of sense and denotation, modal logic, logic of demonstratives, epistemic logic, intentional logic of Principia Mathematica, possible worlds semantics. May be repeated for credit with consent of instructor.

232. Philosophy of Science. (4) Selected topics in philosophy of science. May be repeated for credit with consent of instructor.

233. Seminar: Philosophy of Physics. (4) May be repeated for credit with consent of instructor.

Group III. Ethics and Value Theory

241. Topics in Political Philosophy. (4) 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.

245. History of Ethics: Modern. (4) Formerly numbered 245.) 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) Selected topics. Content varies from term to term. May be repeated for credit with consent of instructor.

247. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C156. S/U or letter grading.

248. Problems in Moral Philosophy. (4) Intensive study of some leading current problems in moral philosophy. May be repeated for credit with consent of instructor.

255. Seminar: Aesthetic Theory. (4) Selected topics. May be repeated for credit with consent of instructor.

M256. Topics in Legal Philosophy. (4) Same as Law M251.) Lecture, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor.

M257. Seminar: Philosophy of Law. (4) Same as Law M524.) Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor.

Group IV. Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Discussion, three hours. May be repeated for credit with consent of instructor.

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; de-terminism and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.

280. 20th-Century Continental Philosophy. (4) Selected topics in 20th-century continental European philosophy. May be repeated for credit with consent of instructor.

281. Seminar: Philosophy of Mind. (4) May be repeated for credit with consent of instructor.

282. Seminar: Metaphysics. (4) May be repeated for credit with consent of instructor.

283. Seminar: Theory of Knowledge. (4) May be repeated for credit with consent of instructor.

284. Seminar: Philosophy of Perception. (4) May be repeated for credit with consent of instructor.

285. Philosophy of Psychoanalysis. (4) Examination of topics such as nature and validity of psychoanalytic explanations and interpretations, psychoanalytic theory and psychoanalytical concepts such as the unconscious, the ego, id, superego, defense mechanisms, and psychoanalytic conception of human nature.

286. Philosophy of Psychology. (4) Relevance of computer simulation to accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology.

287. Seminar: Philosophy of Language. (4) May be repeated for credit with consent of instructor.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor.

289. Seminar: Philosophy of Religion. (4) May be repeated for credit with consent of instructor.
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 awe-some 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 which 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 which 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 which is demanded by the breadth of these two disciplines.

Undergraduate Study

The Department of Physics and Astronomy offers a choice of three undergraduate majors: the B.S. degree program in Astrophysics, the B.S. degree program in Physics, and the B.A. degree program in General Physics. Courses 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 University students, including those who are not science oriented. The Astronomy 2A and 2B two-term sequence covers the material in courses 3, 4, and 6, and students may take either sequence or the other, but not both.

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. Students who had an astronomical introductory course in high school should take either courses 2A and 2B, or 3H.

Astronomy 4, 5, and 6 develop the topics covered in course 3 to somewhat greater depths. They use more mathematics but are still aimed at nonscience majors. Course 4 details the stars and stellar systems; course 5 concentrates on the problem of life in the universe; course 6 discusses endpoints of stellar evolution and the structure and evolution of the universe. These three courses may be taken in any order by students with a grade of C or better in course 3, or whose astronomical knowledge is on a similar level.

Students who have had at least two courses in high school algebra and one course in trigonometry are advised to take, instead of Astronomy 3, the parallel honors course, Astronomy 3H. Declared or potential majors in Astrophysics or in physical sciences should take course 3H if they need an elementary introductory course in astronomy.

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 6A, 6B, 6C form a one-year sequence of courses in basic physics for students in the biological and health sciences.

Physics 10 is a one-term, nonlaboratory course that surveys the whole field of physics. Any two or more courses from Physics 1A, 6A, and 10 are limited to 6 units credit.

**Astrophysics B.S.**

**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:* Astronomy 3H, Chemistry and Biochemistry 20A.

**Transfer Students**

To be admitted as Astrophysics majors, transfer students 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.

**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 at least two courses from the Physics 180 series, 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, 132, 140A, 140B; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the undergraduate advisers. A C average is required in all courses taken to satisfy the major requirements.

**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.

**Physics B.S.**

The Physics major should be taken if students intend to continue toward the Ph.D. in Physics.

**Preparation for the Major**

*Required:* Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 3-160 Knudsen Hall.

**Transfer Students**

To be admitted as Physics majors, transfer students 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.

**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 at least two courses from the Physics 180 series, 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, 132, 140A, 140B; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the undergraduate advisers. A C average is required in all courses taken to satisfy the major requirements.

Students preparing for graduate school should take additional courses in physics and mathematics. Physics 108, 114, 117, M122, 123, 124, 126, 132, 140A, and 140B are recommended.

**Honors Programs**

The department offers three honors programs leading to graduation with honors or highest honors in physics. Students are eligible after completing the preparation for the major and four upper division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.

**General Physics B.A.**

The General Physics major is intended to provide the necessary flexibility for fields in which a strong background of knowledge in physics would be helpful. If students intend to continue work toward the Ph.D. in Physics, they are advised to work for the B.S. in Physics as described earlier.

**Preparation for the Major**

*Required:* Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Mathematics and Chemistry 20A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 3-160 Knudsen Hall.

**Transfer Students**

To be admitted as General Physics majors, transfer students 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.

**The Major**

*Required:* Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 131, one course from the 180 series, two upper division physics electives (excluding C185 and 199), and four upper division courses in no more than two other UCLA departments. A C average in the upper division physics courses is required.

**Single Subject Credentials**

Students may earn credentials for secondary science teaching in the following subject areas: biological science, chemistry, physics, and geoscience. Completion of the single subject credential program in the Teacher Education Program is required. Consult the Department of Education, 1009 Moore Hall, (310) 825-8328, for information.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.T.) degree in Astronomy, Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Astronomy, Master of Arts in Teaching (M.A.T.) degree in Physics, and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Physics.

**Astronomy**

**Lower Division Courses**

2A-2B. Introduction to the Physical Universe, (4-4) Lecture, three hours; discussion, one hour. Thorough introductory survey of astronomy for students not planning to major in physical sciences. Same topics as course 3 but in greater depth, with emphasis on physical reasoning. P/NP or letter grading. 2A, Planets and Stars; 2B, Galaxies and Cosmology. Enforced requisite: course 2A with a grade of C or better.
3. Nature of the Universe. (5) Lecture; three hours; discussion, two hours. Not open to students with credit for or currently enrolled in course 3H or 81 or 82. No special mathematical preparation required beyond that necessary for admission to the University in freshman standing. Course for general University students, normally not intended to major in physical sciences, on topics in astronomy and what has been learned of the nature of the universe, including recent discoveries and developments. P/NP or letter grading.

3H. Introductory Astronomy and Astrophysics. (4) Lecture, three hours; discussion, one hour. Not open to students with credit for or currently enrolled in course 3H. Introduction to astronomy and astrophysics for freshmen interested in science. Requires ability to understand mathematical and physical concepts, but high school algebra and trigonometry classes provide sufficient qualification. Particularly recommended for declared or potential majors in Astrophysics or in physical and mathematical sciences. P/NP or letter grading.

4. Universe of Stars and Stellar Systems. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 3 or 3H. Essentially non-mathematical course for general University students with previous introduction to astronomy; sequel to course 3, dealing in greater detail with stars and stellar systems. Various observational data to test the internal structure and evolutionary state. Interacting binary stars, pulsating stars, explosive stars (novae and supernovae). Mass loss from stars, stellar wind. Galactic and planetary nebulae and their relation to stars. Interstellar medium. Initial stages of stellar evolution (protostars, T Tauri stars) and final stages (degenerate and collapsed stars). Stellar systems from clusters to galaxies. P/NP or letter grading.

5. Life in the Universe. (4) Lecture, four hours; discussion, one hour. Preparation: prior introduction to astronomy. Life on Earth and prospects for life elsewhere in our galaxy. Evolution of the universe from the simple to complex. Course material primarily from astronomy and biology but includes some chemistry, geology, and physics. Selected topics treated in some depth, but with little or no formal mathematics. P/NP or letter grading.


7. Astronomy and the Media. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Enforced requisites: course 3. Designed to help nonmajors develop skills to continually learn about science through media. Detailed study of research currently in the media, including meteor impacts, greenhouse effect, NASA, cosmology, and extraterrestrial life. Investigation of forces that influence science reporting. P/NP or letter grading.

8A-8B. Astronomy with Physics: Exploring the Universe. (5-5) Lecture, three hours; discussion, one hour; laboratory. Course 8A is enforced requisites to 8B. Not open to students with credit for course 3 or Physics 10. Two-quarter integrated course in conceptual physics and astronomy to introduce broad range of topics in both fields, including visits to UCLA Planetarium and telescope, as well as optional field trips to dark sky sites. Laboratories offer both hands-on and computer experience. P/NP or letter grading.

81. Astrophysics I: Stars and Nebulae. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomore and upper division students. Survey of our knowledge about stars: their distances, masses, luminosities, temperatures, and interrelations between these parameters. Methods and importance for astrophysics. Variable stars, planetary and gaseous nebulae. P/NP or letter grading.

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Recommended: course 81; Physics 1B and 1C or (18H and 1CH). Open to qualified sophomore and upper division students. Basic principles of stellar structure and evolution. Red giants, white dwarfs, novae, supernovae, neutron stars, and black holes. Pulsars and galactic X-ray sources. Milky Way galaxy and the interstellar medium. Extragalactic astronomy, galaxies, active galactic nuclei, and quasars. Introduction to cosmology: Hubble law, thermal history of the Big Bang, and earliest moments of the universe. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (2-2) Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of evolution; discussion of how, over billions of years, basic mechanisms of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.


180. Astrophysics Laboratory. (4) Lecture, two hours; laboratory, four hours. Designed for juniors/seniors in Astrophysics, Physics, or a related field. Lectures cover statistical methods in astrophysics, one- and two-dimensional random processes, and numerical methods. Laboratory experiments involve radio astronomy, interferometry, narrowband solar imaging, and visual photometry. Use of computers for automatic collection of data and for processing two-dimensional astronomical images. P/NP or letter grading.

199. Special Studies. (2 or 4) Tutorial, to be arranged. Open to students with letter grades of A or A- or better. Consent of instructor required. Projects planned in conjunction with a faculty adviser. Course may be repeated for credit. (2-unit course) grading.

Graduate Courses


274. Galaxies. (4) Lecture, three hours. Galaxy properties: kinematics, mass, morphology, stellar populations; stellar orbits and spiral structure; galaxy formation; galaxy clusters, collisions, and mergers; observations and theory of quasars and active galactic nuclei. Letter grading.


277A-277B. Astronomy Research Project. (2-2) Tutorial, to be arranged. Designed for second-year graduate astronomy students. Two-term research project planned in conjunction with a faculty adviser on any suitable research topic in astronomy or astrophysics, culminating in a written report at end of second term. S/U (course 277A) or letter (course 277B) grading.

278. Special Topics in Astronomy. (2 or 4) Seminar, to be arranged. Open to students with letter grades of A or A- or better. Consent of instructor required. One- or two-unit course, focusing on one of a set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.


281. Quantum Mechanics for Astrophysics. (4) Lecture, four hours. Designed for departmental graduate students. Quantum mechanical topics in areas of interest for astrophysics applications. Hydrogen atom, radiative transitions, complex atoms, molecular spectroscopy including electronic, vibrational, and rotational transition, nuclear reaction theory. Letter grading.
Physics

Lower Division Courses

1A. Physics for Scientists and Engineers: Mechanics (Honors) (Not the same as course 6A prior to Fall Quarter 2002.) Lecture, three hours; discussion, one hour. Enforced requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Mathematics 32A, 32B, Enriched corequisite: Mathematics 33A. Open for credit to students with credit for course 6A. Not open for credit to students with credit for course 6CH. Special mathematical preparation necessary for admission to University in freshman standing not required. Topics include planetary motion, Newton laws, gravitation, electricity and magnetism, wave motion, light, sound, and heat, relativity, quantum mechanics, astrophysics, and subatomic particles. As time permits, development of physical ideas placed in cultural and historical perspective. S/U grading.


18L. Modern Physics Laboratory (8) Lecture, one hour; laboratory, six hours. Enforced requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Chemistry 20A, 20B, Life Sciences 1, 3, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A. Specific examples of diverse biological design such as scaling of metabolic activity, bone and muscle mass, cell size, membrane and pumps, heart and blood circulation, swim bladders, insect vision, magnetic bacteria, etc., studied quantitatively using elementary mathematics and physicochemical principles. P/NP or letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Earth and Space Sciences M285.) Lecture, four hours. Dynamic problems of solar system; chemical evidence from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; solar origin, evolution, and termination; solar nebula, hydromagnetic processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.

296. Research Topics in Astronomy. (2) Discussion, two hours. Advanced study and analysis of current topics in astronomy. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

M297. Research Tutorial: Astroparticle Physics. (2 or 4) (Same as Physics M297.) Tutorial, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussion by faculty, postdoctoral fellows, and graduate students on topics of current interest in astroparticle physics. May be repeated for credit. S/U grading.

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

596A. Directed Individual Studies. (4 to 10) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

596L. Advanced Study and Research at Lick Observatory. (4 to 12) Tutorial, to be arranged. Designed for graduate students who require observational experience, as well as those working on observational problems for their thesis. May be repeated at discretion of department. S/U grading.

599. Ph.D. Research and Writing. (10 to 12) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

6BH. Physics for Life Sciences Majors: Waves, Electricity, and Magnetism. (5) (Not the same as course 6C prior to Fall Quarter 2002.) Lecture, three hours; discussion, one hour. Enforced requisite: course 6A or 6AH. Not open for credit to students with credit for course 6B. Sound and electromagnetic waves, interference, diffraction, radioactivity, and hydrodynamics, with applications to biological and biochemical systems. P/NP or letter grading.

6CH. Physics for Life Sciences Majors: Electricity, Magnetism, and Transport (Honors). (5) (Formerly numbered 6C.) Lecture, three hours; discussion, one hour. Laborbatory, two hours. Enforced requisite: course 6B, 6C, or 6AH. Not open for credit to students with credit for course 6CH. Geometrical and physical optics, fluid statics and dynamics, thermodynamics. Selected topics from foundations of quantum mechanics; atoms, nuclear and particle physics; relativity; medical detectors; biological applications. P/NP or letter grading.

617. Atomic Physics. (2) Lecture, three hours; discussion, one hour. Open for credit to students with credit for course 1A, 1AH, 1BH, or 1CH. Corequisite: Mathematics 32A. Open for credit to students with credit for course 6CH. Special mathematical preparation necessary for admission to University in freshman standing not required. Topics include electronic structure of atoms and molecules, quantum mechanics, wave-particle duality, quantum mechanics, special relativity, atomic physics, and subatomic particles. As time permits, development of physical ideas placed in cultural and historical perspective. S/U grading.

68. Lower Division Seminar: Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive exploration of a particular theme or topic based on current research. Consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading.

M88. Limits of Biological Design through Physical Principles. (4) (Same as Molecular, Cell, and Developmental Biology MB88.) Seminar, three hours. Enforced requisite: two courses: 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 1AH, 1BH, 1CH, or 6A, 6B, and 6C, Chemistry 20A, 20B, Life Sciences 1, 3, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A. Specific examples of diverse biological design such as scaling of metabolic activity, bone and muscle mass, cell size, membrane and pumps, heart and blood circulation, swim bladders, insect vision, magnetic bacteria, etc., studied quantitatively using elementary mathematics and physical principles. P/NP or letter grading.

18L. Modern Physics Laboratory (8) Lecture, one hour; laboratory, six hours. Enforced requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Chemistry 20A, 20B, Life Sciences 1, 3, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A. Specific examples of diverse biological design such as scaling of metabolic activity, bone and muscle mass, cell size, membrane and pumps, heart and blood circulation, swim bladders, insect vision, magnetic bacteria, etc., studied quantitatively using elementary mathematics and physical principles. P/NP or letter grading.
Upper Division Courses

105A. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Mathematics 32B, 33A. Corequisite: Mathematics 33B. Newtonian mechanics and conservation laws, gravitational potentials, calculus of variations, Lagrangian and Hamiltonian mechanics, central force motion, linear and non-linear oscillations. P/NP or letter grading.

105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A. Relativity with four vectors, non-inertial reference frames, dynamics of rigid bodies, coupled oscillators, normal modes of oscillation, vibrating strings, and wave propagation. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 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. Mathematics 32B, 33A, 33B. Electrostatics and magnetostatics. P/NP or letter grading.

110B. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, Mathematics 332B, 33A, 33B. Corequisite: course 115B. Fundamentals of thermodynamics, including first, second, and third laws. Statistical mechanical point of view and its relation to thermodynamics. Some simple applications. 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 115B. Fundamentals of thermodynamics, including first, second, and third laws. Statistical mechanical point of view and its relation to thermodynamics. Some simple applications. P/NP or letter grading.

114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 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 experience with building of devices and physical measurement in electronics laboratories. Letter grading.


123. Atomic Structure. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131, 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 physics, nuclear forces, nuclear structure, nuclear decays, and nuclear reactions. Letter grading.

126. Elementary Particle Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131, 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.

130. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Mathematics 32B, 33A, 33B, 33C. Corequisite: course 115C. Functions of a complex variable, including Riemann surfaces, analytic functions, Cauchy theorem and formula, Taylor and Laurent series, calculus of residues, and Laplace transforms. P/NP or letter grading.


140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 115C. 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.


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, 105B, 110B, 115A, 115B. Physics of charged-particle and laser beams presented as a unified subject. Basic physics of charged-particle beams, covering relativistic particle motion in electromagnetic fields, transverse focusing, acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including gain and broadening mechanisms, linear optical lasers, laser resonators, and advanced topics and applications. P/NP or letter grading.

160. Numerical Analysis Techniques and Particle Simulations. (4) Lecture, three hours; computer terminals, six hours. Preparation: minimum knowledge of computer programming (FORTRAN). Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A, 105B, 110A, 110B. Introduction to the field of computer modeling of physical systems using particle models; numerical models and methods, methods of diagnosing results, experience with running interesting physical problems. P/NP or letter grading.

180A. Nuclear Physics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180B. Physical Optics and Spectroscopy Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180C. Solid-State Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180D. Acoustics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180E. Plasma Physics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180F. Elementary Particle Laboratory. (4) Laboratory, four hours. P/NP or letter grading.


199. Special Studies in Physics. (2 to 4) Tutorial, to be arranged. May be repeated, but no more than 12 units may be applied toward Physics B.S. degree requirements.

Graduate Courses

201Q. Modern Physics Research Areas. (2) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


244A. Advanced Acoustics. (4) Propagation of waves in elastic and fluid media. Reflection, refraction, diffraction, and scattering of waves in fluids. At- tenuation mechanisms in fluids.


215A. Statistical Physics. (4) Thermodynamics and statistical mechanics with applications.


215C. Quantum Statistical Mechanics and the Many Body Problem. (4) Classical methods for inter- acting systems: quantum field theory techniques in statistical mechanics; Green's function approach; Coulomb gas; imperfect Bose gas; electron/phonon interaction; superconductivity; phase transitions; the- oretical. 215C.


220. Classical Mechanics. (4) Lecture, three hours. Hamiltonian mechanics, action-angle variables, classi- cal perturbation theory, and selected topics such as introduction to physics of continuous media and fluid- nons, nonlinear phenomena.

221A-221B-221C. Quantum Mechanics. (4-4-4) Lecture, three hours. 221A. Fundamentals of quan- tum mechanics, operators and state vectors, equa- tions of motion. 221B. Requisite: course 221A. Rotations and other symmetry operations, perturbation theory. 221C. Perturbation theory of collision processes, quantum theory of radiation, introduction to relativistic quantum mechanics.

222A-222B-222C. Plasma Physics. (4-4-4) Proper- ties of a Coulomb gas with and without a magnetic field: electron and ion dynamics, instabilities, fluctua- tions, collective phenomena, transport properties, and radiation. Description via single-particle orbit the- ory, magnetohydrodynamics, and kinetic equations of various types.

223. Advanced Classical Mechanics. (4) Requi- site: course 220. Topics such as nonlinear mechan- ics, ergodic theory, mechanics of continuous media.

224. Introduction to the Strong Interaction. (4) Ev- idence for the strong interaction, particularly as exemplified in nucleon/nucleon and pion/nucleon systems. Isospin, scattering matrix, density matrix and polarization, properties of pions, one pion ex- change potential, phase shift analysis.


293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour. Seminar and discussion by staff and students on current topics in physics, both experimental and theoretical (topics not limited to one field of physics). Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.

294. Research Tutorial: Accelerator Physics. (2 or 4) Lecture, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussion by faculty, postdoctoral fellows, and graduate students on topics of current interest in accelerator physics. May be repeated for credit. S/U grading.

295. Research Tutorial: Solid Earth Physics. (2 or 4) Required (or course 292 if appropriate) of each graduate student doing research in this field, ordinarily in second or third year. Seminar and discussion on solid earth physics. May be repeated for credit. S/U grading.

296. Research Topics in Physics. (2) Advanced study and analysis of current topics in physics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

M297. Research Tutorial: Astroparticle Physics. (2 or 4) (Same as Astronomy M297.) Lecture, one hour; discussion, two hours. Required of each graduate student doing research in this field, Seminar and discussion by faculty, postdoctoral fellows, and graduate students on topics of current interest in astroparticle physics. May be repeated for credit. S/U grading.

298. Research Tutorial: Experimental Elementary Particle Physics. (2 or 4) Limited to six students. Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students on current problems in experimental elementary particle physics. May be repeated for credit. S/U grading.

299. Research Tutorial: Nuclear Physics. (2 or 4) Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion on nuclear physics by staff and students, in both experiment and theory. May be repeated for credit. S/U grading.

M370A. Integrated Science Instruction Methods. (4) (Formerly numbered 370.) (Same as Chemistry M370A and Earth and Space Sciences M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower division year (including laboratory) each of chemistry, life sciences, and physics and at least two Earth science courses, preferably one with field experience. Classroom management, lesson design, assessment, history of science education. S/U or letter grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Earth and Space Sciences M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: course M370A (or former course 370) or Chemistry M370A or Earth and Space Sciences M370A. Application of learning theory to science instruction and classroom management, including use of technology, collaborative learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

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

495. Teaching College Physics. (2) Seminar/discussion (five or more one-hour meetings during term, plus intensive training week at beginning of Fall Quarter). Required of all new teaching assistants. Special course for teaching assistants designed to deal with problems and techniques of teaching college physics. Ideas and techniques learned are applied and evaluated in the sections of each teaching assistant. May be repeated for credit. S/U grading.

569. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for Master’s Comprehensive Examination or Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U grading.

598. Master’s Thesis Research and Writing. (4) Tutorial, to be arranged. May be repeated twice for credit.

599. Ph.D. Research and Writing. (8 or 12) Tutorial, to be arranged. May be repeated for a maximum of 18 units. S/U grading.

**PHYSIOLOGICAL SCIENCE**

**College of Letters and Science**

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Arthur P. Arnold, Ph.D., Chair
Barney A. Schlinger, Ph.D., Vice Chair

Professors
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R. James Barnard, Ph.D.
Scott H. Chandler, Ph.D.
V. Reggie Edgerton, Ph.D.
Gordon L. Fain, Ph.D.
David L. Gliman, Ph.D.
Alan D. Grinnell, Ph.D.
Peter M. Narins, Ph.D.
Barney A. Schlinger, Ph.D.
Judith L. Smith, Ph.D.
James G. Tidball, Ph.D.
Allan J. Tobin, Ph.D. (Eleanor I. Leslie Professor of Neuroscience)

Professors Emeriti
Camille Brown, Ed.D.
Bryant J. Cratty, Ed.D.
Glen H. Egstrom, Ph.D.
Gerald W. Gardner, Ph.D.
Margaret E. Haberland, Ph.D.
Valerie V. Hunt, Ed.D.
Jack F. Keogh, Ed.D.
Marjorie E. Latchaw, Ph.D.
Wayne W. Massey, Ph.D.
Ben W. Miller, Ph.D.
Norman P. Miller, Ed.D.

Associate Professors
Alan Garfinkel, Ph.D.
Fernando Gómez-Pinilla, Ph.D.
Patricia E. Phelps, Ph.D.
Walter H. Metzner, Ph.D.

Assistant Professors
Rachelle H. Crosbie, Ph.D.
Stephanie A. White, Ph.D.

Adjunct Professor
Larry Faller, Ph.D.

Adjunct Associate Professors
Nasser A. Farahbakhsh, Ph.D.
Marc Klein, Ph.D.
William C. Whiting, Ph.D.

Scope and Objectives

The cornerstone of the physiological science curriculum is vertebrate physiology, with emphases on integrative functions. The research and educational programs 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 Ph.D. Program (http://www.mcip.ucla.edu) or the interdepartmental Neuroscience Ph.D. Program (http://www.neuroscience.ucla.edu).

Undergraduate Study

Physiological Science B.S.

Preparation for the Major

**Life Sciences Core Curriculum**

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C, or 6AH, 6BH, and 6CH.

All core curriculum courses must be passed with a grade of C– or better and 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

To be admitted as Physiological Science majors, transfer students 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, 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...
Graduate Degrees

A total of four upper division physiological science electives (16 units) is required. Either three units of course 199 or one letter-graded unit of course 198 OR four units of course 190 may be applied toward the elective requirement. Courses C191, 193, 195H, 196, and graduate courses at the 300, 400, or 500 level may not be applied toward this requirement. One graduate course at the 200 level may be applied toward the elective requirement by petition.

All required and elective courses must be taken for a letter grade, and a C average must be maintained in all upper division courses taken for the major. Additionally, a grade of C– or better in each of the core courses (Physiological Science 107, 111A or M180A, 111B, 111C) is required to enroll in the next course in the series.

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 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, http://www.gdnet.ucla.edu. 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 Physiological Science offers the Master of Science (M.S.) degree in Physiological Science.

Physiological Science

Lower Division Courses

3. Introduction to Human Physiology. (4) Lecture, three hours; demonstration, 30 minutes. Not open to Physiological Science majors. Courses 3 and 5 may be taken independently, concurrently, or in either sequence. Presentation of integrative approach to basic anatomy and physiology of major organs and organ systems. P/NP or letter grading.

5. Issues in Human Physiology: Diet and Exercise. (5) Lecture, three hours; 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.


13. Introduction to Human Anatomy. (5) Lecture, four hours; laboratory, three hours. Not open to Physiological Science majors. Structural survey of human body, including skeletal-muscular, nervous, circulatory, respiratory, digestive, and genitourinary systems. Laboratory includes examination of human cadaver specimens. Letter grading.

90. Introduction to Physiological Science. (2) Lecture, one hour; discussion, one hour. Limited to freshmen/sophomores. Introduction to current topics in physiological science by a team of departmental faculty members. P/NP grading.

Upper Division Courses

C100. Experimental Statistics. (4) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. Concurrently scheduled with course CM200. P/NP or letter grading.

CM102. Basic Human Biology for Biomedical Engineers I. (4) Formerly numbered M102.) (Same as Biomedical Engineering CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM204. Letter grading.

CM103. Basic Human Biology for Biomedical Engineers II. (4) Formerly numbered M103.) (Same as Biomedical Engineering CM103.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Molecular-level understanding of human anatomy and physiology in selected organ systems (digestive, skin, musculoskeletal, endocrine, immune, urinary, reproductive). System-specific modeling/simulations (immune regulation, wound healing, muscle mechanics and energetics, acid-base balance, excretion). Functional basis of biomedical instrumentation (diascopy, artificial skin, pathogen detectors, ultrasound, birth control drug delivery). Concurrently scheduled with course CM203. Letter grading.

107. Systems Anatomy. (5) Lecture, four hours; laboratory, three hours; tutorial, two hours. Requisites: Life Sciences 2, Physics 1A or 6A or 6AH. Students must receive a grade of C– or better to proceed to next course in series. Systems anatomy focused primarily on human anatomy. Topics include cardiorespiratory, reproductive, nervous, and skeletal-muscular systems, with introduction to biomechanical principles. Letter grading.

111A-111B-111C. Foundations in Physiological Science. (6-6-6) Lecture, four hours; laboratory, two hours. Letter grading. 111A. Requisites: course 107, Chemistry 14C or 30A, Life Sciences 1, 2, 3, 4. Physics 1B or 6B or 6CH. Not open for credit to students with credit for course M180A. Students must receive a grade of C– or better to proceed to next course in series. Introduction to principles of neurophysiology: cellular and systems neuroscience, including factors controlling membrane excitability, neuronal circuits, sensorimotor regulation, sensitivity/calcium, sensory functions, and neuronal plasticity. 111B. Requisites: course 111A or M180A, Chemistry 14D or 30B. Students must receive a grade of C– or better to proceed to next course in series. Principles of muscular, cardiovascular, and pulmonary physiology. 111C. Requisites: course 111A or M180A. Chemistry 153A. Students must receive a grade of C– or better to proceed to next course in series. Principles of gastrointestinal, renal, endocrine, and reproductive physiology.

111L. Physiological Science Laboratory. (3) Laboratory, four hours. Requisites: courses 111A, 111B, 111C (111C may be taken concurrently). Required of Physiological Science majors. Designed to illustrate physiological principles studied in courses 111A, 111B, 111C. Letter grading.

C125. Comparative Endocrinology: Molecular to Behavioral. (4) Lecture, two hours; discussion, two hours. Requisite: course 111C. Important concepts in endocrinology, with focus on current research involving invertebrate and vertebrate animal models in areas of reproduction, neuroendocrine control of behavior, metabolism, and insect metamorphosis. Concurrently scheduled with course CM225.

126. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisite: course 111A or M180A. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within the organisms and are called circadian rhythms. Exploration of molecular, cellular, and system-level organization of these timing systems.

133. Exercise Physiology. (5) Lecture, three hours; laboratory, two hours. Requisite: course 111B. Physiological responses and adaptations to acute and chronic exercise. Letter grading.

C135. Dynamical Systems Modeling of Physiological Processes. (5) Lecture, four hours; laboratory, two hours. Examination of art of making and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Concurrently scheduled with course CM235.


142. Sensorimotor Physiology. (5) Lecture, three hours; laboratory, two hours. Requisite: course 111A or M180A. Neuropsychological principles governing control of limb movements, including regulation by spinal cord circuits, cerebellum, basal ganglia, and sensorimotor cortices.


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C144. Neural Control of Physiological Systems. (5) Lecture, four hours. Requisite: course 111B or M180B. Review and study of control of respiration, circulation, gastrointestinal, and bladder function. Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course 111A.

C1145. Neuronal Mechanisms Controlling Movement. (5) (Same as Neuroscience M145.) 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. Concurrently scheduled with course C245. Letter grading.

146. Principles of Nervous System Development. (4) Lecture, four hours. Requisites: courses 107 (or Neuroscience 102) and 111A (or M180A or Neuroscience M101A). Examination of construction of vertebrate nervous system as series of steps beginning with several embryonic cell columns and culminating as a 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, four hours; laboratory, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on control of limb movements. Letter grading.

M148. Molecular and Cellular Physiology of Neurons. (4) (Same as Neuroscience M148.) Lecture, three hours. Requisite: course 111A or M180A or Neuroscience M101A. Advanced treatment of selected topics in cellular and molecular physiology. Letter grading.


151. Limb Dynamics. (5) Lecture, three hours; laboratory, two hours. Requisite: course C150. Biomechanical analysis of human movement, with special emphasis on control of limb movements.


153. Dissection Anatomy. (4) Lecture, two hours; laboratory, six hours. Requisite: course 111B. Departmental application required. Study and dissection of upper and lower extremities of human cadavers; dissection of thorax and abdomen limited to musculature of the section and abdomen limited to musculature and neurovascular supply.

155. Development and Structure of Musculoskeletal System. (4) Requisite: course 111B. Development, histology, cytology, cell biology, and biochemistry of musculoskeletal soft tissues. Integration of knowledge of muscle and connective tissue structure and function on each of these levels to understand organization and physiological function of the intact system. Letter grading.

M158. Cell Biology. (6) (Same as Organismic Biology M158.) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20BL, or 30AL, 153A, Life Sciences 1, 2, 3, Physics 1C and 4BL, or 6C or 6CH. Not open for credit to students with credit for Biophysics 167 or 170 or to Physiological Science majors. Introduction to physiological principles of all organ systems and intact organisms. Letter grading.

167. Physiology of Nutrition. (4) Lecture, four hours. Limited to senior Physiological Science majors or graduate students. Examination of relationship to starvation and physiological responses to oxidants/antioxidants, vitamins, minerals, photochemicals, and their relationship to common chronic diseases and physiologic function of fuel utilization during aerobic and anaerobic exercise. Letter grading.

M168. Ideas and Experiments in History of Physiology. (4) (Formerly numbered 172Z.) (Same as Neuroscience M168.) Lecture, three hours. Interaction of concept and experimental techniques in physiologic development from the early 19th to latter 20th centuries, including heart and circulation, hormones, nutrition and vitamins, the brain, spinal cord, and peripheral nervous systems, as well as new areas of physiology as scientific discipline. Discussion of weekly readings and presentations by students. Letter grading.

M173. Anatomy and Physiology of Sense Organs. (4) (Same as Organismic Biology M173.) Lecture, three hours; discussion, four hours. Requisites: courses 111A (or Molecular, Cell, and Developmental Biology 171) or M180A or M180B (or Molecular, Cell, and Developmental Biology M175A and M175B), Structure and function of simple receptors. Adoption of a quantitative and comparative approach to provide insight into evolution of sense organs in both invertebrates and vertebrates. Letter grading.

177. Neuroethology. (5) Lecture, four hours; discussion, one hour. Requisite: course 111A. Physical properties of animal signals and physiological mechanisms underlying their generation. Topics include classical neuroethological models: acoustic and vibrational communication in vertebrates, sound localization in owls, electro-sensing and electrocommunication in electric fish, and neurobiology of birdsong. Letter grading.


M180A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A or former course 30 (14C may be taken for credit as of course 115A), Physics 1B or 6C. Not open for credit to students with credit for Physiological Science 111A. For Physiological Science majors only, a grade of C– or better is required to proceed to Physiological Science 111B. Cellular neurophysiology, membrane, metabolic 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 Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: courses 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M171A or Psychology M171B). Four hours; discussion, 90 minutes. P/NP or letter grading.

M180C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M171A) or Psychology M117A. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M191, Neuroscience M130, Psychiatry M191, and Psychology M191.) Lecture, three hours. Requisites: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M171A) or Psychology M117. Underlying and symptomatic disorders of the brain and spinal cord, as well as psychiatric disorders, including schizophrenia, bipolar disorder, obsessive-compulsive disorder. Provides basic understanding of brain dysfunctions that contribute to disorders and rationale for pharmacological treatments. P/NP or letter grading.

189. Undergraduate Research Seminar. (1) Seminar, 90 minutes. Letter grading. Limited to Physiological Science majors with advanced junior standing and 3.0 grade-point average in major, or seniors. Readings from and discussion of selected literature in research project area. May be repeated for credit. Only 1 letter-graded unit of course 189 may be applied toward elective requirements for the major. P/NP or letter grading.

190A. Honors Thesis. (4) Tutorial, to be arranged. Requisites: courses 111A, 111B, 111C. Limited to two students per semester, with credit for Organismic Biology 167 or 170 or Life Sciences 2, Physics 1B or 1C. Letter grading.

190B. Honors Thesis. (4) Tutorial, to be arranged. Requisite: course 190A. Corequisite: course 189. Continued reading and research that culminate in final honors thesis. Only 4 units of course 190B or 3 units of course 199 and 1 unit of course 199 may be applied toward elective requirements for the major. Letter grading.

190C. Advanced Studies for Honors Thesis. (4) Tutorial, to be arranged. Requisite: course 190B. Corequisite: course 189. Additional credit to provide further research opportunities for departmental honors students. Letter grading.

C191. Recent Advances in Neurophysiology. (1) Seminar, one hour. Requisite: Life Sciences 2. Critical examination and discussion of recent data and publications that focus on synaptic function. Student presentations, readings, and participation in discussions required. Concurrently scheduled with course C294. P/NP grading.

192. Intracellular Calcium Regulation. (4) Lecture, one hour; discussion, two hours. Requisites: courses 111A, 111B, 111C. Lecture on and review of current literature covering broad issues of intracellular calcium and its role in cellular functions. Letter grading.

193. Field Studies in Physiological Science. (4) Lecture, one hour; fieldwork, six to eight hours. Limit ed to seniors. Departmental application required. Supervised field studies in specific careers related to physiological science. May be repeated for credit and may not be applied toward elective requirements for the major. P/NP grading.

M194. Undergraduate Seminar: Current Topics in Biomedical Sciences. (2) (Same as Molecular, Cell, and Developmental Biology M194 and Organismic Biology M194.) Seminar, two hours. Designed for juniors/seniors in research traineeships or those who have demonstrated commitment to graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of a paper selected from current literature. May be repeated for credit. P/NP or letter grading.

195H. Undergraduate Seminar: Current Topics in Physiology. (3) Seminar, three hours. Requisites or corequisites: courses 190A, 190B. Designed for juniors/seniors and required of honors program students. Presentation of primary paper from physiology literature. Reading and critical evaluation of current research literature. Presentation of student laboratory research hypothesis, approach, and results in form of oral and poster presentations. Letter grading.
196. Laboratory Practicum in Systems Anatomy. (3) Lecture, two hours; laboratory practicum, five hours. Requisite: course 107. Training in supervised practicum for advanced undergraduates in teaching courses related to human anatomy. Students assist in preparation of materials and development of innovative programs under guidance of faculty and teaching assistants. Concurrent Undergraduate Office for further information. May not be applied toward elective requirements and may not be repeated for credit. Departmental application required. P/NP or letter grading.

197A-197Z. Variable Topics in Physiological Science. (4 each) Limited to juniors/seniors. Variable topics courses which cover specific subjects of special interest. May be repeated for credit with topic change.

199. Special Studies in Physiological Science. (2 to 4) Tutorial, to be arranged. Requisites: courses 111A, 111B. Corequisite: course 189. Limited to Physiological Science majors with advanced junior standing and 3.0 grade-point average in major, or seniors. Directed independent research with a faculty member. Course application must be submitted to under-graduate affairs chair during first week of classes. Only 3 units of course 199 may be applied toward elective requirements for the major. P/NP or letter grading.

Graduate Courses

CM200. Experimental Statistics. (4) Same as Bio-statistics M220.) Lecture, four hours. Introduction to statistical methods and computer simulation as applied to biological problems. Bootstrap and Monte Carlo methods used to analyze physiological data. Concurrently scheduled with course CM100. S/U or letter grading.

M202. Cellular Neurophysiology. (4) Same as Neurobiology M200F and Neuroscience M202.) Lecture, three hours; discussion, two hours. Requisites: course 111A or M180A or Physics 6B, Molecular, Cell, and Developmental Biology 171 or Organismic Biology M166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and Neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.


CM204. Basic Human Biology for Biomedical En-gineers II. (4) Same as Biomedical Engineering CM202.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and 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 CM102. Letter grading.

M210. Molecular and Cellular Mechanisms of Neu-ral Integration. (5) Same as Neuroscience M230 and Physiology M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202 or Physiology M209A. 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.

211. Exercise Cardiovascular Physiology. (4) At-tention to cardiovascular adaptations to acute exercise as well as adaptations associated with regular exercise training.

M212. Introduction to Cellular Physiology and Biophysics. (6) Same as Molecular, Cell, and Devel-opmental Biology M237 and Physiology M212.) Lecture, five hours. Requisite: course 111A or Physi-ology M209A. Development of fundamental concepts and techniques of cellular and molecular biology and biophysical concepts associated with all membranes, membrane channels and transporters, membrane potential, membrane excitability, electrical signals across membranes, and the mechanisms of contraction and their application to study of basic cellular processes. Emphasis in laboratory on development of skills using computer programming languages, spreadsheets, and graphics for modeling and analysis of cellular processes.

M213. Principles of Integrative Physiology. (6) Same as Physiology M213.) Lecture, four hours; dis-cussion, two hours. Designed for graduate students. Open to juniors/seniors with consent of instructor. Basic principles of biological integration, including regu-lation, homeostasis, feedback, and natural selection, to be illustrated by emphasis on a major microbial throug-whole animal view of four sets of problems: information processing, development, and plasticity in central nervous system; endocrine regulation of repro-duction; feeding, digestion, and blood pressure and control of eye movements; and matching of en-zyme, transporter, and bone capacities to natural loads.

215. Molecular and Cellular Foundations of Physi-ology. (5) Lecture, three hours; discussion, two hours. Application of molecular and cellular approaches to systems level questions. Basic foundation for study of major physiological systems, with emphasis on levels of organization and their relation from molecular to macroscopic. Letter grading.

CM225. Comparative Endocrinology: Molecul-ar to Behavioral. (4) Same as Physiology M225.) Lecture, two hours; discussion, two hours. Designed for graduate students in endocrinology or biophysics, with focus on current research involving inverte-brate and vertebrate animal models in areas of repro-duction, neuroendocrine control of behavior, metabo-lism, and insect metamorphosis. Concurrently scheduled with course C125.


C235. Dynamical Systems Modeling of Physiologic-al Processes. (5) Lecture, four hours; laboratory, two hours. Examination of art of making and evaluat-ing dynamical models of physiological systems and of dynamical principles inherent in physiological sys-tems. Concurrently scheduled with course C135.


241. Substrates for Neural Repair. (4) Lecture, four hours. Requisite: Neuroscience M201 or M203 or M204. Progress in basic and clinical neuroscience poses urgent therapeutic need to improve cell repair and strategies to promote neural healing. Focus on physiological, molecular, and anatomical basis governing repair processes in brain and spinal cord and their clinical implications. Letter grading.


C244. Neural Control of Physiological Systems. (5) 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.

C245. Neural Mechanisms Controlling Movement. (5) Lecture, four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of cen-tral nervous system organization required for produc-tion of complex movements such as locomotion, mas-turbation, and swallowing. Concurrently scheduled with course CM145. Letter grading.

250A. Muscle Dynamics. (4) Lecture, four hours. Requisite: course 151. Integrated study of electrical and mechanical parameters of muscle and fibers, including topics in length-tension and force-velocity interrela-tionships; critical analysis of electromyographic and digital computer techniques. Letter grading.


C263. Neuronal Mechanisms Controlling Rhyth-mical Movements. (4) (Same as Neuroscience M263.) Requisite: course CM145. Advanced topics on patterns of neuronal mechanisms responsible for controlling cyclic and stereotypic movements such as mastication and locomotion. Emphasis on cellular neurophys-iology and neural interaction between neuronal networks. Introduction to primary brainstem and nuclei used in these areas. Students expected to critically evaluate data and conclusions drawn.
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PHYSIOLOGY
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John McD. Tormey, M.D., Vice Chair, Instruction

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Jared M. Diamond, Ph.D.
Alan D. Grinnell, Ph.D.
Earl E. Homsher, Ph.D.
H. Ronald Kaback, M.D.
Emeran A. Mayer, M.D.
Istvan Mody, Ph.D. (Tony Coelho Professor of Neurology)
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Oscar U. Scremin, M.D., in Residence
Enrico Stefani, M.D., Ph.D.

John McD. Tormey, M.D.
Julio L. Vergara, Ph.D.
James N. Weiss, M.D. (Chizuko Kawata Professor of Cardiology)
Shimon Weiss, D.Sc.
Ernest M. Wright, D.Sc. (Sherman M. Mellinkoff Distinguished Professor of Medicine)
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Professors Emeriti
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Ralph R. Sonnenschein, M.D.
Bernice M. Wenzel, Ph.D.
Brian J. Whipp, Ph.D.

Associate Professors
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Holly Middlekauff, M.D.
Thomas J. O’Dell, Ph.D.
Nancy L. Wayne, Ph.D.

Assistant Professors
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Jonathan M. Monk, Ph.D.
Hui Sun, Ph.D.
Hal F. Yee, M.D., Ph.D.

Adjunct Professors
Christopher B. Cooper, M.D.
Arthur Peskoff, Ph.D.
Douglas Rees, Ph.D.
Kenneth P. Roos, Ph.D.

Adjunct Assistant Professor
Bernard Ribalet, Ph.D.

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.

In a recent survey conducted by the Conference Board of the Associated Research Councils, UCLA’s Physiology Department was judged fifth best in the nation in terms of the quality of its faculty. The department offers postdoctoral training in research and welcomes students interested in articulated M.D./Ph.D. programs.

Applicants interested in pursuing graduate study may apply directly to the interdepartmen-
Graduate Degrees

The Department of Physiology offers the Master of Science (M.S.) degree in Physiology.

Physiology

Lower Division Courses

M209A. Molecular, Cellular, and Developmental Neurobiology. (6) (Same as Molecular, Cell, and Developmental Biology CM220, Neurobiology M200B, and Neuroscience M201.) Lecture, two hours; discussion, two hours; laboratory, two hours. Fundamental topics concerning molecular, cellular, and developmental neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synaptic formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M210. Molecular and Cellular Mechanisms of Neural Injury. (Same as Molecular Biology M202A, and Physiological Science M210.) Lecture, four hours; discussion, one hour. Required: course M209A or Neuroscience M202. Introduction to mechanisms of synaptic plasticity and current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception, learning, neural nets and oscillators, and molecular events in development and sexual differentiation.

M212. Introduction to Cellular Physiology and Biophysics. (6) (Same as Molecular, Cell, and Developmental Biology M267 and Physiological Science M212.) Lecture, five hours. Required: course M209A or Physiological Science 111A. Development of fundamental physiological and biological concepts associated with all membranes, membrane channels and transporters, membrane potential, membrane excitability, electrical signal transmission and transduction, and muscle contraction and their application to study of basic cellular processes. Emphasis in laboratory on development of skills using computer programming languages, spreadsheets, and graphics for modeling and analysis of cellular processes.

M213. Principles of Integrative Physiology. (6) (Same as Physiological Science M213.) Lecture, four hours; discussion, two hours. Designed for graduate students. Open to juniors/seniors with consent of instructor. Principles of integrated physiology. Emphasis on integration of reproduction; feedback regulation of blood pressure; neural plasticity in central nervous system; endocrine regulation of reproduction; feedback regulation of blood pressure and control of eye movements; and matching of enzyme, transporter, and bone capacities to natural loads.

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 micronelectrode 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) Required: course 220. In-depth coverage of general properties of excitable cells, linear cable properties, nonlinear conductance changes, and generation and propagation of the nerve impulse. Voltage gating and gating currents, as well as relationship between macroscopic conductance and single channel properties discussed in analytical detail using original publications.

M223. Membrane Molecular Biology. (4) (Same as Biological Chemistry M223.) Lecture, two hours; discussion, two hours. Required: Biological Chemistry CM253. Advanced course in molecular aspects of membrane physiology and biochemistry covering lipids and physical chemistry of biological membranes; membrane biogenesis and targeting of proteins to membranes; pumps, carriers, and channels; receptors and transmembrane signaling. S/U or letter grading.

M225. Comparative Endocrinology: Molecular to Behavioral. (4) (Same as Physiological Science CM225.) Lecture, two hours; discussion, two hours. Designed for graduate students. Important concepts in endocrinology, with focus on current research involving invertebrate and vertebrate animal models in areas of reproduction, neuroendocrine control of behavior, neuroendocrine, and neuroendocrine and insect metamorphosis.

298. Current Topics in Physiology. (2 to 4) Lecture, one hour; discussion, one hour. Offered for graduate 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

88. Lower Division Seminar: Special Topics in Physiology. (4) Seminar, three hours; outside study, nine hours. Required: satisfactory of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in physiology approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

Upper Division Courses

100. Elements of Human Physiology. (6) Designed for first-year dental students. Major organic body functions. With special supplementation, a suitable introduction to the field for graduate students for whom the 201A, 201B course sequence is too extensive.

199. Special Studies. (1 to 8) Tutorial, to be arranged. Special studies in physiology, including either reading assignments or laboratory work or both, designed for proper training of students.

Graduate Courses

201A-201B. Organ System Physiology. (6-6) Lecture, six hours; laboratory, three and one-half hours. Designed for medical and qualified graduate program students. Recommended corequisites: courses M203A, M203B. Runs throughout School of Medicine's second semester. Lectures, laboratories, and conferences. Properties of biological membranes. Contractility of muscle. Epithelial transport. Cardiovascular, renal, respiratory, and gastrointestinal systems. Fluid and electrolyte balance. To receive credit, both courses must be taken together in same academic year. In Progress and letter grading.

M209A-M203B. Neuroscience. (4-4) (Same as Neu- rorobology M203A-M203B.) Lecture, four hours. Designed for medical and qualified graduate program students. Lectures, conferences, demonstrations, and laboratory procedures necessary to understand functions of nervous system, with emphasis on their applications in the medical sciences. To receive credit, both courses must be taken together in same academic year. In Progress and letter grading.

202. Comparative Physiology. (6) Required: course 220, in-depth coverage of general properties of excitable cells, linear cable properties, nonlinear conductance changes, and generation and propagation of the nerve impulse. Voltage-gating and gating currents, as well as relationship between macroscopic conductance and single-channel properties discussed in analytical detail using original publications.

M223. Membrane Molecular Biology. (4) (Same as Biological Chemistry M223.) Lecture, two hours; discussion, two hours. Required: Biological Chemistry CM253. Advanced course in molecular aspects of membrane physiology and biochemistry covering lipids and physical chemistry of biological membranes; membrane biogenesis and targeting of proteins to membranes; pumps, carriers, and channels; receptors and transmembrane signaling. S/U or letter grading.

298. Current Topics in Physiology. (2 to 4) Lecture, one hour; discussion, one hour. Offered for graduate 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.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged.

598. Thesis Research for M.S. Candidates. (2 to 12) Tutorial, to be arranged.

599. Dissertation Research for Ph.D. Candidates. (2 to 12) Tutorial, to be arranged.

Policy Studies

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Professors Emeriti

Michael D. Intriligator, Ph.D.
Archie Kleingartner, Ph.D.

Associate Professor

Michael A. Stoll, Ph.D.

Assistant Professors

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Meredith Phillips, Ph.D.
Sarah J. Reber, Ph.D.
Andrew Sahl, Ph.D.
Amy B. Zegart, Ph.D.
Visiting Professor
Michael S. Dukakis, J.D.

Scope and Objectives
The Department of Policy Studies is an inter-disciplinary unit composed of faculty members from around the campus, as well as faculty unique to the department. Its goal is to foster an understanding of the theory and practice of public policy in the many fields in which it applies. Examples include social insurance and welfare programs, unemployment and training, drug policy and crime, economic development, environmental quality, education, and health care. The department plays a major role in two schoolwide programs: the Master of Public Policy (M.P.P.) degree and the undergraduate minor in Public Policy.

The M.P.P. degree program is designed to train professionals in both public- and private-sector policy analysis and implementation and provides coursework in such areas as microeconomics, statistics, and political processes. Concurrent degree programs allow students to combine study for an M.P.P. with work toward a J.D. in the School of Law or an M.S.W. in the Department of Social Welfare.

The undergraduate minor in Public Policy familiarizes students with key issues in public policy. Both programs have a heavy applied orientation. For further information on the minor, see Public Policy and Social Research Schoolwide Programs later in this section of the catalog.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnets.ucla.edu. 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 Policy Studies offers the Master of Public Policy (M.P.P.) degree. Two concurrent degree programs (Public Policy M.P.P./Law J.D. and Public Policy M.P.P./Social Welfare M.S.W.) are also offered.

Policy Studies
Lower Division Courses
10A. Introduction to Public Policy. (4) Lecture, three hours; outside study, nine hours. Overview of principal topics of contemporary policy analysis, developing their applications with examples from instructor’s own research, visitors, small student projects, or field trips.

10B. California Policy Issues. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 10A. Application of policy analysis to California issues. Guest lectures from practitioners and academicians along with readings and videos. Student written reports and oral presentations required. Letter grading.

Upper Division Courses
C101. Drug Abuse Control Policy. (4) Formerly numbered 101A. Lecture, three hours; outside study, nine hours. Introduction to and development of main ideas and themes that enter into analysis and execution of policies directed at control of substance abuse and its side effects; illustration and instantiation of main techniques and concepts of policy and management analysis. Concurrently scheduled with course C235. Letter grading.

102. Rational Policies, Irrational People. (4) Lecture, three hours; outside study, nine hours. Development of some central concepts of rational-choice model and examination of theories and evidence about systematic ways in which actual behavior deviates from that model. Examination of various reasons groups of rationally self-seeking individuals might fail to act as rationally self-seeking groups and discussion of policy implications of individual and collective departures from rational action. Letter grading.

103. Ethics, Morality, and Public Life: Contempory Controversies. (4) Lecture, four hours; outside study, eight hours. Study of ethical and moral questions that arise in public life. Goal is not to imbue students with a given body of factual knowledge or to 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? How do they organize themselves and develop leaders? How does integration into mainstream take place? What is “mainstream” today? How does political structure help or impede the notion of a united city? Letter grading.

CM110. Information Superhighway. (4) Same as Communication Studies M155.). Lecture, three hours. Information Superhighway from an non-American viewpoint, considering its meanings, potentials, structures, applications, policy implications, economic, social, and cultural impacts, and public perceptions in a number of countries. Special emphasis on Western Europe, Canada, and Australia, with a look at Japan and China also. Opportunities for Africa and Latin America suggested, especially education, health, and other public services. Concurrently scheduled with course C270. Letter grading.

M111. Culture, Identity, and Media. (4) Same as Communication Studies M157.). Discussion, three hours. Interplay of national culture and identity with electronic media, both “old” and “new.” Examination of how national mythologies, constructive or pernicious, are reinforced through the media in several countries: U.K., France, Germany, Canada; analysis of how media manipulation, especially of radio and television, increasing paves the way to war: Bosnia, Rwanda, Somalia. Letter grading.

C112. Controversies in Education Policy. (4) Lecture, three hours; outside study, nine hours. Focus on several controversial topics in contemporary education. Topics vary each year and include multiculturalism, affirmative action, “test score gap,” bilingual education, and school choice. Introduction to major arguments for and against several important education policies and to encourage students to critically evaluate logic and evidence behind these policies. Concurrently scheduled with course C225. Letter grading.


M116. Nuclear Weapons: Critical Decisions. (4) (Same as Environment M165, Honors Collegium M119, and Political Science M139B.) Lecture, three hours. Examination of critical decisions regarding nuclear weapons, starting with President Roosevelt’s decision to build atomic bomb and ending with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe in the future. Letter grading.


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

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 process 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; outside study, nine hours. Exploration of race-based affirmative action from moral, political, and social philosophy standpoint. Topics include defining discrimination, individual and group equality; different meanings of “diversity”; meritorcy and its critics; historical and future-based arguments; sociology of values; possibilities for moral compromise. Concurrently scheduled with course C248. Letter grading.

141. Employment and Labor Policy: Survey. (4) Lecture, three hours; outside study, nine hours. Requisites: course 10A. Introduction to current public policy issues in employment, labor relations, and labor markets. Historical context for current employment and labor policies in the U.S. Pro and con philosophicoanalytical analysis of reasons for government regulation. Analysis of current data on labor unions, the workplace, and labor-market trends. Workplace diversity, education 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.

C142. Labor Markets and Public Policy. (4) Lecture, three hours; outside study, nine hours. Requisites: course 10A. Survey of major topics in economic analysis of labor markets and public policies toward the labor market. Topics include labor force trends and measurement, compensation determination, productivity, internal labor markets, human capital, union wage effects, unemployment, and minority and female labor-market experience. Concurrently scheduled with course CM230. Letter grading.
M220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M254.) 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 the 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 M256.) Lecture, three hours. Requisites: courses 21 and 203, or Urban Planning 207 and 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into the future, overview of travel forecasting methods, trip generation, trip distribution, mode choice, traffic assignment, transport critique 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 M257.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance, toll roads, road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policies, contracting and privatization of transit services. Letter grading.

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 life cycle cost; vehicle demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growing importance of alternative transportation and automobile in the sustainability debate. Letter grading.

M224A. Introduction to Geographic Information Systems. (4) (Same as Urban Planning M260A.) Lecture, three hours; laboratory, one hour. Preparation: one graduate-level statistics course, familiarity with one of the packaged statistics programs. Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis of socio-economic data, data quality control, manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address a planning problem. Letter grading.

M224B. Advanced Geographic Information Systems. (4) (Same as Urban Planning M260B.) Lecture, four hours; laboratory, four hours. Requisite: course M224A or Urban Planning M260A. Principles and skills of geographic analysis and modeling; management, processing, and interpreting spatial data. Especially useful for students interested in environmental, demographic, sustainability, and transportation-related research. Scripts (Avenue), modeling (Spatial Analytic), network analysis, and transportation modeling (TransCAD). Letter grading.

C225. Controversies in Education Policy. (4) Lecture, three hours; outside study, nine hours. Focus on several controversial topics in contemporary education. Topics vary each year and include multiculturalism, affirmative action, “test score gap,” bilingual education, and school choice. Introduction to major arguments for and against major education policies and encouraging students to critically evaluate logic and evidence behind these policies. Concurrently scheduled with course C112. Letter grading.


M227. Nonprofit Sector, State and Civil Society. (4) (Same as Social Welfare M290S and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for social change, research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

CM230. Labor Markets and Public Policy. (4) (Same as Management M259C.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of major topics in economic analysis of labor markets and public policies toward the labor market. Topics include labor force trends and determinants, analyses of labor productivity, internal labor markets, human capital, union wage effects, unemployment, and minority and female-labor-market experience. Concurrently scheduled with course C142: S/U or letter grading.

CM231. Comparative Industrial Relations. (4) (Same as Management M255.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of major topics in economic analysis of labor markets and public policies toward the labor market. Topics include labor force trends and determinants, analyses of labor productivity, internal labor markets, human capital, union wage effects, unemployment, and minority and female-labor-market experience. Concurrently scheduled with course C144. S/U or letter grading.


C233. Employment Issues in California. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Drawing on resources of UCLA Business Forecasting Project, introduction to general features of California labor market, analysis of employment fluctuations and forecasting techniques including linkages between employment fluctuations in California and elsewhere in the country, and social issues related to labor market. Letter grading.

C234. Labor Markets and Social Policy. (4) Lecture, three hours; outside study, nine hours. Examination of analytical tools and conceptual models needed to understand policies designed to reduce inequality, improve health and quality of life 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; discussion, 90 minutes; outside study, nine hours. Introduction to and development of main ideas and themes that enter into analysis and execution of policies directed at control of substance abuse and its side effects; illustration and instantiation of main techniques and concepts of policy and management analysis. Concurrently scheduled with course C101. Letter grading.

C236. Democracy, Disobedience, and Dissent. (4) Lecture, three hours; outside study, nine hours. Theories of political and legal obligation and their critics; justified disobedience in response to inequality, injustice, and social exclusion; moral and religious pluralism as argument for both obedience and dissent. Concurrently scheduled with course C146. Letter grading.

C237. Political and Administrative Ethics. (4) Lecture, three hours; outside study, nine hours. Introduction to moral issues that commonly arise in public life. Ethical theories, political roles, conflict of interest, lying and deception, place of rhetoric in defending stand on issues, politics and violence. Letter grading.

C238. Community Organizing and Democracy. (4) Lecture, three hours; outside study, nine hours. Theoretical bases of community organizing tradition. Contribution of democratic theory to debates over organizing; practical input from guest lectures by organizers. Letter grading.

C239. Budget Politics, Social Policy, and Entitlement Reform. (4) Lecture, three hours; outside study, nine hours. Examination of politics of public budgets in the U.S., with emphasis on financing of 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. Concurrently scheduled with course C124. Letter grading.

M240. Theories of Regional Economic Development I. (4) (Same as Urban Planning M236A.) Lecture, three hours; laboratory, 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: Evolution of Regional Planning Doctrines. (4) (Same as Urban Planning M230.) Lecture, three hours. Critical and historical survey of evolution of regional planning theory and practice, with particular emphasis on relations between regional planning and developments within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

M242. Regional Development, Urbanization, and Industrial Policy. (4) (Same as Urban Planning M231.) 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. (4) (Same as Social Welfare M290U and Urban Planning M288.) 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 the 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.
M244. Transportation Planning. (4) (Same as Urban Planning M225.) Lecture, three hours. Examination of how planners analyze, manage, and operate transportation systems. Measuring system performance, intelligent transportation systems, transportation system demand management, parking management, freight movement and facilities, public transit evaluation and management, paratransit, bicycle and pedestrian planning, transportation for elderly and disabled. 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 of flow, change, and movement in world space and history. Concurrently scheduled with course C147. Letter grading.

M247. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Social Welfare M241F and Urban Planning M290.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Techniques of problem solving regarding substantive social welfare problems at community level. This form of community practice fills niche between the professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on the other. Letter grading.

C248. Rights and Wrongs of Affirmative Action. (4) Lecture, three hours; outside study, nine hours. Exploration of race-based affirmative action from moral, political, and social philosophy standpoint. Topics include race, discrimination, individual and group equality; different meanings of “diversity”; meritocracy and its critics; historical and future-based arguments; sociology of values; possibilities for moral compromise. Concurrently scheduled with course C125. Letter grading.

CM250. Environmental and Resource Economics and Policy. (4) (Same as Urban Planning M267.) Lecture, three hours. Requisites: courses 204 and 208, or Urban Planning 207 and 220B. Survey of ways economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists which bear on public policies. Concurrently scheduled with course C115. Letter grading.

M266. Advanced Topics in Health Economics. (4) (Same as Health Services M250.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-bom generation. Letter grading.

M267. Medicare Reform. (4) (Same as Health Services M252.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-bom generation. Letter grading.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Services M258.) Lecture, four hours. Requisites: Health Services 200A, 200B, M236. Advanced treatment of a number of topics in health economics, including mental health economics, pharmacoeconomics, and reimbursement issues between labor supply, welfare, and health. Letter grading.

M267. Medicare Reform. (4) (Same as Health Services M252.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-bom generation. Letter grading.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Services M258.) Lecture, four hours. Requisites: Health Services 200A, 200B, M236. Advanced treatment of a number of topics in health economics, including mental health economics, pharmacoeconomics, and reimbursement issues between labor supply, welfare, and health. Letter grading.

M269. Health Care Policy and Finance. (4) (Formerly numbered 269.) (Same as Health Services M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicaid and Medicare), the uninsured, and health insurance reform. Examination of health care financing, health and costs, consumer protection movement, and rise of competitive health care markets. Letter grading.

C270. Information Superhighway. (4) Lecture, three hours. Information Superhighway seen from a non-American viewpoint, considering its meanings, potential applications, applications, implications, economic, social, and cultural impacts, and public perceptions in a number of countries. Special emphasis on Western Europe, Canada, and Australia, with a look at Japan and China also. Opportunities for Africa and Latin America suggested, especially education, health, and other public services. Concurrently scheduled with course 201. Letter grading.

271. Urban Poverty, Workforce Development, and Public Policy. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. Examination of how urban labor markets function, particularly low-skill labor markets, and exploration of how public and private interventions affect outcomes for disadvantaged 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 new directions in workforce development. Letter grading.


M273. Building Stronger Communities for Los Angeles. (4) (Same as Community Health Sciences M279.) Lecture, four hours. Designed for graduate students. Introductory course for community-level building (FCOB) to introduce graduate students as well as community practitioners to range of topics, issues, and frameworks to help build stronger, more cohesive, and family-centered communities. Letter grading.

M280A. Research and Development Policy. (4) (Formerly numbered 280A.) (Same as Management M292A.) Lecture, three hours. Examination of research and development as a process and as an element of a goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing and forecasting technological futures. S/U or letter grading.

M280B. Growth, Science, and Technology. (4) (Formerly numbered 280B.) 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 population of firms in existing industries. S/U or letter 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.

291. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Techniques of policy analysis with applications: benefit and cost; optimization and constraint; risk, risk aversion, risk spreading; tax incidence, inductive effects, and deadweight loss; strategic interactions (games and negotiations). Emphasis on concept rather than computation. Letter grading.

292. Quantitative Policy Analysis. (4) Lecture, three hours. Requisites: courses 203, 208. Exploration of additional statistical and econometric tools (e.g., discrete choice analysis, methods to deal with endogeneity, structural and policy-relevant data) as follow-up to requisite courses. Application of statistical tools in conduct of analysis and evaluations of public policy initiatives and policy-relevant issues. Letter grading.

C293. Privatization, Regulation, and Public Finance. (4) (Same as Urban Planning M243.) Lecture, three hours; outside study, nine hours. Requisites: 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, financing, and service-level policies. Exploration of new regulatory roles; this trend implies for state and local governments. Letter grading.

294. Education Markets and Education Policy. (4) Lecture, three hours. Designed for graduate students. Provides set of tools that can be used to analyze pressing policy questions in field of education and some substantive background in policy issues of the day. Letter grading.


296. Seminars: Applied Policy Analysis. (4-5) Seminar, three hours; outside study, nine hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Two-term seminar in which students prepare major public policy projects and papers which are case studies of policy evaluation and implementation and are equivalent to professional master’s theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

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

596. Directed Studies. (2 to 6) Tutorial, to be arranged. Limited to graduate students. Individual programming for selected students to permit pursuit of a subject in greater depth. S/U or letter grading.
Dents a strong foundation in the discipline (Ph.D. requirements). It is designed to give students a strong foundation in the discipline while enabling them to acquire additional skills for advancing their professional careers.

Undergraduate Study

Political Science B.A.

Prepolitical Science Major

All students intending to major in Political Science must enroll as Prepolitical Science majors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269A Bunche Hall.

Preparation for the Major

Required: Four lower division courses from Political Science 10, 20, 30, 40, 50. These lower division courses are requisites to upper division courses and 10, 20, 40, and 50 are required in those fields designated as the concentration or distribution field. Students must also take Political Science 6 or one of the following statistics courses: Anthropology M80, Geography M40, Sociology M18, Statistics 10.

Transfer Students

To be admitted as Political Science majors, transfer students with 90 or more units must complete the following courses prior to admission to UCLA: one statistics course and four courses from political theory, world politics, political economy, American politics, or comparative politics.

Transfer Students

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The Major

Required: Ten upper division courses (40 units) selected from Political Science 102 through 199 taken for a letter grade. Students are also required to complete four upper division courses (16 units) in one or two of the following social sciences: anthropology, communication studies (only Communication Studies 160), economics, geography, history, management (only Management 150, 190), psychology (except Psychology 115, 116), sociology. These courses must be 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 four fields: (I) political theory, (II) international relations, (III) American politics, and (IV) comparative politics.

In fulfilling the requirement of 10 upper division political science courses, students must satisfy the following:

1. A concentration in one field by completing the lower division course and at least four upper division courses in that field
2. A distribution of the lower division course and two upper division courses in each of two other fields (four upper division courses)
3. Two additional elective courses in political science to comprise the total of 10

Field Concentration Requirements

The lower division course is requisite to upper division courses in those fields designated as the concentration field and the two distribution fields for majors. Specific requirements for the field concentrations are as follows:

I. Political Theory: Political Science 10 and any four courses in Field I
II. International Relations: Course 20 and any four upper division courses in Field II
III. American Politics: Course 40 and any four courses in Field III
IV. Comparative Politics: Course 50 and any four additional courses in Field IV. Course 118 may also be applied toward concentration in this field

Courses 119, 139, 149, and 169 may be applied no more than twice toward the field concentration requirement. No more than three of these courses may be applied toward the major.

Courses 195A, 195B, 195C, and 199 may not be applied toward either the concentration or distribution requirement.

Political Science majors should be aware that the upper division course requirements in the major (56 units) do not meet the upper division requirement of 60 units for graduation. Additional upper division units must be taken to reach the 60-unit total.

Undergraduate Seminars

Each term the department offers a series of seminars (Political Science C197A through C197D) in each field. The requisites are two upper division courses in the field in which the seminar is offered, a 3.25 average at the upper division level in political science, or discretion of the instructor. These courses may be applied toward either the concentration or distribution requirement, and students who qualify are encouraged to take them.

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 and take at least one seminar course in the Political Science C197 series before they enter the honors program or course 195A.

Students wishing to qualify for graduation with departmental honors must complete the following: (1) courses 195A, 195B, 195C, in which a senior thesis is written; (2) eight upper division
courses (excluding courses 119, 139, 149, and 169) distributed as follows: four courses in one field and four additional courses, two in each of two other fields; (3) four upper division courses in one or two of the social sciences other than political science.

**Political Science Minor**

The Political Science minor introduces students to political 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, 4269A Bunche Hall.

**Required Lower Division Courses (10 units):**

Any two lower division political science courses.

**Required Upper Division Courses (20 units):**

Any five upper division political science courses.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Political Science.

**Political Science**

**Lower Division Courses**

6. Introduction to Quantitative Research. (5) Lecture, three hours; discussion, one hour. 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 an aid in analyzing data from various fields of political science, among them comparative politics, international relations, American politics, and public administration. P/NP or letter grading.

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.

20. World Politics. (5) Lecture, three hours; discussion, one hour. Required of all students concentrating in Field II. Introduction to problems of world politics. P/NP or letter grading.

30. Introduction to Political Economy. (4) Lecture, three hours; discussion, one hour. Introduction to political economy, especially application of economic reasoning to political and social phenomena. 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. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries. P/NP or letter grading.

88A-B8D. Lower Division Seminars. (4 each) Seminar, three hours. Limited to freshmen/sophomores. Opportunity to enhance writing, verbal, and reasoning skills. General introduction to a subfield of a major area, or intensive exploration of a particular theme or topic. Variable topics; consult Schedule of Classes for topics to be offered in a specific term. May not be repeated for credit except by students who receive a grade of C–, D, or F. P/NP or letter grading.

88A. Political Theory. 88B. International Relations. 88C. Politics. 88D. Comparative Politics.

**Upper Division Courses**

102. Statistical Analysis of Political Data. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required of course 6. Designed for juniors/seniors. Courses in fundamentals of survey research as a method. 104A. Sampling theory and methods, writing of questions, questionnaire construction, and interviewing. Attitudes, attitude measurement, and analysis of variance, and multiple regression and correlation. Statistical techniques and topics illustrated with applications to a variety of political data.

104A-104B. Introduction to Survey Research. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Required of course 6. Designed for juniors/seniors. Courses in fundamentals of survey research as a method. 104A. Sampling theory and methods, writing of questions, questionnaire construction, and interviewing. Attitudes, attitude measurement, and analysis of variance, and multiple regression and correlation. Statistical techniques and topics illustrated with applications to a variety of political data.

104B. Conducting a survey. Development of survey questionnaire, designing a sample, collecting interview data, and analyzing data. Performance of computer-aided analysis of some part of data and submission of written report of that research.

M105. Economic Models of Public Choice. (4) (Same as Economics M136.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation for any lower division political science course. Enforced requisite: Economics 11. Designed for juniors/seniors. Analysis of methods and consequences of arriving at collective decisions through political mechanisms. Topics include free-rider problem, voting and majority choice, demand revelation, and political bargaining.


M107. Women and Politics. (4) (Same as Women's Studies M117.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of the rapidly growing body of empirical and theoretical scholarship on women and politics in both national and international contexts. Topics may include women's movement in the U.S. and globally, women's electoral participation, representation of women in Congress and in legislatures worldwide; women as heads of government and state, feminist critiques of political science; women and human rights; ERA struggle for suffrage; mothers as political actors; women and the military; women, development, and globalization. May be applied toward Field I, III, or IV. P/NP or letter grading.

**Field I: Political Theory**

M111A-111B-111C. History of Political Thought. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of selection of major authors, issues, and arguments in contemporary political theory.

112A. 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 political theory.

113. Problems in 20th-Century Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study and interpretation of theorists who have focused their analyses on social and political problems of the 20th century.

114A-114B. American Political Thought. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of American political thinkers from the Puritan period to 1865. 114B. Exposition and critical analysis of American political thinkers from 1865 to the present.

M114C. African American Political Thought. (4) (Same as Afro-American Studies M114C.) Lecture, three or four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M114D. African American Freedom Narratives. (4) (Same as Afro-American Studies M114D.) Lecture, three or four hours; discussion, one hour (when scheduled). Historical, psychological, and thematic interpretation of selected narratives and storytelling in African American culture and politics. P/NP or letter grading.

115A. Ethics and Governance. (4) (Formerly numbered M115A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of ethics and governance, taking case-based approach, mixing normative and positive perspectives. Is action X morally right or wrong? How do people reason about whether action X is morally right or wrong? How do governance structures influence how people reason about whether action X is morally right or wrong? How can we design governance structures that encourage people to act ethically, contribute to public goods, and lead productive and fulfilled lives? May be applied toward Field I or III. P/NP or letter grading.

116. 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.
117. Jurisprudence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of American and world 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. Political Violence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one or several different uses of violence in the revolutionary process: demonstrations, mass uprisings, coup d'état, assassination, and terrorism. May be applied toward either Field II or IV.

119. Special Studies in Political Theory. (4) Formerly numbered 119A-119Z.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course in Field I. Requisite: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to political theory. Sections offered on regular basis, with topics announced in preceding term. Courses 119, 139, 149, and 169 may be applied no more than twice toward field concentration requirement. No more than three of these courses may be applied toward the major. P/NP or letter grading.

Field II: International Relations

120. Foreign Relations of the 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.

121. Studies in Formulation of American Foreign Policy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of formation of American foreign policy with respect to individual cases. Consult Schedule of Classes for topics to be offered in a specific term.

122A. World Order. (4) (Formerly numbered 122.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of nature and place of international law in conduct of international relations. 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.

125. Arms Control and International Security. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Arms control in context of international security in the nuclear age. Nuclear arms race; relationship between deterrence doctrine and war; roles of technology and ideology; nuclear proliferation; outer space.

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-127B. Atlantic Area in World Politics. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 127A. Western Europe. External relations of United Kingdom, West Germany, France, Italy, and other European members of NATO, in regard to European security and balance of power. Relations between the U.S. and Europe. Requisite: course 127A. 127B. Eastern Europe. Relations between the U.S. and Western European members of the Atlantic Alliance, in context of U.S./Soviet relations.


128B. International Relations of Post-Communist Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 20, 125A. Designed for juniors/seniors. Survey of foreign policy of post-Communist Russia, with special emphasis on Russia's relations with NATO, the former communist states of East Central Europe, China, and the Commonwealth of Independent States.

129. Comparative Foreign Economic Policy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of foreign trade, monetary, and investment policies of France, Italy, Japan, and Federal Republic of Germany since 1945.

130. 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.

131. Latin American International Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major problems of Latin American international relations and organization in recent decades.

132A-132B. International Relations of the Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Contemporary regional issues and conflicts, with particular attention to inter-Arab politics, Arab-Israeli problem, and Persian Gulf area. 132B. Role of the great powers in the Middle East, with emphasis on American, Soviet, and West European policies since 1945.

133. International Relations of Sub-Saharan Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Contemporary regional issues and conflicts; foreign policies of African states; role of external powers.

134. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Processes and models of individual and group decision-making. Impact of strategic interaction and situational factors on foreign policy decision making. Implications for policy choice of tools of statecraft (i.e., threats/promises, military/economic/diplomacy), P/NP or letter grading.

135. International Relations of China. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Relations of China with its neighbors and the other powers, with emphasis on contemporary interests and policies of China vis-à-vis the U.S. and Soviet Union.

136. International Relations of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Foreign policies of Japan and interests and policies of other countries, particularly the U.S., as they relate to Japan.

137A-137B. International Relations Theory. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors.

137A. Western Europe, External relations of United Kingdom, West Germany, France, Italy, and other European members of NATO, in regard to European security and balance of power. Relations between the U.S. and Europe. Requisite: course 127A. 137B. Eastern Europe. Relations between the U.S. and Western European members of the Atlantic Alliance, in context of U.S./Soviet relations.

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) (Formerly numbered 139A-139Z.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: two courses in Field II, or course 20 and one course in Field II. Requisite: course 20. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to international relations. Sections offered on regular basis, with topics announced in preceding term. Courses 119, 139, 149, and 169 may be applied no more than twice toward field concentration requirement. No more than three of these courses may be applied toward the major. P/NP or letter grading.

139A. Political and Economic Issues in Proliferation of Nuclear Weapons. (4) (Same as Economics M188A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Interdisciplinary approach to problem of nuclear proliferation. Economic aspects of acquisition of nuclear weapons and economic aspects of nuclear energy treating technological, bargaining, and stability issues. Letter grading.

139B. Nuclear Weapons: Critical Decisions. (4) (Same as Environment M165, Honors Collegium M119, and Policy Studies M116.) Lecture, three hours. Examination of critical decisions regarding nuclear weapons, starting with President Roosevelt's decision to build atomic bomb and ending with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe. Letter grading.

Field III: American Politics

140A-140B. American Politics. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. 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 commentaries.

M141A-M141D. Electoral Politics. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors.

141A. Political Psychology. (4) (Same as Psychology M148.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of political behavior, political socialization, personality and politics, racial conflict, and psychological analysis of public opinion on these issues.

140/140B. National Institutions. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). 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 commentaries.

M141A-M141D. Electoral Politics. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors.
141B. Public Opinion and Voting Behavior. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Study of character and formation of political attitudes and public opinion. Role of public opinion in elections, relationship of political attitudes to the vote decision, and influence of public opinion on public policy formulation.

141C. Political Behavior Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 6, 40, 141B. Designed for juniors/seniors. An overview of quantitative methods in study of political behavior, especially in relation to voting patterns, political participation, and techniques of political action. Students conduct computer-aided analyses of issues and problems treated in course 141B and similar courses.

M141D. Mass Media and Elections. (4) (Same as Communication Studies M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Assessment of manner in which Americans’ political beliefs, choices, and actions are influenced by mass media presentations, particularly during election campaigns. Topics include processes of political attitude formation and change, different types of media “effects,” and role of the media in the American political process. P/NP or letter grading.

142A-142B-142C. Political Parties and Interest Groups. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. 142A. Political Parties. 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 mission, party policy and political finance, and party formulation practices. 142B. Politics of Interest Groups. Systematic investigation of role of political interest groups in governmental process, with attention to their organization, interest, and politics of such groups to goals and functions of various types of groups and to structure and tactics of influence. 142C. Government and Labor. Labor force and nature of trade union; regulation of labor relations; programs to encourage full employment and to mitigate unemployment; protective labor legislation.


144A-144B. Ethnic Politics. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors.

144A. Chicano/Latino Politics. (4) (Formerly numbered M144A.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper division course on race or ethnicity from history, psychology, or sociology. Requisite: course 40. Designed for juniors/seniors. Introduction to political economy of racial domination in the U.S., concentrating on study of Mexican origin communities. Emphasis on identifying and explaining historically changing relationship between class, race, and power by studying interaction between state policies and practices, class and racial stratification systems, and cultural codes and modes of ideological discourse in each historical period. Letter grading.

M144B. African American Politics. (4) (Same as Afro-American Studies M144.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper division course on race or ethnicity from history, psychology, or sociology. Requisite: course 40. Course M144A is not requisite to M144B. Emphasis on dynamics of minority group politics in the U.S., touching on conditions facing racial and ethnic groups, with black Americans being the primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of the black community, (2) to analyze implications for black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

145A-145D. Public Law and Judicial Process. (4 each) 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 French, Spanish, and U.S. and remain relevant today. P/NP or letter grading.


145C. Constitutional Law — Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Protection of civil and political rights and liberties under the constitution. P/NP or letter grading.

145D. Judicial Oversight of the 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-146F. Organization Theory, Public Policy, and Administration. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: course 40; two courses in Field III. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to American politics. Sections offered on regular basis, with topics announced in preceding term. P/NP or letter grading.

146B. 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 the U.S.; exploration of why government agencies behave as they do. Focus on interest representation and administration, with emphasis on ideological, bureaucratic, and political factors; 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.

146C. Governing the Bureaucracy in the U.S. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Relationship between elected officials and administrators in the U.S., especially efforts of elected and appointed officials to monitor and control behavior of those in “permanent government” (career bureaucrats). P/NP or letter grading.

146D. Theories of Organization and Decision Making. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of theoretical frameworks for studying bureaucratic decision rules, with emphasis on ideologies, values, behavioral patterns, and concepts of organization. P/NP or letter grading.

146E. National Policy Development and Implementation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Investigation of complex process of policy development and implementation in the U.S., including roles of federal, state, and local agencies as well as private organizations. Sections offered on particular policy areas, with topics announced in preceding term. P/NP or letter grading.

146F. Politics, Ethics, and Business. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of political issues, interests, and institutions that impose constraints on and provide opportunities for business. Ethical issues that arise in external environment of business and its internal operations. Examples of topics include government regulation, product liability, affirmative action, lobbying Congress, exporting hazardous waste to developing countries. P/NP or letter grading.

146G. Social Life of Information. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reduction of information moves from those who have it to those who need it. Information flows in groups, organizations, and mass public. Analysis of how decision-making structures in groups and organizations shape flow of information and how flow of information influences group and organizational performance. How mass media create a “public issue life cycle.” P/NP or letter grading.

149. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 40; two courses in Field III. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to American politics. Sections offered on regular basis, with topics announced in preceding term. P/NP or letter grading. No more than three of these courses may be applied toward the major.

Also see course 117

Field IV: Comparative Politics

151A-151B-151C. African Politics. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Letter grading:
151A. Government and Politics of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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.

151B. Political Economy of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of interactions 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. Consult Schedule of Classes for topics to be offered in a specific term. Letter grading.

152A-152B-152C. Government and Politics of West European Countries. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Constitutional and political structure and development of one or more states in Europe, especially Britain, France, or Germany, with particular attention to contemporary problems. P/NP or letter grading. 152A, Britain; 152B, France; 152C, Germany.

153A-153B. Comparative Government and Politics of Western Europe. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consult Schedule of Classes for topics to be offered in a specific term. Letter grading.

153A. West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Constitutional and political structure and development of West European states, with particular attention to contemporary problems. P/NP or letter grading.

153B. Game-Theoretic Approach to West European Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Course 153A is not requisite to 153B. Designed for juniors/seniors. Uses of elementary game theory to investigate post-World War II Western European politics. Social and political forces, and political institutions. Particular emphasis on study of three West European countries — United Kingdom, France, and Federal Republic of Germany. Consideration of governmental structures and comparisons with the U.S. P/NP or letter grading.

154A-154B. Government and Politics in Latin America. (4-4) Lecture, three or four hours; discussion, one or four hours (when scheduled). Designed for juniors/seniors. Comparative study of government and political development, organization, and practices.

154A. States of Middle America; 154B. States of South America.

155. Advanced Pluralist Democracies. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main features and basic problems of economically advanced democracies, and comparative analysis of the current trend, topic by topic. Emphasis on cross-Atlantic comparisons, not only political but also sociological.

156A-156D. Government and Politics of Post-Communist States. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

156A. Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical diversity of forms of government and politics in Russia, with special attention to the legacy of the Soviet Union. P/NP or letter grading.

156B. Eastern Europe. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of institutions and political processes in selected post-Communist states of Eastern Europe. P/NP or letter grading.

156C. Post-Soviet States. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of institutions and political processes in selected post-Communist countries other than Russia. P/NP or letter grading.

156D. Political Economy of Post-Communist Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focused study of interaction between transitions to democracy and to the market in selected post-Communist countries, with emphasis on development of general theories of political and economic reform. P/NP 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. Comparative study of government in the Arab States, Turkey, Israel, and Iran. P/NP or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Survey of political environment in major Southeast Asian states. Use of comparative analysis to address major problems confronting region, including democratization, economic growth, drug trade, deforestation, and security threats. Letter grading.

159A-159B. Government and Politics of China. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors.

159A. Chinese Revolution and Age of Mao Zedong. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of modern Chinese politics from decline of Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socioeconomic foundations and political dynamics of revolution in modern China.


161. 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 regimes, movements, and ideologies; political strategies of Islamic activism. P/NP or letter grading.

162. Comparative Analysis of Government Institutions. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of major institutional structures such as presidentialism vs. parliamentarism, unicameralism vs. bicameralism, two-party vs. multiparty systems, federal vs. unitary systems, plurality vs. 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/NP or letter grading.

167. Comparative Development and Administration. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Comparative study of modes of political and economic development in the world today. Relations between industrial and nonindustrial societies in light of current debate about imperialism.

168. Comparative Policy Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: two courses in Field IV, or course 50 and one course in Field IV. Designed for juniors/seniors. Major approaches to study of comparative politics. Concepts and methodology of comparative analysis. Letter grading.

169. Special Studies in Comparative Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: two courses in Field IV. Designed for juniors/seniors. Intensive examination of one or more specific problems appropriate to comparative politics. Sections offered on regular basis, with topics announced in preceding term. Courses 119, 139, 149, and 160 may be applied no more than twice toward field concentration requirement. No more than three of these courses may be applied toward the major.

Special Studies

194. Selected Topics in Political Science. (2 to 4) Seminar, three hours. Designed for juniors/seniors. Seminar on selected current topics of interest in political science. Consult Schedule of Classes for topics and instructors. May be repeated for credit; may be applied toward major but not to concentration or distribution requirement. P/NP or letter grading.

195A-195B-195C. Honors Seminars and Thesis. (4-4-4) Seminar, four hours. Preparation: one course in C197 series, 3.5 grade-point average in upper division political science courses, eligibility for Letters and Science honors. Course 195A is requisite to 195B, which is requisite to 195C. Designed for juniors/seniors. One-year honors seminar and thesis-writing sequence. Students entering course 195A are expected to have some experience in writing research papers and to have in mind a research topic suitable for treatment at length and in depth.

195A. (4) Seminar, four hours. Students define their research topic, select a suitable research method, determine appropriate sources of information, prepare research proposal, find a thesis director, begin their research, and submit progress reports or preliminary drafts. Class sessions emphasize critical and constructive discussions of students’ topics, methods, and problems in research, as well as general considerations of political science research topics and methods of current or continuing interest. Students also meet privately with instructor to discuss research progress. Letter grading.

195B-195C. (4) Seminar, four hours. Requisite for course 195B: course 195A; for course 195C: course 195B. Writing of honors thesis under direction of a faculty member. Thesis is read by appropriate field committee and graded highest honors, honors, or no honors. In Progress (course 195B) and letter (course 195C) grading.


Graduate Courses

Formal Theory and Quantitative Methods


200AL. Statistical Methods Laboratory I. (4) Laboratory, three hours. Corequisite: course 200A.


200D. Quantitative Methods in Politics. (4) Seminar, three hours. Preparation: knowledge of calculus and matrix algebra. Requisites: courses 200A, 200AL. Focus on logical and mathematical structure underlying some statistical methods that are frequently used in political science. Emphasis on understanding the structure of the models rather than on gaining added experience using them to analyze data.

M200E. Advanced Regression Analysis. (4) (Same as Psychology M256.) Seminar, three hours. Diagnostic, robust regression, cross validation, resampling, outliers, missing data, geometry of regression, validity of assumptions, categorical dependent variables, transformation of variables. Access to Macintosh computer very helpful.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools with which to analyze political phenomena. Model building, collective goods, unanimity and the social contract, voting rules, paradoxes and impossibility theorems, stability, individual liberty and decentralization, strategic manipulation representation, vote trading.

201B. Theory of Collective Choice. (4) Seminar, three hours. Recommended preparation for political science students: course 201A. Causal modeling 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.


203B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Requisite: course 203A. Continuing survey of microeconomic techniques used in formal political science, with focus on market failures and on modeling individual choice in nonmarket situations. Specific topics include externalities, public goods and allocation mechanisms, collective action, spatial models, structure-induced equilibrium, and information asymmetries.

204. Game Theory in Politics. (4) Seminar, three hours. Preparation: knowledge of applied mathematics titled 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.

205. Game Theory. (4) (Same as Economics M215B.) Lecture, three hours. Preparation: knowledge of calculus and 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. SU or letter grading.

205B. Topics in Applied Game Theory. (4) (Same as Economics M215B.) Lecture, three hours. Preparation: knowledge of calculus and 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. SU or letter grading.

206D. Multivariate Analysis with Latent Variables. (4) (Same as Psychology M257.) Lecture, three hours. Preparation: knowledge of multivariate analysis. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling; testing via analysis of moment structures. Measurement models, such as confirmatory, higher-order, and structural-means factor analytic models. Structural equation models, including path and simultaneous equation models. Computer implementation. Applications.

M208E. Bayesian Econometrics. (4) (Same as Economics M232A.) Lecture, three hours. Requisites: Economics 231A, 231B. Subjective probability, introduction to decision theory, maximum likelihood, analysis of regression, sensitivity analysis, simplification of models, criticism. SU or letter grading.

209. Special Topics in Formal Theory and Quantitative Methods. (4) Seminar, three hours.

Political Theory

210A-210B. Introduction to Political Theory. (4-4) Lecture, three hours. Exploration of major texts and issues in political theory. 210A. Classical and Medieval Formulations from Plato through Aquinas; 210B. Early Modern Period from Machiavelli through the Enlightenement.

M211. Morality of Capitalism. (4) (Same as Management M293B.) Lecture, three hours. Examination of major philosophical writings that defend or criticize capitalism on basis of principles of right conduct and just social arrangements (i.e., on moral grounds).

212. Seminar: Political Theory. (4) Seminar, three hours.

214. Political Theory in Transnational Context. (4) Seminar, three hours; discussion, one hour (when scheduled). Critical analysis of selected text from postcolonial, spatial, feminist, post-positivist and post-structuralist theories that assess impact of processes of globalization on such major concepts and problems of traditional social and political theory as sovereignty, citizenship, rights, community, representation, and democracy. SU 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 philosophers (Rawls, Nozick, Nussbaum, etc.) in light of alternatives which have been proposed to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). SU or letter grading.

C217. Selected Texts in Political Theory. (4) Discussion, three hours. Critical examination of major texts in political theory, with particular attention to their philosophic system, their relations to contemporary political and intellectual currents, and importance of the system for present-day political analysis. May be concurrently scheduled with course C197A.

C218. Selected Topics in Political Theory. (4) Discussion, three hours. Critical examination of a major problem in political theory. May be concurrently scheduled with course C197A.

219. Workshop: Political Theory. (4) Discussion, three hours.

International Relations

220. International Relations Theory. (4) Discussion, three hours. Approaches to and central problems of international relations theory.

C221. Advanced International Relations Theory. (4) Discussion, three hours. Introduction to contemporary problems in international relations theory. May be concurrently scheduled with course C197B.

222. Seminar: Strategic Interaction. (4) Seminar, three hours. A strategic move influences 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 deterrence. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.

C223. Politics and Strategies of Modern War. (4) Seminar, three hours. Analysis of various national security systems and their military/technical and political dimensions. May be concurrently scheduled with course C197B.

225. American Foreign Policy. (4) Discussion, three hours. Discussion of approaches used to explain foreign policymaking at the individual, small group, bureaucratic, and domestic politics levels. Application to selected cases in American foreign policy.
246A. Western European Politics. (4) Seminar, three hours; discussion, one hour (when scheduled). May be concurrently scheduled with course C197D.

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.

247. Politics of the Soviet Union and Post-Soviet Region. (4) Seminar, three hours; discussion, one hour (when scheduled). Discussion seminar surveying political evolution of Soviet Union and its transformation.

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.

250. Political Economy of Economic Reform. (4) Discussion, three hours. Some familiarity with economics helpful. Political and economic arguments for economic reform and consideration of political issues that arise from this process. Letter grading.

251. Political Economy of Economic Reform. (4) Discussion, three hours. Surveys various theoretical approaches to international political economy and comparative politics.

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. Analysis of political content 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). Comparative institutional analysis. 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. parliamentaryism, unicameralism vs. bicameralism, party-plurality vs. party-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 compartmentalized.

255. Seminar: Political Change. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization.

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.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics.

258. Selected Topics in Comparative Politics. (4) Discussion, three hours. Analysis of implications of major political problems in comparative politics.

American Politics

260A. Survey Course in American Politics: Political Parties and the Electoral Process. (4) Discussion, three hours.

260B. Survey Course in American Politics: American Political Institutions. (4) Discussion, three hours.

M261A. Proseminar: Political Psychology. (4) (Same as History M236A and Psychology M228A.) Discussion, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group dynamics, political communication, and elite decision making.

C21B. Mass Attitudes and Political Behavior. (4) Discussion, three hours. Requisite: course 141B or 260A. Analysis of development and change of political attitudes in mass public and their relationship to voting, protest, and violence. May be concurrently scheduled with course C197C.

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, evaluation of "media effects" research, reporting and advertising as determinants of election outcomes, adversarial versus referential journalism; and analyses of media bias.

M261D. Seminar: Political Psychology. (4) (Same as Psychology M228C.) Discussion, three hours. Requisite: course M261A or Psychology 220A. Examination of political behavior, political socialization, racial conflict, political movements, and public opinion.

262. Political Parties. (4) Discussion, three hours. Critical examination of literature on party systems and organization. Special attention to political functions, electoral campaigns, and party cadres. May be concurrently scheduled with course C197C.

264. Politics and Society. (4) Discussion, three hours. Application of selected classical and contemporary sociological theories to politics. May be concurrently scheduled with course C197C.

265. Politics and Economy. (4) Discussion, three hours. Analysis of theoretical and practical relationships between economic organization and governmental institutions. Development and political implications of the market system, banking and finance, corporate enterprise, and organized labor.

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.


269. Seminar: Political Behavior. (4) Seminar, three hours.

C270. Legislative Behavior. (4) Discussion, three hours. Analysis of major approaches to study of representative institutions, with special emphasis on assumptions, concepts, methods, and theoretical implications associated with each approach. May be concurrently scheduled with course C197C.

271. Executive Politics and the Presidency. (4) Discussion, three hours. Analysis of executive organization and leadership, with emphasis on the American Presidency. Special attention to theories of organization and personality and relationship between the executive and other institutions and groups. May be concurrently scheduled with course C197C.

272. Political Environment of the Federal Executive. (4) Discussion, three hours. Examination of political environment of the federal executive in the U.S. Special attention to executive relations.

273. American Political Development. (4) Discussion, three hours. National political institutions in historical perspective, theories of state building, state-society relations, political culture.


C279. Seminar: Public Law. (4) Seminar, three hours. May be concurrently scheduled with course C197C.
PSYCHIATRY AND BIOBEHAVIORAL SCIENCES

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Special Studies

290. Modern Political Economy. (4) Discussion, three hours. Discussion of implications for understanding politics of the thinking of politicians, bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macroeconomic models, forms of political participation, the state, government regulation, growth of government, bureaucratic politics, policy inflation.

M291A-M291B. Social Theory and Comparative History. (4-4) Same as History M203A-M203B and Sociology M296A-M296B.) Colloquium, three hours and one-half hour every other week. Introduction to historically rooted social theory and theoretically sensitive history, following the program of the Center for Social Theory and Comparative History. Each course may be taken independently for credit.


293. Great Ideas in Social Sciences. (2) Seminar, two hours. Vehicle for faculty and visitors to teach research seminars of variable length. Special training opportunities on advanced quantitative methods, including complexity theory, agent-based modeling, experimental economics, social cognitive neuroscience, and evolutionary psychology, to be offered at irregular intervals. May be repeated for credit. S/U grading.

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

495. Teaching Political Science. (4) Seminar, to be arranged. Seminar in teaching techniques, including evaluation of each student's own performance as a teaching assistant. Normally to be taken by all new teaching assistants in first term of their assistantships. May be taken only in term in which students are teaching assistants. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

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

596. Directed Individual Study or Research. (2 to 4) Tutorial, to be arranged. May be applied only three times toward minimum course requirement in first two years. May be repeated.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated, graded on credit/no credit basis.

Scope and Objectives

The Department of Psychiatry and Biobehavioral Sciences offers interdisciplinary courses related to the mental health professions of the biobehavioral sciences in addition to its programs for psychiatry interns and residents and for medical students. Enrollment in department courses is limited to registered UCLA students, students registered in programs officially affiliated with UCLA, and students enrolled concurrently through UCLA Extension. Students who meet these requirements, but who are not affiliated with a departmental training program, must also meet required course requisites determined by specific educational programs. Additional information is available from the department office.

Developmental Disabilities Immersion Program

The Developmental Disabilities Immersion Program (DDIP), cosponsored by the Department of Psychology, the Department of Psychiatry and Biobehavioral Sciences, and the Office of Instructional Development—Center for Experiential Education and Service Learning (CEESL), provides a community learning environment for undergraduate students who devote two quarters to the intensive study of developmental disabilities. Each year a group of 30 students is selected for the program which runs during Winter and Spring quarters. Students participate in courses, fieldwork, and research at selected University and community facilities serving persons with developmental disabilities. Required courses include Psychology/Psychiatry M180A, M180B, M181A, M181B. Courses are designed to foster discussions integrating students’ field and research experiences. Lectures and discussions explore biological, psychological, and social questions concerning causes and treatment of developmental disabilities. Also covered is an analysis of programs for the care and training of individuals with developmental disabilities. The fieldwork component gives students the opportunity to apply theories and concepts learned in their coursework to actual settings involving individuals with developmental disabilities. Students also undertake a two-quarter research project under the guidance of a UCLA faculty member. Students interested in the program should contact the DDIP coordinator at the Center for Experiential Education and Service Learning, 160 Powell Library, (310) 825-7867, for information regarding admission and an application.

Clinical Psychology Internship

The department offers a 12-month Clinical Psychology Internship, which is a Graduate Division certificate program. Students enrolled in clinical psychology programs at APA-approved universities are eligible to apply. Applications are accepted through December 1. The primary goals of the internship are to provide a year of intensive exposure to a wide variety of clinical and human services experiences and to maximize the personal growth of each professional. Students interested in this certificate program should contact David Crawford, CB-745 NPISH, (310) 206-8100, e-mail: dcrawford@mednet.ucla.edu.

Information on clinical practicums which are offered in conjunction with other educational institutions and UCLA departments may be obtained from the department office.

Psychiatry and Biobehavioral Sciences

Lower Division Courses

88. Lower Division Seminar: Special Topics in Psychiatry and Biobehavioral Sciences. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in psychiatry and biobehavioral sciences approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

98D. Violence in America. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement. Freshmen/sophomores preferred. Survey of scope and variety of violence in the U.S., including comparisons with other developed countries. Epidemiology of various life-threatening behaviors; consideration of possible causes and potential approaches to reduction, intervention, and prevention of both interpersonal and collective violence. Letter grading.

98R. Recovery from Madness. (4) Seminar, four hours. Enforced requisite: satisfaction of Subject A requirement. One percent of world’s population suffers from schizophrenia, the most disabling of mental disorders. Recent advances in diagnosis, treatment, and rehabilitation have opened pathways to recovery from this brain disorder. Students share experience of schizophrenia and trace biobehavioral stepping stones to overcoming symptoms and disability through readings, videos, and live interactions with persons who have recovered from this illness. Letter grading.

98T. Two Centuries of Psychiatric Thought. (4) Seminar, three hours. Enforced requisite: satisfaction of Subject A requirement. Examination of key historical events, controversies, and personalities, some well-known and others forgotten. Participation in ongoing psychiatric history projects that show promise of actually influencing contemporary neuroscience and conquest of mental illness. Letter grading.

Upper Division Courses

M180A. Contemporary Problems in Mental Retardation. (4) (Same as Psychology M180A.) Lecture, three hours. Requisites: Psychology 10, 100A, and 127 or 130 or 133A through 133I. Corequisites: course M181A. Limited to Immersion Program students. Presentation of concepts, issues, and research techniques in the area of mental retardation. Biological, psychological, and community questions concerning causes and treatment of developmental disabilities, as well as systems for care and training of retarded individuals. Lectures, directed reading, and discussion. P/NP or letter grading.

M180B. Contemporary Issues in Mental Retardation. (4) (Same as Psychology M180B.) Lecture, three hours. Requisite: course M180A. Corequisites: course M181B. Limited to Immersion Program students. Psychosocial issues in mental retardation relating literature to ongoing field experiences through lectures, discussions, media, and six student papers. P/NP or letter grading.


185. Social Psychology of Urban Student Education. (6) Lecture, 90 minutes; discussion, 90 minutes; fieldwork, six to eight hours. Designed for juniors/seniors. Students interested in study of urban youth and their environment acquire comprehensive and first-hand knowledge of factors affecting these students’ achievement. Field study component requires students to intern with youth in schools and after-school programs. P/NP or letter grading.

M191. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M191, Neuroscience M130, Physiological Science M181, and Psychology M117J.) Lecture, three hours. Requisite: Neuroscience M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 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.

199. Special Studies in Psychiatry. (2 to 4) 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 are available in Office of Education, CB-237/CB-238 NPISH.

Graduate Courses

207A-207B-207C. Hypnosis Seminars. (2-2-2) Experiential seminars to prepare mental health professionals for adult and child clinical applications, involving didactics, demonstrations, trainee practice, and feedback. Following training in inductions and development of classic hypnotic phenomena (e.g., age regression, hypnoanalysis, self-hypnosis), focus on psychotherapeutic applications, including direct symptom removal, behavioral methods, and hypnosis. Emphasis on acquiring skills for clinical practice. S/U grading.


M210. Seminar: Psychocultural Studies and Medical Anthropology. (4) (Same as Anthropology M234.) Seminar, three hours. Devoted to present state of research in psychocultural studies. Survey of work in child development and socialization, personality, psychobiology, transcultural psychiatry, deviance, learning, perception, cognition, and psychocultural perspectives on change. S/U or letter grading.

M213. The Individual in Culture. (4) (Same as Anthropology M235.) Seminar, three hours. Designed for graduate students. Consideration of psychiatric topics in cross-cultural perspectives, such as studies of drug use, deviance, suicide, homicide, behavioral disorders, "culture specific" syndromes, non-Western psychiatries, and questions of "sick" society. 4 hours laboratory.


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 of scientific principles, presentation of physical basis of medical illness, covering epidemiology, nosology, assessment, health care delivery systems, basic genetics, nutrition, direct care, and special deficits. Presented in interdisciplinary framework as generic information independent of discipline. S/U grading.

M222. Transcultural Psychiatry. (4) (Same as Anthropology M234P.) Lecture, three hours. Consideration of psychiatric topics in cross-cultural perspectives, such as studies of drug use, deviance, suicide, homicide, behavioral disorders, "culture specific" syndromes, non-Western psychiatries, and questions of "sick" society. 4 hours laboratory.


M251. Mental Health Services. (4) (Same as Health Sciences M241U.) Lecture, three hours. Requisites: Health Sciences 200A, 200B. Designed for doctoral students. Survey of contemporary American delivery of health services to emotionally and mentally ill and retarded. Analysis of characteristics of such services, with historical background of their evolution and projections of their future prospects. Letter grading.


237. Seminar: Behavioral Neuroimmunology. (1) Seminar, one hour per month; discussion, 30 minutes per month. Each seminar is based on a set of lectures presented the second and Wednesday of each month throughout academic year by invited speakers. S/U grading.

M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychology M236.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M240. Assessment and Treatment of African American Families. (3) (Same as Afro-American Studies M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests for discussion and case management with an African American child and family.


M246. Psychological Aspects of Mental Retardation. (4) (Same as Psychology M246.) Lecture, 90 minutes. Discussion of psychological aspects of mental retardation, including classification, description, etiology, theory, prevention, treatment, assessment, modern and future developments, and input from other disciplines (ethics, law, religion, welfare systems).

M254. Supporting Families of Children with Special Needs. (2) (Same as Social Welfare M203D.) Mental health issues and needs of Hispanics through seminars and videotapes dealing with historical comparison of psychiatry in Mexico and the U.S., analysis of various theoretical perspectives regarding biopsychosocial behavior; distinguishing psychodynamic from cultural factors in treatment of Spanish-speaking patients; treatment of Hispanic families, couples, undocumented persons, and criminal justice system clientele.


M263. Clinical Pharmacology. (2) (Same as Biomathematics M263 and Medicine M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (M.D., D.D.S., D.N.Sc., or Ph.D.). 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.

M266. Advanced Magnetic Resonance Imaging. (4) (Same as Biomedical Physics M266 and Neuroscience M267.) Lecture, four hours. Starting with basic principles, presentation of physical basis of magnetic resonance imaging and its applications in developing advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.

M270. Neural Basis of Memory. (4) (Same as Neuroscience M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrated into models for how behavioral phe- nomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

M272. Psychological Anthropology. (4) (Same as Anthropology M234Q.) Lecture, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconscious processes as they relate to culture. Topics vary from term to term. May be repeated for credit.

M273. Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Anthropology M263Q, Community Health Sciences M244, and Nursing M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

257A-257B-257C. Communication Disorders Associated with Developmental Disabilities and Psychiatric Disorders. (3-3-3) Laboratory, 90 minutes; didactic, 90 minutes. Discussion and practical training in communication and its dysfunction as these relate to language disabilities seen in interdisciplinary medical setting. Provides background for graduate and post-doctoral students who plan to engage in clinical work and/or clinical research in which language disturbances of childhood and adulthood are relevant.


262A-262B-262C. Clinical Fieldwork in Developmental Disabilities and Chronic Illness. (1 to 3 each term) Requisites: 243A, 243B, 243C. Placement and supervision of clinical and consultation activities of interdisciplinary trainees in various community agencies, hospitals, or other related settings serving developmentally disabled or chronically medically ill adults. Supervision done jointly by community personnel on site, in collaboration with interdisciplinary faculty. S/U grading.


M280. Politics of Reproduction. (2 to 4) (Same as Anthropology M269P) Seminar, three hours. Examination of various ways that power, as it is structured and enacted in everyday activities, shapes human reproductive behavior. Case materials from diverse cultures illuminate how competing interests within households, communities, states, and institutions influence reproductive arrangements in society. Letter grading.

281A-281B-281C. Behavioral Therapy in an Educational Setting. (4-4-4) (Formerly numbered 281.) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with exceptional children in conducting systematic observations, administering formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical background furnished through one-hour weekly lecture. S/U or letter grading.

M282. Anthropology of Human Body. (2 to 4) (Same as Anthropology M234T.) Seminar, three hours. Exploration of how sociocultural and political dynamics shape perceptions of and understandings about the human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.

M283. Anthropology of Genetic Knowledge. (2 to 4) (Same as Anthropology M265.) Seminar, three hours. Exploration of how sociocultural and political dynamics shape our understandings of genetic discoveries and how genetic information is used to create conceptions of the self and society. Letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (4) (Same as Biomedical Physics M285.) In-depth examination of activation imaging, including PET and MRI methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of a functional MRI experiment. S/U or letter grading.


M288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Community Health Sciences M294.) Lecture, four hours. Requisites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors which influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.

M289. Intervention to Reduce HIV and Its Consequences. (4) (Same as Community Health Sciences M299.) Lecture, three hours. Examination of interventions to reduce HIV/AIDS transmission. Review of theory and research supporting efficacy of HIV interventions for a variety of high-risk populations. Letter grading.


295B. (2) Drug use patterns and treatment issues in specific populations, such as women, adolescents, the homeless, the multiply diagnosed, as well as different ethnic populations. Exploration of relationships between drug abuse, sexuality, and HIV/AIDS. S/U grading.

295C. (2) Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of drug abuse research. Research design and analysis of issues pertinent to drug abuse research. S/U grading.

296. Current Topics in Biobehavioral Sciences. (1 to 4) Current issues in biobehavioral sciences offered on selective basis depending on instructor interest and topical relevance of problems. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants’ current research; critical review of recent articles on drug abuse and addiction. Weekly lecture series intended for those interested in human genetics or in specific topic to be presented. Letter grading.

403. Individual Case Supervision. (1 to 4) Preparatory: submission of written proposal to be structured by instructor and student prior to enrollment; additional information and proposal forms available in Office of Education, C8-237/C8-238 NPI&H. Letter grading.

425. Teaching Case Conference. (1) Review of diagnosis and treatment of full spectrum of disorders, with expert off-unit consultants.


479. Genetics Clinic Presentation. (No credit) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

480. Analysis of Human Chromosome Studies. (1) Chromosome karyotypes prepared in cytogenetics laboratory during preceding week presented and discussed with reference to clinical findings. Teaching includes interpretation of abnormal karyotypes and technical aspects of routine and special chromosome stains.


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, C8-237/C8-238 NPI&H. Directed individual research and study in psychiatry at graduate level.

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**Psychology**

**College of Letters and Science**

**UCLA**

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Elizabeth L. Bjork, Ph.D.
which certain areas of psychology and related fields differ considerably in their focus (i.e., the extent to which they are fundamental and basic knowledge bases, they differ: a B.A. degree in Psychology and B.S. degrees in Cognitive Science and in Psychobiology present psychology as a scientific discipline that employs systematic methods of inquiry to study and explain human and animal behavior — both normal and abnormal — in terms of a variety of underlying variables, including neural, physiological, and cognitive processes; developmental factors and individual differences; and social and interpersonal influences and contexts. According to recent surveys, the UCLA Psychology Department is ranked as one of the top departments of its kind in the country.

The structure of the undergraduate curriculum has been designed to reflect the extensive breadth of psychology in terms of both the range of behavioral phenomena studied and the variety of methods and theoretical approaches employed. While allowing students to pursue in greater depth those areas in which they become most interested. Beyond basic core courses, students can take many specialized courses in areas such as psychobiology, animal behavior, learning and memory, motivation, perception, cognition, measurement, personality, and clinical, social, developmental, community, and health psychology. The curriculum also provides excellent opportunities for research experience — either in the form of laboratory courses or by participation with faculty and graduate students in a wide variety of research projects.

A choice of three undergraduate majors is offered: a B.A. degree in Psychology and B.S. degrees in Cognitive Science and in Psychobiology. While the majors overlap in certain fundamental and basic knowledge bases, they differ considerably in their focus (i.e., the extent to which certain areas of psychology and related disciplines are studied) and in terms of the different student interests and needs they satisfy.

For nonmajors, the department offers many courses that can give them new and valuable insights into the understanding of human behavior, including their own.

At the graduate level, the department offers training leading to the Ph.D. degree with emphases in areas such as behavioral neuroscience, clinical, cognitive, developmental, learning and behavior, measurement, and social psychology. The program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and professional psychologists.

### Undergraduate Study

#### Psychology B.A.

The Psychology major is the most general of the three majors and offers both broad and in-depth coverage of the fundamental and traditional areas of psychology. It provides students with a strong foundation for postgraduate education in psychology and can serve as excellent background to prepare them for further training in such fields as law, education, government and public policy, business, and many of the health-related professions. Its basic liberal-arts orientation also provides 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, 1531 Franz Hall.

#### Prepsychology Major

Students need to file a petition in the Undergraduate Advising Office to declare the Prepsychology major. They are then identified as Prepsychology majors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychology major.

#### Preparation for the Major

The following required courses must be taken for a letter grade (a C– or better in each course and a 2.3 overall grade-point average in the preparation courses) before students reach 110 total units (transfer students must complete all remaining preparation courses by the end of the first year of enrollment): Anthropol-ogy 7 or 12; Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A (if students have completed one
year of high school chemistry with a C or better, this requirement is waived; one course from Computer Science 2, Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus; Physics 10 or 1A or 6A; one course from Philosophy 1, 2, 4, 5, 6, 7, 8, 9, 21, 22, 22W, 31, 32; Psychology 10, 100A, 100B. Students cannot take Psychology 100B unless 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 Prepsychology major 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.

Repetition of more than two preparation courses in which a grade of D or F was received or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students
To be admitted as Psychology majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one human evolution course, one biology course equivalent to Life Sciences 1 or 15 or Physiological Science 3, one general chemistry course (or one year of high school chemistry with a C or better), one 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++.

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) Five core courses selected from Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, 127 or 128, 130 (or one course from 133A through 133L), 135; (2) one laboratory/fieldwork course from 101, 111, 113, 116, 121, 126, 131, 136A, 136B, 136C, 171A, 174, 186A, 186B, 186C; (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 upper division courses 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 B.S.
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. 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 Graduate Advising Office, 1531 Franz Hall.

Precognitive Science Major
Students need to file a petition in the Undergraduate Advising Office to declare the Precognitive Science major. They are then identified as Precognitive Science majors 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, 1531 Franz Hall.

Preparation for the Major
The following required courses must be taken for a letter grade (a C or better in each course and a 2.5 overall grade-point average in the preparation courses) before students reach 130 total units: Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A (if students have completed one year of high school chemistry with a C or better, this requirement is waived); Mathematics 31A, 31B; Philosophy 7 or 8 or 9; Physics 10 or 1A or 6A; Program in Computing 10A, 10B, and one course from 15 or 20A or 40; Psychology 10, 85, 100A, 100B. Students cannot take Psychology 100B unless 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 Precognitive Science major 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.

Repetition of more than two preparation courses in which a grade of D or F was received or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students
To be admitted as Cognitive Science majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course, one general chemistry course (or one year of high school chemistry with a C or better), two calculus/analytical geometry courses, one general physics course, one philosophy course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, one computer programming course in C++, and one other computer programming course.

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 124G; (2) one course from 186A or 186B or 186C and one course from 121, 186A, 186B, 186C, or Computer Science 161; (3) three upper division elective courses (12 units) from Psychology 110, 112A through M119N, 123, 124A through 124G (if taken for the major, may not be applied as an elective), 130, 133B, 135, 142H, 150, 151, 187A, 189, 190B or 190C (if content is approved by the Undergraduate Advising Office and courses have not been applied toward the Psychology 188A or 188B requirement), 197 (content must be approved by the Undergraduate Advising Office before elective credit may be granted), Communication Studies 156, Computer Science 111 through M196B, Ethnomusicology 172A, Linguistics 103 through C185B, Mathematics 110A through 171, Philosophy 124 through 136, Statistics 100A, 100B, 100C, CM120A, CM120B; (4) two terms of Psychology 188A or 188B (may be fulfilled by taking any two courses from 188A, 188B, or 190C, 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. Students must have a 2.0 grade-point average in all upper division courses selected to satisfy major requirements. With the exception of Psychology 188A and 188B, each course must be taken for a letter grade.

Psychobiology B.S.
The Psychobiology major is designed for students who plan to go on to graduate work in physiological psychology, neuroscience, behavioral aspects of biology, or the health sciences. Psychobiology involves the study of brain-behavior relations and laboratory training in standard brain research techniques. 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. 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 infor-
mation, contact the Undergraduate Advising Office, 1531 Franz Hall.

**Prepsychobiology Major**

Students need to file a petition in the Undergraduate Advising Office to declare the Prepsychobiology major. They are then identified as Prepsychobiology majors 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:* Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

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 Prepsychobiology major 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.

All core curriculum courses must be taken for a letter grade (a C or better in each course and a 2.0 overall grade-point average in the core curriculum) before students reach 150 total units. Psychology 100A and 100B must be completed before students reach 130 total units. 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**

To be admitted as Psychobiology majors, transfer students 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, 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.

**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) Organismic Biology, Ecology, and Evolution 129 or Psychology 118 or Anthrology 128A and 128B, and Psychology 110, 115 (or M117A, M117B, and M117C), 116, 120A or 120B; (2) one course from Psychology 127 or 128, 130, 133A through 133I, 135; (3) 16 units of graded elective courses from the following list: Organismic Biology, Ecology, and Evolution 112, 113A, 114 (no more than one from this group), Psychology M117A, M117B, M117C, M117J, 119A through M119O, 190C (only if content is approved by the Undergraduate Advising Office), 197 (content must be approved by the Undergraduate Advising Office before elective credit may be granted), Chemistry and Biochemistry 153A, 153L, Cybernetics M196L, Microbiology, Immunology, and Molecular Genetics 185A, Molecular and Medical Pharmacology M110A, 110B, Molecular, Cell, and Developmental Biology 104, 138, C139, CM156, 171, Neuroscience 151, Organismic Biology, Ecology, and Evolution 102, C104, 105, 106, 110, 111, C115, 117, C119, 120, 121, 122, 124 (only 4 units may be applied toward the major), 131 (only 4 units may be applied toward the major), C135, 146, M158, 164, M166, 167, 179, Psychological Science 142, C144, 147, M173.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper division psychobiology electives.

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.

**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 undergraduates closer to understanding research and its applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 188A, 188B, 192, 193, 194A, 194B, 194C, 196, 199, or the Student Research Program (SRP) through the College of Letters and Science. Information about these courses and programs is available from the Undergraduate Advising Office, 1531 Franz Hall.

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, 4 units of course 199 may be applied toward the elective course requirements for the Psychology major and toward the Psychology 188 requirement for the Cognitive Science major.

**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. Enrollment priority in honors courses is given to students in the departmental honors program. Consult 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 with a 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 190A, 190B, 190C) 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. Consult the Undergraduate Advising Office during Spring Quarter for further 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.

**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.

**Developmental Disabilities Immersion Program and Concentration Program**

The Developmental Disabilities Immersion Program (DDIP), cosponsored by the Department of Psychology, the Department of Psychiatry and Biobehavioral Sciences, and the Office of Instructional Development — Center for Experiential Education and Service Learning (CEESL), provides a community learning environment for undergraduate students who devote two quarters to the intensive study of developmental disabilities. Each year a group of 30 students is selected for the program which
runs during Winter and Spring Quarters. Students participate in courses, fieldwork, and research at selected University and community facilities serving persons with developmental disabilities.

Required courses include Psychology/Psychiatry M180A, M180B, M181A, M181B. Courses are designed to foster discussions integrating students' field and research experiences. Lectures and discussions explore biological, psychological, and social questions concerning causes and treatment of developmental disabilities. Also covered is an analysis of programs for the care and training of individuals with development disabilities. The fieldwork component gives students the opportunity to apply theories and concepts learned in their coursework to actual settings involving individuals with developmental disabilities. Students also undertake a two-quarter research project under the guidance of a UCLA faculty member.

Concentration

To earn a concentration, majors in Psychology, Cognitive Science, and Psychobiology must be accepted into the Developmental Disabilities Immersion Program. Information and applications are available from the Center for Experiential Education and Service Learning, 160 Powell Library. Applications are due the Spring Quarter prior to the academic year in which students wish to participate in DDIP.

The following courses are required for the concentration: Psychology 127 (may also be applied as one of the three upper division electives required for the Psychology major), 130 or one course from 133A through 133J (also satisfies a core requirement for the Psychology major), M180A, M180B, M181A, M181B, 193 (two terms). With the exception of course 193, each course must be taken for a letter grade. If a psychology major earns the DDIP concentration, upper division elective credit for Psychology M180A, M180B, M181A, M181B does not apply toward the major. Students in the department who complete the requirements receive a departmental certificate of completion at graduation; they must notify the department during the term they plan to graduate to receive the certificate. The concentration does not appear on the diploma or transcript.

Interested students should contact the DDIP coordinator at the Center for Experiential Education and Service Learning, 160 Powell Library, (310) 825-7867, for information regarding admission and an application.

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 Program in Computing 10A, 10B, and at least one course from 10C, 15, 20A, 30, 40, or 60, and (3) completing at least three courses from Psychology 85, 121, 142H, 150, 186A, 186B, 186C (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 consult the Undergraduate Advising Office.

Applied Developmental Psychology Minor

The Applied Developmental Psychology minor is designed to (1) provide a coherent academic program with focus on issues central to improving the well-being of children and their families, (2) teach undergraduates 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 been accepted into an approved applied developmental psychology internship program. For further information about applying to the internship program, contact the director of the Infant Development Program, 1611 Franz Hall, (310) 825-2896. For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office, 1531 Franz Hall, (310) 825-2730.

Required Lower Division Course (4 units): Psychology 10.

Required Upper Division Courses (24 units): Psychology 133X and 133Y (to be taken concurrently with the two-term internship described below) and four additional courses, of which at least three must be upper division, from Education 125A, 181A, 181B, Psychology 129F, 131, 132, 133B through 133L, 197 (content must be approved by the Undergraduate Advising Office), 199 (content must be approved by the Undergraduate Advising Office), Sociology 136, M174. One of the four additional courses must include either Psychology 130, one course from 133B through 133L, or 197 (content must be approved by the Undergraduate Advising Office). Internship Requirement: Students work as interns for two consecutive academic terms at an approved daycare center/school and enroll concurrently in Psychology 133X and 133Y. The internship provides hands-on experience working with young children as teacher's aides and opportunities for observing children.

No more than two courses may be applied toward both the students' majors and this minor. All minor courses, except for the internship courses, must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 a primary cluster from four clusters of upper division courses that have been organized to reflect different aspects of cognitive science. Students take three courses within their primary cluster and two additional courses from the remaining clusters (secondary clusters).

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. Students must make an appointment with a counselor in the Undergraduate Advising Office, 1531 Franz Hall, (310) 825-2730, to enter the minor and receive counseling on how to select a primary cluster.

Required Courses (28 units): Psychology 85 and one course from 15, 100B, Computer Science 2, Linguistics 1, 20.

The computer programming experience requirement is satisfied by petition based on coursework (e.g., completion of Program in Computing 10A) or other relevant programming experience.

Students must also select (with approval of the Undergraduate Advising Office) and complete one of the following four primary clusters: (1) biological basis of cognition cluster — three courses from Linguistics C135, Psychology 115, 116, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Physiological Science M180C), 119B, 119F, M119L, M119N; (2) computation and modeling cluster — three courses from Biomathematics 108, Computer Science 161, 163, Psychology 150, 151, 186A, 186B, 186C (at least one course must be from Computer Science 161, Psychology 186A, 186B, 186C); (3) human cognition cluster — Psychology 121 and two courses from 112C, 120A or 120B, 124A through 124G, 133B, 133BH, 133C, 133E; (4) mind and language cluster — three courses from Linguistics 120A, 120B, 125, C130, C132, C135, C185A, Philosophy 124, 125, 126, 127A, 127B, 129, 170, 172, Psychology 122, 123, 124A.

Students must also fulfill a secondary cluster requirement of two additional courses from one or more of the clusters not selected as the primary cluster.

No more than two courses may be applied toward both the students' majors and this minor. All minor courses must be taken for a letter grade, with an overall grade-point average of
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnx.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Psychology.

Psychology

Lower Division Courses

10. Introductory Psychology. (4) Lecture, four hours. General introduction including topics in cognitive, experimental, personality, developmental, social, and clinical psychology; six hours of psychological research. 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 prerequisite: 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 instructors. 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 relation of these processes to disease states. Examination of multifaceted nature of coping with stressors and exploration of strategies for stress management. P/NP or letter grading.

97. Variable Topics in Psychology. (4) Lecture, three hours. Enforced prerequisite: course 10. Study of selected topics in psychology at introductory level; lecture format designed for freshmen/sophomores. P/NP or letter grading.

Upper Division Courses

100A. Psychological Statistics. (4) Lecture, four hours. Requisites: course 10, and one course from Computer Science 2, Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus. Designed for premajors. 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, 100A with grades of C– or better for psychophysiology and psychophysiology, C or better for precognitive science. Introduction to research methods and critical analysis in psychology. Lecture and laboratory topics include experimental and non-experimental research methods, statistical design and analysis as applied to a broad range of basic and applied research issues. P/NP or letter grading.

101. General Psychology Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B. General laboratory course for psychology students to acquire key concepts in psychology through active participation in enriched environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in challenging atmosphere to learn how mind works. Letter grading.


110. Fundamentals of Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100D. Designed for juniors/seniors. Experimental findings on animal and human conditioning; retention and transfer of training; relation of learning and motivation. Intended to provide empirical basis for theory and research in this area. P/NP or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 110. Designed for departmental majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behaviors such as feeding, drinking, and reproduction-related behavior. Discussion of physiological mechanisms that contribute to such behaviors. Consideration of topics such as reinforcement, conditioned acquisition, 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 10, 100A, 110. Recommended: course 115. Designed for juniors/seniors. Presentation of biological and behavioral approaches to fear and anxiety. Study of laboratory and applied research. In addition to overview of major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112C. Principles of Skill Acquisition. (4) Lecture, three hours. Requisites: course 110 or 120A or 120B (recommended). Designed for Psychology majors. Investigation into principles of human skill learning, with focus on general principles of skill learning derived from laboratory settings. These principles have relevance to various industrial or occupational settings, musical performances, vehicle control, sport, and other activities in which complex perceptual-motor skills must be acquired with practice. Topics include laboratory measurement procedures, effective structure of practice settings, feedback and knowledge of results, learning of automatic, individual differences, and evaluation of various theories of skill learning. P/NP or letter grading.
112D. Animal Cognition. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, spatial cognition, timing and counting, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/N or letter grading.

113. Behavior and Alcohol Laboratory. (Honors.) (5) Discussion, two hours; laboratory, four hours. Requisites: courses 10, 100A, 100B. Students conduct an experiment studying effects of alcohol on learning and complex processes using paid volunteers. Examination of set and setting and role of individual differences in relation to current theories of alcohol use and abuse. P/N or letter grading.

113H. Behavior and Alcohol Laboratory (Honors). (4) Discussion, two hours; laboratory, four hours. Requisites: courses 10, 100A, 100B. Honors course parallel to course 113. P/N or letter grading.

114. Alcoholism. (4) Designed for juniors/seniors. Theories and research on impact, causes, characteristics, and treatment of alcoholism considered from a biobehavioral point of view.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100A or Life Sciences 2 or 105. Open to students with credit for course M117A. Designed for juniors/seniors. Nervous system anatomy, physiology, pharmacology, and their relationship to behavior. P/N or letter grading.

116. Behavioral Neuroscience Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, 115. Designed for Psychobiology and Psychology majors. Laboratory experience with various topics in behavioral neuroscience. P/N or letter grading.


M117A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A or former course 30 (14C may be taken concurrently). Life Sciences 2, Physics 1B or 6C. Not open for credit to students with credit for Physiological Science 2 or 15. Open to students with experience in the sciences only, a grade of C– or better is required to proceed to Physiological Science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission in the motor system; how assemblies of neurons process complex information and control movement. P/N or letter grading.

M117B. 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) or Life Sciences 3, 4. Molecular biology of the nervous system: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Designed and taught by Psychologist M119N.) Lecture, three hours. Presented current data and theory concerning how neurons produce behavior. Mechanics of perception, response selection, motor pattern generation, learning, and motivation, with emphasis on operation of these processes in well-defined neural circuits.


119M. Physiological Psychology of Learning. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 115. Designed for juniors/seniors. Introduction to classical and current literature on mechanisms of learning, considering both cellular and neurological mechanisms and brain circuitry.

M119N. The Visual System. (4) (Same as Neuroscience M119N.) Lecture, three hours. Requisite: course 115 or Molecular, Cell, and Developmental Biology 171 or Neuroscience M101A or Psychological Science 111A. The ability to image and analyze the visual world is a truly remarkable feat. Coverage of anatomy and physiology of visual processing from the retina to visual cortex through lectures, extensive reading, and discussions.

M119Q. Psychology of Aging. (4) (Same as Gerontology M119Q.) Lecture, three hours. Requisite: course 115. Designed for seniors. Aging refers to developmental changes occurring at and staging events that mark a decline in capacities that occur represent improvement, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/N or letter grading.

119P. Mapping Mind through Its Molecules. (4) Lecture, four hours. Requisite: course 115 or 111. Designed for juniors/seniors. Explanation of how neural molecules provide unique window into mind. Topics include neurotransmitters, receptors, ion channels, and signal transmission molecules. Roles these molecules play in information processing, consciousness, learning, memory, neural plasticity, degeneration, and psychiatric disorders. P/N or letter grading.

119Q. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115 or 111. Designed for juniors/seniors. Review of measurement and comparison of sleep in mammals and submammalian species, circadian rhythms and circadian control of sleep, development and aging of sleep, neural and neurochemical control of sleep, effects of sleep deprivation, sleep in psychiatric disorders, human sleep disorders, and function of dreams. P/N or letter grading.

119R. Neurobiology of Visual Cognition. (4) Lecture, three hours. Requisite: course 115. Designed for seniors/seniors. Review of some recent advances in understanding of neurobiology of visual cognition. Topics include how is visual information processed by brain to generate actions? How do we recognize objects? How do we perceive emotions displayed by other subjects? P/N or letter grading.


M119X. Biologic and Behavioral Neuroscience of Aging. (4) (Same as Gerontology M119X.) Lecture, three hours. Designed for seniors. Biologic mechanisms of aging process and its terminal phase, death, have been increasing in recent years. Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/N or letter grading.

M120. Human Neuropsychopsychology. (4) (Same as Neuroscience M120A.) Lecture, three hours. Requisites: courses 115 (or M117A and M117C), 120A or 120B. Designed for juniors/seniors. Survey of experimental and clinical human neuropsychology; neural basis of higher cognitive functions. P/N or letter grading.
120A. Cognitive Psychology. (4) Formerly numbered 120.) Lecture, three hours; discussion, one hour. Repeatable for credit with permission. Designed for juniors/seniors. Survey of cognitive psychology: how people acquire, represent, transform, and use verbal and nonverbal information. Perception, attention, memory, representation of knowledge, language, action, decision making, thinking. P/NP or letter grading.

120B. Sensation and Perception. (4) Lecture, three hours; discussion, one hour. Repeatable for credit with permission. Designed for juniors/seniors. Acquisition of information about physical world through basic sensory mechanisms and perceptual processes. Perception of objects, surfaces, space, motion, and events. Connection among storage, computations, and biological mechanisms in vision, audition, and other systems. P/NP or letter grading.

121. Laboratory in Cognitive Psychology. (4) Laboratory, four hours. Repeatable for credit with permission. Designed for Psychology and Cognitive Science majors. Laboratory experience with methods and phenomena from research on human memory, perception, and cognition. P/NP or letter grading.

122. Language and Communication. (4) Lecture, three hours. Repeatable with permission for credit with permission. Course 10. Introduction to psychology of language and communication; verbal and nonverbal channels; interlinguistic and intralinguistic variations; psychological bases of language; production and comprehension of speech and writing; relation to perception, memory, and thought; conversational interaction; language development.

123. Psycholinguistics. (4) Designed for juniors/seniors. Current theory and research in psycholinguistics: survey of language acquisition, language perception, and language production; language physiology and pathology; problems of representation, sequencing, and timing in language and other cognitive skills; errors in speech production and perception.

124A. Advanced Topics in Sensation and Perception. (4) Lecture, three hours. Repeatable for credit with permission. Designed for seniors. Contemporary research and theory about visual and auditory perception. Topics include physiological mechanisms, psychophysical studies and models, and computational approaches. P/NP or letter grading.

124AH. Sensation and Perception (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 124. Repeatable for credit with permission. Honors course parallel to course 124A.

124B. Visual Information Processing. (4) Lecture, two hours; discussion, one hour. Repeatable for credit with permission. Exploring of issues in visual information representation and representation of visual information in memory, pattern recognition, nature and role of attention in visual processing, word and picture recognition, object perception, and imagery. Possible consideration of developmental aspects. P/NP or letter grading.

124C. Human Memory. (4) Lecture, two hours; discussion, one hour. Repeatable for credit with permission. Designed for juniors/seniors. Analysis of recent research on basic processes and structural components that comprise the human memory system. Discussion topics include practical implications of such research for instruction, marketing, and witness testimony. P/NP or letter grading.

124D. Principles of Human Performance. (4) Designed for Psychology majors. Investigation into laboratory-based methods and principles of human performance. Major topics include research methods for human performance, control of movements, anticipation and timing, automaticity, sensory involvement in action such as vision and kinesthesis, role of reflexes, speed-accuracy trade-offs, and individual differences and abilities. Principles discussed should have relevance for numerous real-world situations in which complex perceptual-motor skills are required, such as in industrial or occupational settings, musical performances, vehicle control, and sport.

124E. Language and Cognition. (4) Lecture, three hours. Repeatable for credit with permission. Designed for juniors/seniors. Recent theories of language and cognition; models of categorization, feedback and error detection in language and cognition; modularity; ambiguity; knowledge acquisition; processes and representations underlying perception, production, attention, action, and cognition. P/NP or letter grading.

124F. Thinking. (4) Lecture, three hours. Repeatable for credit with permission. Analysis of experimental studies of thinking; reasoning, decision making, problem solving, creativity, and related topics. P/NP or letter grading.

124FH. Thinking (Honors). (4) Lecture, three hours. Honors course parallel to course 124F. P/NP or letter grading.

124G. Cognitive Aging. (4) Lecture, 90 minutes; discussion, 90 minutes. Repeatable for credit with permission. Designed for seniors. Recent facts and theories on relations between normal aging and cognition, including perception, language comprehension, learning, memory, thinking, inhibitory processes in attention, sequential processes in action, general slowing phenomenon, and related neuropsychological changes. Methods, descriptive and experimental approaches. Topics include social, emotional, and intellectual changes with aging.

125. Clinical Psychology Laboratory. (4) Laboratory, four hours. Repeatable for credit with permission. Designed for departmental majors. Methods, descriptive and experimental approaches. Topics include social, emotional, and intellectual changes with aging. Content varies by instructor, with concentration on one of the following: schizophrenia, mood disorders, anxiety disorders, childhood disorders, psychophysiological methods, observational methods in couples and families. Letter grading.

126. Abnormal Psychology. (4) Lecture, three hours. Repeatable for credit with permission. Designed for seniors. Overview of characteristics of major forms of psychopathology, theories and research on causes of disorder, types of treatment, social and legal issues in mental illness.

128. Psychopathology. (4) Lecture, three hours; discussion, one hour. Repeatable for credit with permission. Designed for seniors. Survey 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.


132. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Repeatable for credit with permission. Designed for seniors. Overview of theories of human personality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human behavior and functioning. Psychological mechanisms underlying expression of human sexuality. P/NP or letter grading.

131. Research in Developmental Psychology. (4) Seminar, one hour; laboratory, three hours. Repeatable for credit with permission. Designed for seniors. Overview of theories of human personality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human behavior and functioning. Psychological mechanisms underlying expression of human sexuality. P/NP or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Repeatable for credit with permission. Designed for seniors. Overview of theories of human personality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human behavior and functioning. Psychological mechanisms underlying expression of human sexuality. P/NP or letter grading.

133A. Adolescent Development. (4) Lecture, three hours. Repeatable for credit with permission. Designed for seniors. Overview of theories of human personality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human behavior and functioning. Psychological mechanisms underlying expression of human sexuality. P/NP or letter grading.

133B. Social and Personality Development. (4) Lecture, three hours. Repeatable for credit with permission. Designed for seniors. Overview of theories of human personality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human behavior and functioning. Psychological mechanisms underlying expression of human sexuality. P/NP or letter grading.

133C. Language Development. (4) Lecture, three hours. Repeatable for credit with permission. Designed for seniors. Overview of theories of human personality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human behavior and functioning. Psychological mechanisms underlying expression of human sexuality. P/NP or letter grading.
133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and recent human perceptual abilities, origins of knowledge about functionally important aspects of the environment, ecological and computa
tional issues in perception, research and theory about initial perceptual capacities, and some sensory foun
dations. 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 in
clude general instructional issues, psychology of reading and mathematics, exceptional children, early
childhood education, and education of the disadvan
taged. P/NP or letter grading.

133G. Culture and Human Development. (4) Lec
ture, three hours; discussion, one hour. Requisites: courses 10, 100A. Role of culture in human development
through psychology, anthropology, and autobi
graphy. Students relate material from lectures and readings, through empirical research projects, to di
cerse cultural backgrounds in class, at UCLA, and in the broader community. P/NP or letter grading.

133L. Applied Developmental Psychology. (4) Lec
ture, three hours; discussion, courses 10, 100A. Ap
clication of developmental psychology to issues per
taining to improving well-being of children and their families. Topics include quality of child care, patterns
and ranges of normal child behaviors, developmental
deficiencies, safety, legal, and public policy issues, child-rearing practices. P/NP or letter grading.

133X. Applied Developmental Psychology. (4) Lec
ture, 90 minutes; discussion, 90 minutes. Requi
site: course 10. Designed for Applied Developmental Psychology minors. Issues on improving well-being of children and their families, relating research literature to ongoing fieldwork experiences through lectures and discussion, conducting and writing up assessment and observation of children, and designing day-
care curricula. P/NP grading.

133Y. Advanced Applied Developmental Psychol
ogy. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 133X. Designed for Applied
Developmental Psychology minors. Advanced issues on improving well-being of children and their families, relating research literature to ongoing fieldwork experi
ences through lectures and discussion, conducting and writing up assessment and observation of chil

dren, and designing daycare curricula. P/NP grading.

135. Social Psychology. (4) Lecture, three hours; discussion, courses 10, 100A, 100B, 135. Designed for
juniors/seniors. Interrelationships be
 tween the individual and his social environment. So
cial influences on motivation, perception, and behav
ior. Development and change of attitudes and opin
ions. Psychological analysis of small groups, social stratification, and mass phenomena. P/NP or letter
grading.

135A. Social Psychology Laboratory. (4) Lecture,
one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology ma
jors. Introduction to research designs and methods used to test social psychological hypothesis, including experiments, observation, content analysis, and/or questionnaires. P/NP or letter grading.

136B. Nonexperimental Methods in Social Psychol
ogy. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. De
signed for Psychology majors. Research experience
with nonexperimental methods for study of social atti
ditudes or behavior, including fieldwork with survey re
search, natural observation, or questionnaires. P/NP or letter grading.

136C. Survey Methods in Psychology. (4) Lecture,
two hours; laboratory, three hours. Requisites: course
s 10, 100A, 100B, 135. Designed for Psychology majors. Survey research in psychology, with particu
lar emphasis on surveys of social and political atti
tudes. Actual experience in systematic survey re
search such as that done by media polling agencies, market research companies, and academic survey research centers. Topics include survey design, sam
pling, interviewing techniques, response rates, ques
tionnaire design, data coding, and analysis. Training in telephone interviewing techniques in laboratories. P/NP or letter grading.

137A. Sport Psychology. (4) Lecture, three hours. Requisites for juniors/senior Psychology majors. Intro
duction to field of sport psychology. Coverage of re
search and applied aspects of a range of topics, in
cluding youth sport participants as well as world-class performers. P/NP or letter grading.

137AH. Sport Psychology (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel
to course 137A.

137B. Attitude Formation and Change. (4) Lec
ture, three hours. Requisites: courses 10, 100A, 135. Structure and functions of attitudes, their measure
ment, how they develop, and methods for changing
them. P/NP or letter grading.

137C. Close Relationships. (4) Lecture, three hours. Requisites: courses 10, 100A, 135. Examina
tion of research on love, infidelity, dating, and marriage, with emphasis on how these relation
ships are affected by gender and changing sex roles. P/NP or letter grading.

137D. Introduction to Health Psychology. (4) Re
quisites: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and re
search, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in the medical area.

137E. Work Behavior of Women and Men. (4) (Same as Women's Studies M137E.) Lecture, two and one-half hours. Requisite: course 10 or Women's Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include an
tecedents of career choice, job findings, leadership, performance evaluation, discrimination and evalua
tion bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

137F. Introduction to Sport Psychology. (4) Re
quisites: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and re
search, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in the medical area.

137G. Work Behavior of Women and Men. (4) (Same as Women's Studies M137E.) Lecture, two and one-half hours. Requisite: course 10 or Women's Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include an
tecedents of career choice, job findings, leadership, performance evaluation, discrimination and evalua
tion bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

137H. Introduction to Sport Psychology. (4) Re
quisites: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and re
search, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in the medical area.
M165. Psychology of Gender. (4) (Same as Women’s Studies M165.) Lecture, three hours. Consideration of psychological and literary literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and personality differences between men and women, sex differences in intellectual abilities and temperament, and impact of gender on social interaction. P/NP or letter grading.

168. Environmental Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A. Research-oriented course which surveys theoretical and methodological issues which comprise the area of environmental psychology. Discussion of basic dimensions of emotional response to physical and social environments, research methods, and impact of rate of situations, and personality variables that are relevant to environmental theory. Residential, therapeutic, work, and recreational environments within a unified framework. P/NP or letter grading.

170A. Behavior Modification. (4) Lecture, three hours. Designed for juniors/seniors. Applied behavior theory; study of application of principles derived from learning theory, as in classical and instrumental (operant) conditioning, to treatment of developmentally disabled, autistic, and schizophrenic children, adult schizophrenics, affective disorders, anxiety states, drug abuse, marital discord, etc. Lectures, discussion, three hours. Requisites: courses 10, 100A, 100B. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family disorganization (e.g., separation and divorce). P/NP or letter grading.

175. Community Psychology. (4) Designed for juniors/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.

175H. Community Psychology (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 175.

176. Communication and Conflict in Couples and Families. (4) (Same as Communication Studies M176.) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 100B. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family disorganization (e.g., separation and divorce). P/NP or letter grading.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, 100B. Advanced Psychology majors. Conceptual and empirical foundations of psychological counseling; comparison of alternative models of counseling processes. Emphasis on counseling approaches in community mental health areas such as drug abuse, suicide prevention, and crisis intervention. P/NP or letter grading.

178. Human Motivation. (4) Lecture, three hours. Designed for juniors/seniors. Examination of theories of human motivation; findings supporting the theories, and history of study of motivation. Topics include sociobiology, conflict, aspiration level, achievement strivings, and causal attributions.

178H. Human Motivation (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 178.


179B. Biomedical and Psychosocial Aspects of AIDS/HIV. (4) Lecture, three hours. Requisite: course 137D or 179A or Health Services 100. Designed for juniors/seniors. Basics of epidemiology of the disease, routes of transmission, clinical characteristics of AIDS, neurological and psychosocial aspects of coping with HIV infection and AIDS. Presentation of biologic, behavioral, and therapeutic interventions.

M180A. Contemporary Problems in Mental Retardation. (4) (Same as Psychiatry M180A.) Lecture, one-half hours; laboratory, one-half hours. Requisites: courses 10, 100A, and 127 or 130 or 133A through 133I. Corequisite: course M181A. Limited to Immersion Program students. Presentation of contemporary mental retardation issues. Biological, psychological, and community questions concerning causes and treatment of developmental disabilities, as well as systems of conceptual tools for analyzing retarded individuals. Lectures, directed reading, and discussion. P/NP or letter grading.

M180B. Contemporary Issues in Mental Retardation. (Same as Psychiatry M180B.) Lecture, three hours. Requisite: course M180A. Corequisite: course M181B. Limited to Immersion Program students. Psychocultural issues in mental retardation related to current issues affecting students: directed discussion, media, and student papers. P/NP or letter grading.


186A. Cognitive Science Laboratory: Introduction to Theoretical Models. (4) Lecture, two and one-half hours; discussion, 30 minutes; laboratory, three hours. Requisites: courses 10, 85, 100A, 100B, Program in Computer Science 10B or 10C for junior/senior departmental majors. Lectures and laboratory work in neural network modeling of perception and cognition. Specific topics include essential neurophysiological and cognitive models and programming techniques. Principles illustrated and discussed in context of models of specific perceptual and cognitive processes. Simulations written in PASCAL, P/NP or letter grading.

186B. Cognitive Science Laboratory: Neurophysical Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B, Program in Computer Science 10B or 10C for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive processing and decision models on which procedures are based, with particular emphasis on signal detection theory and its applications. Letter grading.

186C. Cognitive Science Laboratory: Psychophysical Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B, Program in Computer Science 10B or 10C for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive processing and decision models on which procedures are based, with particular emphasis on signal detection theory and its applications. Letter grading.

186D. Neuroinformatics Studio. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 115. Limited to departmental majors. Neuroinformatics is application of informatic methods to study of neuroscience and behavior. In digital studio environment, application of such methods to problems in neuron electrophysiology, neuroanatomy, neuropathology, and neurogenetics. 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/or discussions.

187AH. Psychology and Law (Honors). (4) Lecture, two hours; discussion, two hours. Honors course parallel to course 187A.

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.

188A. Research in Cognitive Science. (4) Seminar, two hours; laboratory, six hours. Limited to Cognitive Science majors. Practical applications of cognitive science through research. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. May be repeated once for credit. P/NP grading.

188B. Internship in Cognitive Science. (4) Seminar, two hours; fieldwork, six hours. Limited to Cognitive Science majors. Practical applications of cognitive science through fieldwork. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. May be repeated once for credit. P/NP grading.
189. Ergonomics and Human Factors. (4) Lecture, three hours. Requisites: courses 10, and 120A or 120B. Limited to juniors/seniors. Examination of human capabilities and limitations in design of human/machine systems such as vehicles, workspaces, and computer software for goals of safety and efficiency. Topics include sources of error, information processing, decision making, and personnel selection. P/NP or letter grading.

189H. Ergonomics and Human Factors (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 189. P/NP or letter grading.

190A-190B-190C. Honors Course. (4-4-4) Seminar, two hours. Limited to psychology honors program students. Opportunity for development and analysis of creative ideas through individual research projects with a faculty sponsor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Office, course 190C may be applied toward elective course requirement for any Psychology Department major.

192. Practicum in Teaching Psychology. (4) Laboratory, to be arranged. Limited to sophomores/juniors/seniors. Training and supervised practicum for advanced undergraduates in teaching courses related to psychology. Students learn organization, presentation of material, and development of innovative programs under guidance of faculty and teaching assistants. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. Only 12 units from courses 192, 193, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. P/NP grading.

193. Fieldwork in Psychology. (4) Seminar, two hours; fieldwork (approved community setting), six hours. Limited to sophomores/juniors/seniors. Fieldwork in applications of psychology. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. Only 12 units from courses 192, 193, 194, and 195 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. P/NP grading.

194A. Research in Psychology. (2) Tutorial (approved research setting), seven hours. Limited to sophomores/juniors/seniors. Practical applications of psychology. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. Only 12 units from courses 192, 193, 194, and 195 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. P/NP grading.

194B-194C. Ongoing Research in Psychology. (2-2) Tutorial or research seminar, seven hours. Limited to sophomores/juniors/seniors. Minimum of two terms required. Practical applications of psychology through research. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. Only 12 units from courses 192, 193, 194, and 195 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. In Progress and P/NP grading.

196. Research Seminar: Psychology. (2) Seminar, two hours. Corequisite: course 194A or 194B or 194C. Study of research methods, applications, and current literature through group discussion, presentation, and papers. Research fields and topics vary by instructor(s). Only 12 units from courses 192, 193, 194, and 195 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. P/NP grading.

197. Current Issues in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Study of selected current topics of psychological interest. Consult Schedule of Classes for topics and instructors. Only one graded 197 course may be applied as an elective toward Psychology major. If content is approved in advance by Undergraduate Advising Office, Psychology, and Cognitive Science majors can petition to use course to satisfy an elective requirement. May be repeated for credit with consent of department.

199. Directed Individual Research and Studies. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Psychology, Psychology, and Cognitive Science majors. Juniors must have at least 3.0 grade-point average in major. Consult Undergraduate Advising Office, 1531 Franz Hall, for further information and approval forms. P/NP or letter grading.

Graduate Courses

200A. Pavlovian Processes. (4) Lecture, three hours. Basic principles and characteristics of learning and behavior, including Pavlovian conditioning, instrumental learning, and species-specific behavior. S/U or letter grading.

200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning and application of learning principles to goal-directed behaviors and development of innovative programs under guidance of faculty and teaching assistants. Consult Undergraduate Advising Office, 1531 Franz Hall, for contracts and further information. Only 12 units from courses 192, 193, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. P/NP grading.

205A. Behavioral Neuroendocrinology. (2) Lecture, three hours. Designed for graduate students. Mechanisms of hormone action on the brain that influence behavior, including various endocrinological effects in development and transient actions in adulthood. Using a comparative approach, topics include sexual differentiation, long-term effects of stress, seasonal and other changes in adulthood, and age-related effects. P/NP grading.

205B. Human Neurophysiology. (2) Lecture, three hours. Designed for graduate students. Examination of higher cognitive processes in terms of neural mechanisms that underlie these processes. Topics include cortical modularity and organization, coordinated sensory representation, language, regional functional specialization, attention, and regulation of cortical function by extrastriatal systems.

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,” neurotropic agents). Discussion of their roles in normal brain physiology, followed by detailed analyses of their perturbations in various disease states. Particular emphasis on current and past thinking about Alzheimer’s disease, Parkinsonism, Huntington’s disease, and Down’s syndrome.

205D. Clinical Psychopharmacology. (2) Lecture, three hours. Designed for graduate students. General principles of brain neurotransmitters, including synthesis, cell bodies and pathways, and receptor subtypes. General principles of drug administration and pharmacokinetics. Major classes of psychoactive drugs, animal models, and “atypical” compounds.

205E. Psychobiology of Emotion and Stress. (2) Lecture, three hours. Designed for graduate students. Overview of literature on role of the brain and autonomic and endocrine systems in emotion and stress-related responses. Some emphasis on involvement of neurotransmitters, neuropeptides, and hormones in emotional plasticity, visceral function, and bodily diseases.

205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of engrams. Cell biology of plasticity, including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to make learning possible.

205G. Pain. (2) Lecture, three hours. Designed for graduate students. Consideration of pain from both basic science and clinical perspectives. Consideration of nociceptors, spinal cord, brain mechanisms, pain inhibition, and role of endogenous opioids. Effects of pain and stress on immune system.

205I. Motor Coordination. (2) Lecture, three hours. Designed for graduate students. Elementary and complex units of behavior: reflexes, seroms, oscillators, and central pattern generators. Principles of coordination: effector eency control, oscillatory coupling, potentiation, and depotentiation. Relation between levels of integration and anatomical levels: transections, lesions, focal stimulation, and single unit recordings.

205J. Homeostatic Drive, Hunger, and Thirst. (2) Lecture, three hours. Designed for graduate students. Homeostasis used as framework within which ingestive behavior is discussed. Analysis of thirst on basis of depictions of body fluid compartments. Consideration of hunger, focusing on two theories — “Glucosatomic” and “Energostatic.”

205K. Vision Neurobiology. (2) Lecture, three hours. Designed for graduate students. Exploration of anatomy, physiology, and computation in visual systems, focusing on retina, visual cortex, and overall performance.

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.
205M. Neuropsychology of Perception. (2) Lecture, three hours (five weeks). Designed for graduate students examining neural substrates of high-level visual processing. Topics include agranular and characteristic of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. S/U or letter grading.


207A-207B-207C. Seminars: Physiological Psychology. (4-4-4) Lecture: course 115.


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 critiqued in depth. 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.

220B. Perceptual Development in Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Research design and methodological issues in experimental and nonequivalent social research.

220C. Advanced Social Psychology. (4) Lecture, three hours. Requisite: course 220A or 220D. Review of contemporary topics and issues in social psychological research and theory.

220D. Introduction to Social Psychology. (4) Lecture, three hours. Theory, methods of graduate students. Introduction to theory and research in social psychology for students who are not psychology majors. Service course for graduate students in education, sociology, political science, management, public health, etc.


222A. Interpersonal Relations. (4) Discussion, three hours. Requisite: 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, health care: patient/doctor/nurse, parent/child, teacher/student, political figures, etc.


225. Seminar: Problems in Social Psychology. (4) Discussion, three hours. Requisites: courses 220A, 220B. May be repeated with credit with consent of instructor.

226A-226B-226C. Current Literature in Social Psychology. (2-2-2) Discussion, 90 minutes. Course 226A is limited to first-year social psychology students and is intended to acquaint social psychology students with consent of instructor. Recent and current research papers in social psychology presented by members of seminar and their significance and methodology discussed and critiqued in depth. S/U grading.

227. Health Psychology. (4) Lecture, two hours; discussion, one hour. Preparation: undergraduate degree. Prerequisite: social psychology course. Emphasis on 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 health care and long-term care.

M228A. Proseminar: Political Psychology. (4) (Same as History M236A and Political Science M261A.) Discussion, three hours. Introduction to political psychology, psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

M228B. Seminar: Political Psychology. (4) (Same as Political Science M261D.) Discussion, three hours. Requisite: course 220A or Political Science M261A. Examination of theories of political socialization, rational conflict, mass political movements, and public opinion.

M228C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E.) Discussion, three hours.

229. Social Cognition. (4) Lecture, one hour; discussion, two hours. Social cognition is concerned with how people organize and interpret social information in their environment. Seminar provides broad background in the field and also gives depth and focus on particular research topics in the field. Weekly papers, as well as a lengthy final paper, required.

231. Psychology of Gender. (4) Seminar, three hours. Preparation: any course on gender/women’s studies. Critical evaluation of current research and theory concerning gender of gender, drawing on work from various areas of psychology to understand sources of gender differentiation and its consequences for human behavior and social interaction.

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 construction, 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 theory. Discussion-oriented, with emphasis on operationalizing predictions concerning function.

233. Seminar: Environmental Psychology. (4) Requisites: courses 235, 250A, 250B. Critical review of work in environmental psychology designed to identify basic dimensions for analysis of man-environment relationships. Use of human emotional responses to environments as intervening variables linking specific stimulus qualities to a variety of approach-avoidance behaviors. Individual differences and drug-induced states as they 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 nature versus nurture and 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 problems associated with competitive sport for children. Sport is presented as a major achievement domain for young participants. Topics include sources and consequences of competitiveness; significant and influential antecedents and predictors of performance, determinants of participation and dropping out, and socialization through sport.


M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychiatry M238B.) Seminar, three hours. Designed for graduate students. Techniques for conducting research and conducting and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M239. Personality, Motivation, and Attribution. (4) (Same as Education M215.) 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 affirmative domains.

240A-240B. Developmental Psychology. (4-4) Lecture, three hours. Preparation: one undergraduate developmental psychology course. Designed for graduate students. Consideration of variables influencing cognitive social and emotional development of the human organism from conception through adolescence. Emphasis on research methodology and research base for current theories of development.

241. Current Developments in Developmental Psychology. (1) Discussion. 90 minutes. Designed for graduate developmental psychology students. Presentation of papers on current advances in developmental psychology and closely related areas by experts in the field. Emphasis on approaches to a problem, making it suitable to interweave presentations by graduate students. S/U grading.

242A-M242G. Seminars: Developmental Psychology. (4 each) Each course may be taken independently and may be repeated for credit.

242A. Perceptual Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242B. Cognitive Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242C. Socialization. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242D. Social Development and Education. (4) (Same as Education M217A.) Seminar, four hours. Biographical and familial, school, and other influences on the development of children. Research on gender and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

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.

M242G. Adolescent Development. (4) (Same as Education M217F.) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include pubertal development, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.


244. Critical Problems in Developmental Psychology. (4) Lecture, three hours. Requisites: courses 240A, 240B. Socialization processes in human development and implications for current research and methodology. S/U grading depending on interest of class and instructor. May be repeated for credit with consent of instructor.
M245. Personality Development and Education. (4) (Same as Education M217C.) 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.

M246. Psychological Aspects of Mental Retardation. (4) (Same as Psychiatry M246.) Lecture, 90 minutes. Discussion of psychological aspects of mental retardation, including classification, description, etiology, theory, prevention, treatment, assessment, modern and future developments, and input from other disciplines (ethics, law, religion, welfare systems).

249. Evaluation Research. (4) Requisites: courses 250A, 250B. Introduction to evaluation research in psychology, with emphasis on clinical, community, and social psychology applications. Survey includes policy and strategy issues, design of evaluative studies, data analysis, and utilization of findings.

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.

251A-251B-251C. Research Methods. (4-4-4) Described 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 grading (course 251A only).

252A. Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of data having multiple dependent variables. Topics include continuous multivariate distributions, multiple regression, multivariate analysis of variance, discriminant analysis, canonical correlation, principal component analysis. Applications from clinical, cognitive, physiological, and social psychology.

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. Psychological Scaling. (4) Lecture, three hours. Designed for graduate students. Theory of measurement, law of comparative judgment, methods of unidimensional scaling, multidimensional scaling, and related topics of current interest.


M256. Advanced Regression Analysis. (4) (Same as Political Science M200E.) Seminar, three hours. Diagnosis of measurement error, cross validation, resampling, outliers, missing data, geometry of regression, validity of assumptions, categorical dependent variables, transformation of variables. Access to Macintosh computer very helpful.

M257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208B.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling; theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured-means factory analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues.


259. Quantitative Methods in Cognitive Psychology. (4) Requisites: courses 250A, 250B. Number of nonstatistical mathematical methods and techniques commonly used in cognitive psychology. Topics include Markov chains, other stochastic processes, queueing theory, information theory, frequency analysis, etc.

260A-260B-260C. Proseminars: 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, research in 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?

262. Human Learning and Memory. (4) Lecture, three hours. Contemporary theory and research in human verbal learning and memory; verbal and nonverbal learning and memory processes, structure and organization of short- and long-term memory.


265. Thinking. (4) Lecture, three hours. Contemporary theory and research in thinking, problem solving, inference, semantic memory, internal representation of knowledge, imagery, concepts.


268A-268E. Seminars: Human Information Processing. (4 each) Seminar, three hours. Topics vary with interests of instructor. Each course may be taken independently and may be repeated for credit. 268A: Perception; 268B: Human Learning and Memory; 268C: Judgment and Decision Processes; 268D: Language and Cognition; 268E: Human Performance.

269. Seminar: Cognitive Psychology. (4) Seminar, three hours. Discussion of problems in cognitive psychology that encompass more than a single subfield of the area. May be repeated for credit.


271D. Clinical Research Laboratory. (2) Discussion, one hour; laboratory, one hour. Corequisites: courses 270A or 270B, and 271A or 271B or 271C. Designed for graduate clinical psychology students. Acquaints students with faculty research interests and involves them in their course 251 research at an early stage to insure completion. S/U grading.

271E-271F. Clinical Research Laboratories. (2-2) Requisite: course 271D. Designed for graduate clinical psychology students. Required of first-year clinical psychology students. S/U grading. 271E. Brief overview of research design issued 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.

272A-272G. Advanced Clinical Psychological Methods. (4 each) Each course may be taken independently for credit.

272A. Behavior Modification with Children. (4) Seminar, three hours. Corequisites: courses 270A or 270B or 270C, and 271A or 271B or 271C. Course in series of clinical intervention and assessment offerings for second- and third-year clinical students that covers behavior modification research and practice in clinic, school, institution, and home settings. May be taken independently for credit.

272C. Clinical Interventions for Psychological Problems of Children. (4) Seminar, three hours. Requisites or corequisites: course 401 or 451. May be taken independently for credit.

272D. Family Therapy and Family Dynamics. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit.

272E. Special Problems. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit.

272F. Behavior Modification with Adults. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. Designed for second-year graduate clinical psychology students. Current cognitive behavior modification principles and techniques. Major conceptual issues; specific techniques demonstrated and practiced by students to cover a range of adult problems such as depression, stress and anxiety, anger management, assertion problems. May be taken independently for credit.

272G. Marital Therapies. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses 270A, 270B, 270C, 271A, 271B, 271C. Examination of assessment and treatment approaches for relationship problems in couples. Presentation, discussion, and illustration of procedures derived from social-learning, psychodynamic, and systems theories, with relevant research findings. May be taken independently for credit.

272A-272B-272C. 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 various topics needed by clinical psychologists in their clinical work, including legal and ethical issues, child abuse, suicide assessment, issues in empirically validated treatments, psychiatric consultation and psychoactive medications, working with diverse client populations, etc. S/U or letter grading.

276. Clinical Approaches to Children with Learning and Related Behavior Problems. (4) Lecture, three hours; discussion, one hour. Designed for Ph.D. students. Theoretical and research issues and problems related to purposes of and practices involved in assessment and correction approaches for children with learning and behavior problems. Practiceum experiences in content and provide opportunities to improve research and clinical competence.

277. Advanced Clinical Assessment. (4) (Formerly numbered 2777M-2777.) Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, clinical interpretation, case studies, psychological test battery, psychopharmacology, and application of assessment to problems in psychotherapy. S/U or letter grading.

279. Seminar: Research in Psychopathology. (4) Seminar, four hours. 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 (depression, manic depressive illness), including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are asked to complete a reading list and required to make a presentation or prepare a research paper.

283. Psychopathology. (4) Survey of dominant psychopathological families of psychopathology, including analysis of status of various theories concerned with etiology and mediating mechanisms of personality, neurotic, schizophrenic spectrum, and affective disturbances.


286. Issues and Concepts of Clinical Psychology. (4) Open to graduate students in majors other than clinical psychology. Survey of major issues and alternatives in current practice. Emphasis on assessment and intervention, with consideration of historical, theoretical, and research bases for current trends.

287. Critical Problems in Clinical Research Methodology. (4) Requisites: courses 250A, 250B. Special problems of measurement and design in clinical research.

289A-289B-289C. Current Issues in Clinical Psychology. (1-1-1) Discussion, two hours. Designed for first-year graduate clinical psychology students. Presentation of research and applied topics relevant to clinical psychology. In Progress and S/U grading.

290. History of Psychology. (4) Philosophical and historical context of contemporary psychology. Major trends from the 19th century to contemporary issues.


292. Biobehavioral Mechanisms of Stress and Disease. (4) Laboratory, three hours. Designed for graduate psychology students. Behavior/physiology interactions of some major bodily systems: nervous, cardiovascular, gastrointestinal, and endocrine systems. Usual and altered function of these systems (e.g., stress) as these can promote permanent tissue injuries, disease, or improved bodily function, health enhancement.

293. Behavioral and Psychophysiological Problems of Alcoholism. (4) Behavioral and psychophysiological characteristics of alcoholism, along with theories concerning etiology and treatment. Experimental approaches.

M294. Seminar: Neural and Behavioral Endocrinology. (2) (Same as Neurobiology M255 and Psychology M255.) Seminar, one hour; discussion, one hour. Topics include hormonal biochemistry and pharmacology. Hypothalamic/hypophysal interactions, both hormonal and neural. Structure and function of the hypothalamus and the neural control of reproductive and other behaviors. Sexual differentiation of brain and behavior. Stress: hormonal, behavioral, and neural aspects. Aging of reproductive behaviors and influences.

297. Issues in Social Development of the Minority Child. (4) Seminar, three hours. Designed for graduate students. Critical evaluation and integration of existing research on social psychological development of the minority child. Emphasis on socialization of cognitive and personality style, with goal of empirically clarifying issues raised in this area of development.

298. Special Problems in Psychology. (4) Content depends on interests of particular instructor. May be repeated for credit.

299. Developmental Methodology. (4) Coverage of both theory and methods in measuring age-related changes in personality. Experimental designs and data analytic solutions to problems in measurement of change. Some experience in analysis of actual data sets.

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

401. Fieldwork in Clinical Psychology. (1 to 12) 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).

402. Clinical Research Practicum. (2) 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) Under faculty supervision, group of students meets each week for a quarter in a self-led study group to pursue a 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) Preparation: completion of Ph.D. 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.

410D-410E-410F. Clinical Assessment Supervision. (4-4-4) Discussion, 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.

420A-420B. Health Psychology Practicum. (2-2) Designed for graduate students. Determination of what areas of health, illness, treatment, and delivery of treatment can be elucidated by understanding of psychological concepts and research; psychological perspective on these problems; how psychological perspective might be enlarged and extended in the medical area. Through practical field placement, students apply knowledge acquired in class to research observation and/or clinical work in the field.

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 interview surveys.

425. Health Psychology Lecture Series. (2) Clinicians and researchers in health psychology from Los Angeles area present their research, programs, and/or clinical work as part of a training program in health psychology. May be repeated for credit. S/U grading.


454. Internship in Industrial Psychology. (2 to 4) Fieldwork, to be arranged. S/U or letter grading.

495. Presentation of Psychological Materials. (4) Seminar, to be arranged. Supervised practicum in undertaking teaching. Students serve as discussion section leaders in selected undergraduate courses. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean. For most candidates, internship or clinical work as part of a training program in health psychology. Used to record enrolment 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 596 course is required during second year of graduate study, and one 596 or 599 course is required during each succeeding year of graduate study. (Terminal M.A. candidates are exempt from this requirement.) S/U grading.

597. Individual Studies. (2 to 12) Tutorial, to be arranged. Designed primarily as preparation for Ph.D. qualifying examinations. May be required by some area committees as a requisite for taking examinations. S/U grading.

599. Research for Ph.D. 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.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Public Health offers Master of Public Health (M.P.H.) and Doctor of Public Health (Dr.P.H.) degrees.

For information on the M.S. and Ph.D. degrees in Biostatistics, Environmental Health Sciences, Epidemiology, or Health Services, or the M.S. and Ph.D. degrees in Public Health within the Department of Community Health Sciences, see the listings for those departments. For information on the interdepartmental D.Env. degree program housed in the Department of Environmental Health Sciences, see the listing for Environmental Science and Engineering. See the listing for Molecular Toxicology for information on the interdepartmental Ph.D. program in Molecular Toxicology.

The M.S. program in Preventive Medicine and Public Health is not admitting new students at this time.

Certain degrees within the School of Public Health are not offered by the individual departments but are administered on a schoolwide level: the Master of Public Health; the Doctor of Public Health; four concurrent degree programs: M.B.A./M.P.H. with the John E. Anderson Graduate School of Management, J.D./M.P.H. with the School of Law, and M.A./M.P.H. with Asian American Studies and with Islamic Studies; and three articulated degree programs: M.D./M.P.H. with the School of Medicine and M.A./M.P.H. with African Studies and with Latin American Studies.

Public Health

Lower Division Course


Upper Division Courses


M151. Health Care in Transitional Communities. (4) (Formerly numbered Health Services 150.) Lecture, four hours. Designed for juniors/seniors. Exploration of nation’s health challenges, epidemiologic basis of public’s health, organization and financing of health services in the U.S. and elsewhere, and current strategies for advancing people’s health. Letter grading.

M151. Health Care in Transitional 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 health care in transitional and disadvantaged communities. Fieldwork required. Letter grading.

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PUBLIC POLICY AND SOCIAL RESEARCH SCHOOLWIDE PROGRAMS

School of Public Policy and Social Research

UCLA
3357M Public Policy Building
Box 951656
Los Angeles, CA 90095-1656
(310) 206-4613
e-mail: ppminor@sppsr.ucla.edu
http://www.sppsr.ucla.edu/frame/publicpolicyminor_frame.cfm

Scope and Objectives

The School of Public Policy and Social Research offers an undergraduate minor in Public Policy.

Undergraduate Study

Public Policy Minor

The Public Policy minor provides undergraduates with a systematic overview of public policy questions, deals with these questions in theoretical and conceptual ways, and exposes students to practical issues of public policy through the examination of specific policy issues and real-world policy questions.

To enter the minor, students must have an overall grade-point average of 2.0 or better, enroll in Policy Studies 10A, and file a petition at the School of Public Policy and Social Research Office of Academic Services, 3357 Public Policy Building. For further information, contact Professor Randall Crane at (310) 206-4613.

Required Core Courses (8 units): Policy Studies 10A and one course from 10B, M116, or Honors Collegium 82. Highly recommended: one statistics course.

Required Upper Division Courses (20 units): (1) Three courses from one of the following clusters: gender and multiculturalism cluster—Policy Studies M120, Social Welfare 101, 104A, 104B, M104C, 104F, M108, Urban Planning M194, 187; labor and work cluster—Policy Studies 141, C142, C144, 145, 148; policy studies cluster—three upper division policy studies courses (190 may be repeated for credit with topic change); social welfare cluster—three upper division social welfare courses; urban policy and planning cluster—three upper division urban planning courses (193 may be repeated for credit with topic change); (2) one elective course offered by the School of Public Policy and Social Research not used to satisfy the core or cluster requirement; (3) capstone project to be completed during the senior year which may be satisfied by one of the following: (a) Policy Studies 197, (b) one upper division or graduate course and one 199 course requiring a comprehensive policy paper to be taken concurrently with the same instructor in the School of Public Policy and Social Research, (c) Political Science M197DC, or (d) one 199 course taken in conjunction with a policy, planning, or social work internship, and a comprehensive policy paper written under the guidance of a School of Public Policy and Social Research faculty member.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

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RADIATION ONCOLOGY

David Geffen School of Medicine

UCLA
B265 UCLA Medical Plaza 200
Box 956951
Los Angeles, CA 90095-6951
(310) 794-1252
fax: (310) 794-9795
http://www.radonc.ucla.edu

Chairs
H. Rodney Withers, M.D., D.Sc., Chair
Scope and Objectives

The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Medical Center, West Los Angeles VA Medical Center, and divisions of experimental radiation biology and medical radiation physics. Research and teaching facilities are available at the UCLA Medical Plaza, UCLA Medical Center, and West Los Angeles VA Medical Center.

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 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 further details on the Department of Radiation Oncology and a listing of the courses offered, see http://www.radonc.ucla.edu.

Radiological Sciences

David Geffen School of Medicine

UCLA

BL-428 Center for the Health Sciences
Box 951721
Los Angeles, CA 90095-1721
(310) 825-6800
fax: (310) 794-6613
http://www.radsci.ucla.edu

Chairs

Dieter R. Enzmann, M.D. (Leo G. Rigler Professor of Radiological Sciences), Chair
Denise Aberle, M.D., Vice Chair
Barbara M. Kedell-Wootton, M.D., Vice Chair

Scope and Objectives

The medical student program in 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 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, nuclear medicine, 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 at the end of the year.

Greater depth of experience is provided by the four weeks of elective clerkship offered to fourth-year medical students which emphasizes training in the subspecialties selected by students from the list above.

For further details on the Department of Radiological Sciences and a listing of the courses offered, see http://www.radsci.ucla.edu:8000/academic/index.html.

Religion, Study of

Interdepartmental Program

College of Letters and Science

UCLA

329 Dodd Hall
Box 95145
Los Angeles, CA 90095-1451
(310) 206-1356, 825-4641
e-mail: arlecia@humnet.ucla.edu
http://www.humnet.ucla.edu/humnet/religion/
IDPHTM

S. Scott Bartchy, Ph.D., Chair

Faculty Advisory Committee

S. Scott Bartchy, Ph.D., Chair
William M. Bodiford, Ph.D.
Donald J. Cosentino, Ph.D.
Margaret C. Jacob, Ph.D.
Vinay Lal, Ph.D.
Herbert E. Plutschow, Ph.D.
David C. Rapoport, Ph.D., Emeritus
Claudia Rapp, D.PH.
Kenneth Reinhard, Ph.D.
Allen F. Roberts, Ph.D.
William Schniedewind, Ph.D.
Ronald W. Vroon, Ph.D.

Affiliated Faculty

Professors

Ruth H. Bock, Ph.D. (History)
Robert L. Brown, Ph.D. (Art History)
Robert E. Buswell, Ph.D. (East Asian Languages and Cultures)
Brian P. Copenhaver, Ph.D. (History, Philosophy)
Donald J. Cosentino, Ph.D. (World Arts and Cultures)
Susan Downey, Ph.D. (Art History)
Andrew R. Dyck, Ph.D. (Classics)
Robert K. Englund, Ph.D. (Near Eastern Languages and Cultures)
Alan P. Fiske, Ph.D. (Anthropology)
Eric L. Gans, Ph.D. (French)
Patrick Geary, Ph.D. (History)
Robert A. Hill, M.Sc. (History)
Margaret C. Jacob, Ph.D. (History)
Michael O. Jones, Ph.D. (World Arts and Cultures)
Henry A. Kelly, Ph.D. (English)
Sussanne Lohmann, Ph.D. (Political Science)
Donald F. McCullum, Ph.D. (Art History)
Ronald J. Mellor, Ph.D. (History)
David N. Myers, Ph.D. (History)
Joseph F. Nagy, Ph.D. (English)
Peter Nabokov, Ph.D. (World Arts and Cultures)
Calvin G. Normore, Ph.D. (Philosophy)
Herman Dom, Ph.D. (History)
Herbert E. Plutschow, Ph.D. (East Asian Languages and Cultures)
Ismael K. Poonawala, Ph.D. (Near Eastern Languages and Cultures)
Allen F. Roberts, Ph.D. (World Arts and Cultures)
Teotilo F. Ruiz, Ph.D. (History)
Yona Sabar, Ph.D. (Near Eastern Languages and Cultures)
Gregory Schopen, Ph.D. (East Asian Languages and Cultures)
Ronald W. Vroon, Ph.D. (Slavic Languages and Literatures)
Hossein Ziai, Ph.D. (Near Eastern Languages and Cultures)

Professors Emeriti

Marilyn McCord Adams, Ph.D. (Philosophy)
Robert Merrihew Adams, Ph.D. (Philosophy)
Kees W. Bolle, Ph.D. (Near Eastern Languages and Cultures)
Benjamin A. Elman, Ph.D. (History)
Daniel W. Howe, Ph.D. (History)
Jacques Maquet, Ph.D. (Anthropology)
David C. Rapoport, Ph.D. (Political Science)
Damodar R. SarDesai, Ph.D. (History)
Stanislav Seeger, Ph.D. (Near Eastern Languages and Cultures)

Associate Professors

Charles L. Batten, Jr., Ph.D. (English)
Irene Bierman, Ph.D. (Art History)
William M. Bodiford, Ph.D. (East Asian Languages and Cultures)
Michael D. Cooperson, Ph.D. (Near Eastern Languages and Cultures)
John B. Duncan, Ph.D. (East Asian Languages and Cultures)
Lowell Gallagher, Ph.D. (English)
James L. Gelvin, Ph.D. (History)
Vinay Lal, Ph.D. (History)
Michael G. Morony, Ph.D. (History)
Claudia Rapp, D. Phil. (History)
Kenneth Reinhard, Ph.D. (Comparative Literature, English)
The UCLA major in the Study of Religion is designed to give students a broad humanistic perspective. It introduces students to several religious traditions and thus to an appreciation of the very nucleus of civilization in various periods of history and various parts of the world, as well as to an understanding of fundamental human orientations. The program also provides opportunity to study one or more particular religious traditions in greater depth. Coherence and integrity in the program are furthered by courses dealing with philosophical problems in religion, sociological analysis, and general anthropological theories and reflections.

### Undergraduate Study

#### Study of Religion B.A.

##### Preparation for the Major

**Required:** History 4; Philosophy 2; two courses from Anthropology 9, East Asian Languages and Cultures 60, History 1A, 1B, 1C, 9A, 9C, 9D, 10A, 10B, 11A, 11B.

##### Transfer Students

To be admitted as Study of Religion majors, transfer students 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.

#### The Major

**Required:** A minimum of 14 upper division courses from the list below, of which at least four (including Study of Religion 100 and Philosophy 175) must be from Group I, at least two must be from each of Groups II and IV, and at least three must be from Group III (at least one on each of the three religious traditions listed). No more than five of the 14 may be from any one group. A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. Variable topics courses not listed below (e.g., History 197) may be approved by the adviser as satisfying requirements for which their content is appropriate. A maximum of two upper division courses, not listed below, in an ancient language relevant to the course of study may be applied toward the major requirements (but not the group requirements) with consent of the adviser.

Special studies courses (199) may be applied toward the major but not toward a group requirement; a maximum of 12 units, approved by the adviser, may be applied. No course for the major or preparation for the major may be taken on a P/NP grading basis.

### 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 199 courses under the guidance of the sponsoring professor. The first 199 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 14 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 199 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For further information, contact Professor S. Scott Barty at the program address.

#### Study of Religion

##### Upper Division Courses

**100. Undergraduate Seminar: Study of Religion.** (4) Limited to 20 students. 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.

**110. Religion and Violence.** (4) Seminar, three hours; discussion, one hour. Exploration of capacity of religion to mobilize and legitimate violence. Materials include theoretical texts by Rene Girard, Walter Burkert, Jonathan Z. Smith, and David Rapoport and case studies dealing with religion and violence in India, Northern Ireland, Egypt, Lebanon, Israel, Palestine, Sri Lanka, and the U.S. Letter grading.

**120. Abrahamic Religions: Traditions in Tension.** (4) Seminar, three hours. Examination of Abrahamic tradition as received and developed by Jews, Christians, and Muslims according to rubrics of linkage and interaction, with view both to potential clashes in the 21st century and to resources inherent in these traditions for heading off such clashes and misunderstandings. Letter grading.

**199. Special Studies.** (2 to 4) Tutorial, to be arranged. Designed for juniors/seniors. Intensive directed research program. Twelve units may be applied toward the major. Letter grading.

##### Course List

Courses marked with an asterisk have readings in foreign languages. See department course listings for requisites.

### Group I: Methods

**Anthropology**

130. Study of Culture  
156. Comparative Religion

**History**

194C. Jesus of Nazareth in Historical Research  
1975. Topics in Philosophy of Religion

**Philosophy**

100. Undergraduate Seminar: Study of Religion  
110. Religion and Violence  
120. Abrahamic Religions: Traditions in Tension

**Theater**

101A. History of World Theater and Drama: Ritual and Religious Drama

### Group II: Nonliterate and Ancient Religious Traditions

**Ancient Near East (Near Eastern Languages)**

130. Ancient Egyptian Religion  
134. Oral Traditions in Africa

**Anthropology**

114P. Ancient Civilizations of Western Middle America (Nahuatl Sphere)  
114Q. Ancient Civilizations of Eastern Middle America (Maya Sphere)  
171. Sub-Saharan Africa  
174P. Ethnography of South American Indians  
177. Cultures of the Pacific

**Classics**

166A. Greek Religion  
166B. Roman Religion  
167. Greek and Roman Magic  
168. Comparative Mythology

**English**

111D. Celtic Mythology

**History**

M193D. Religions of Ancient Near East  
170. Religion in Ancient Iran  
179. Baltic and Slavic Folklore and Mythology

**World Arts and Cultures**

C109B. Dance in Native American Cultures  
111B. Dance in South Asia  
112B. Dance in Southeast Asia

### Group III: Western and Near Eastern Religious Traditions

**Christianity**

Art History  
105A Early Christian Art  
105B Early Christian Art

**Classics**

M170C. Power and Imagination in Byzantium  
130. Readings in the New Testament

**Greek (Classics)**

119M. The Christian Church, 100 to 1517  
120M. The Christian Religion, 100 to 1530  
125B. History of Modern Europe: Baroque Culture and Absolutist Politics, 1600 to 1715  
150C. History of Religion in the U.S.  
194A. History of Early Christians  
194B. Religious Environment of Early Christians  
194C. Jesus of Nazareth in Historical Research

**Philosophy**

100B. Medieval and Early Modern Philosophy  
107. Topics in Medieval Philosophy  
118. Kierkegaard

**Slavic (Slavic Languages)**

201. Introduction to Old Church Slavic
175. Introduction to Traditional Korean Thought

**ROMANCE LINGUISTICS AND LITERATURE**

Interdepartmental Program
College of Letters and Science

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Massimo Ciavolella, Ph.D., Chair

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A. Carlos Quiciol, Ph.D.
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Malina Stefanovska, Ph.D. (French and Francophone Studies)

Scope and Objectives

The Romance Linguistics and Literature Program emphasizes modern linguistic and literary theories in the study of Romance languages. Linguistic and literary theories can be pursued independently or jointly; however, the integration of linguistic and literary knowledge is taken to be one of the highest aims of this interdepartmental graduate program.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees; available at the Graduate Division website, http://www.gradnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Romance Linguistics and Literature Program offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Romance Linguistics and Literature.

Romance Linguistics and Literature

Graduate Courses

**M202A-M202B. Comparative Romance Historical Grammar. (4-4) (Formerly numbered 202A-202B.)** (Same as Linguistics CM228A-CM228B.) Lecture, three hours. Each course may be taken independently for credit. S/U or letter grading. **M202A. Phonology. Principal sound changes from late Latin to main Romance dialects. M202B. Morphology and Syntax. Prime morpho-syntactic changes occurring between late Latin and main Romance dialects.**

**M204A-M204B. Romance Syntax. French. (4-4) (Formerly numbered 204A-204B.)** (Same as Linguistics CM228A-CM228B.) Lecture, four hours. Preparation: some knowledge of French (or a Romance language). Requisite: Linguistics 120B. Course M204A is requisite to M204B. Aspects of structure of French language, with emphasis on properties of construction not found in English. S/U or letter grading.

**206. Romance Language Structure. (4) Lecture, three hours. Requisite: Linguistics 120B. Aspects of grammatical structure of a selected Romance language. May be repeated for credit with topic change. S/U or letter grading.**

**211. Comparative Romance Syntax. (4) Lecture, three hours. Requisite: French 210A or Portuguese 204A or Spanish 204A. Comparative study of syntactic processes in Romance languages. Investigation of parameters underlying linguistic variation.**

**255. Topics in Romance Syntax. (1 to 4) Topics in syntax of Romance languages, with emphasis on recent development in comparative studies; theoretical innovations based on Romance syntax.**
Course List

In consultation with the appropriate adviser(s), courses should be selected with an eye to the organic relationship between them, preferably among those listed below and/or their requisites:

Introductory Courses

Italian
201. Bibliography and Methods of Research
Spanish
M200. Research Resources

Linguistics Courses

Grammatical Theory: Linguistics
201. Phonological Theory II
206. Syntactic Theory II

Development of Romance Languages

Hispano-Romance: Spanish
M205A-M205B. Development of Portuguese and Hispanic-Romance: Spanish

Ital-Romance: Italian
223. Structures of Modern Italian
224. Italo-Romance Dialectology
225. Cultural History of Italian Language

Synchoric Linguistics

Italian
223. Structures of Modern Italian
Portuguese
202. Synchoric Morphology and Phonology
204A-204B. Generative Grammar
Spanish
202A. Phonology
202B. Morphology
204A-204B. Generative Syntax and Semantics

Studies in Linguistics and Dialectology: Spanish
256A-256B. Studies in Spanish Linguistics
257. Studies in Dialectology

Literature Courses

History of Ideas: French
207. Studies in History of Ideas

Literary Criticism: French
200. Contemporary French Theories
258A-258B. Studies in Literary Criticism

Italian
205A-205B. Studies in Criticism

Spanish
M201A-M201B. Literary Theory and Criticism

Philosophy and Language: French
259A-259B. Studies in Philosophy and Literature

Early Romance Literature

Petrarch: Italian
214C. Studies in Medieval Literature: Petrarch’s Caravaggio
251. Seminar: Petrarch

Studies in Early Romance Literature: French
215A-215B. Medieval Literature
250A. Major Medieval Texts
250B. Structures of Medieval Literature
250C. Problems in Medieval Literature

Italian
210. Studies in Early Italian Literature
214A-214F. Studies in Medieval Literature
215A-215B. Studies in 15th-Century Literature
250A-250D. Seminars: Dante
252. Seminar: Boccaccio

Portuguese
224. Early Portuguese Literature

Spanish
222. Medieval Epic and Narrative Poetry
223. Medieval Prose
262A-262B. Studies in Medieval Spanish Literature

Modern Romance Literature

Genre Studies: Portuguese
252. Studies in Early Portuguese Literature
253. Studies in Modern Portuguese Literature
254. Studies in Early Brazilian Literature
255. Studies in Modern Brazilian Literature

Studies in the 18th Century: French
218. Enlightenment
254A-254B. Studies in the 18th Century

Italian
218A-218D. Studies in 18th-Century Literature
256A-256B. Seminars: 18th Century

Portuguese
C227. 19th-Century Portuguese Literature
C232. 19th-Century Brazilian Literature and Culture

Spanish
229. Romanticism
239. Romanticism and Realism in Spanish-American Literature
270A-270B. Studies in 18th-Century Spanish Literature
277A-277B. Studies in Colonial Spanish-American Literature

Studies in the 19th Century: French
219. 19th Century
255A-255B. Studies in the 19th Century

Italian
219A-219D. Studies in 19th-Century Literature
257A-257B. Seminars: Romanticism

Portuguese
C228. Post-Romanticism and Naturalism in Portuguese Literature

Spanish
230. Realism and Naturalism
271A-271B. Studies in 19th-Century Spanish Literature
278A-278B. Studies in 19th-Century Spanish-American Literature

Studies in the 20th Century: French
220. 20th Century
256A-256B. Studies in Contemporary Literature
257A-257B. Studies in French-African Literature

Italian
220. Studies in Turn-of-the-Century Literature
221A-221E. Studies in 20th-Century Literature
258A-258B. Seminars: Contemporary Italian Literature

Portuguese
C229. 20th-Century Portuguese Literature
C234. Brazilian Modernism
C235. 20th-Century Brazilian Literature

Spanish
232. Spanish Prose Literature from 1898 to the Civil War
233. Spanish Prose Literature after the Civil War
234. Spanish Drama and Poetry from 1898 to the Civil War
235. Spanish Drama and Poetry after the Civil War
240. Major Currents in Modern Spanish-American Literature
243A-243B. Contemporary Spanish-American Poetry
244A-244B. Contemporary Spanish-American Novel
245. Contemporary Spanish-American Essay
272A-272B. Studies in 20th-Century Spanish Literature
280A-280B. Studies in Contemporary Spanish-American Literature

Renaissance and Baroque Literature

Cervantes: Spanish
227. Cervantes

Studies in Renaissance and Baroque Literature: French
216. Renaissance
217. 17th Century
251A-251B. Studies in the Renaissance
253A-253B. Studies in the 17th Century

Italian
216A-216E. Studies in the Renaissance
217. Studies in 17th-Century Literature
253A-253B-253C. Seminars: Chivalric Poetry in Italy
255A-255B. Seminars: Baroque
ROTC Programs
College of Letters and Science

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

This voluntary training allows students to qualify for an officer’s commission in the Army, Navy/Marine Corps, or Air Force 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). They are not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course requirements of the major. The Naval Science Department offers a minor in Naval Science. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four-year programs for incoming freshmen and two-year programs for students who apply early in their sophomore year. All have leadership laboratories which teach leadership and management skills.

All commissions are reserve commissions. Active duty 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 provide tuition, a book allowance, fees, and a tax-free monetary allowance between $250 and $400 per month during the academic year. Applications for four-year scholarships may be obtained by calling the appropriate department at UCLA — Army, (310) 825-7381; Air Force, (310) 825-1742; Navy/Marine Corps, (310) 825-3075 — or by writing to Armed Forces Opportunities, P.O. Box 2865, Huntington Station, NY 11746-2102. When writing, specify which service (Army, Navy/Marine Corps, Air Force) scholarship is desired. Applications for Army scholarships can also be obtained by calling (800) 872-7682. Completed applications should be submitted prior to August 15 (Air Force and Navy/Marine Corps) or by November 15 (Army) for early consideration, but no later than December 1 (all services) of the year preceding college matriculation. Two-year scholarship applications may be obtained from the appropriate UCLA department and are considered when received.

AEROSPACE STUDIES

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Professor Anthony D. Leppellere, M.B.A., Lieutenant Colonel
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Glen E. Willis, M.A.S., M.B.A., Captain

Scope and Objectives

Air Force ROTC provides 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 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

Four-Year Program

The four-year program is available to first-term freshmen and those full-time students with at least three and one half years of undergraduate and/or graduate study remaining and consists of an initial two-year General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 20A, 20B, and 20C), followed by a two-year Professional Officer Course (POC) described under Two-Year Program. GMC participation requires one hour of academic class 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 GMC and wish to enter POC attend a four-week field training course the summer following GMC completion. At field training, students are provided 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.

Two-Year Program

The two-year program is known as the Professional Officer Course (POC) and consists of Aerospace Studies 130A, 130B, 130C, 140A, 140B, and 140C. POC participation requires three hours of leadership laboratory and three hours of academic class each week during the academic year.

Requisites for the two-year program are successful completion of the GMC and a four-week field training course (see Four-Year Program above), or successful completion of a five-week field training program on an Air Force base during the summer preceding enrollment in the program.

Students interested in the five-week field training program must apply to the department chair early during Fall Quarter of their sophomore year. U.S. citizenship is required. There is no obligation to apply. Students are selected on a competitive basis with consideration given to academic major, grade-point average, aptitude examination scores, medical examination results, performance during an officer board interview, and a physical fitness test.

Students selected for the five-week summer field training are provided meals, quarters, clothing, and travel and incidental expenses. Subjects are the same as those in the four-week course plus the academic portion of the GMC (see Four-Year Program above).

Students enrolled in the POC incur a military obligation and are paid from $250 to $400 per month during the academic year. Additionally, they can qualify for up to $3,450 for tuition and textbooks. 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

Z. 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 an organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty. No grading.
1A-1B-1C. Foundation of U.S. Air Force. (2-2-2) Lecture, one hour. Survey course designed to introduce students to the U.S. Air Force and Air Force Reserve Officers’ Training Corps. Topics include mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and introduction to communication skills. P/NP or letter grading.

Sophomore-Year Courses
20A-20B-20C. Evolution of U.S. Air Force and Space Power. (2-2-2) Lecture, one hour. Historical survey of air and space power designed to motivate students to transition from Air Force ROTC cadet to officer candidate. Featured topics include Air Force heritage and leaders; introduction to air and space power through examination of competencies, functions, and doctrines; and continued application of communication skills. P/NP or letter grading.

Upper Division Courses
130A-130B-130C. Air Force Leadership Studies. (4-4-4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Use of case studies to examine Air Force leadership and management situations as means of demonstrating and exercising practical application of concepts being studied. 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 the military as a profession, officership, military justice, civilian control of the 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.

199. Special Studies in Aerospace Studies. (2 or 4) Tutorial, to be arranged. Course of study for undergraduates who wish to engage in independent research under direct supervision of a department faculty member. P/NP or letter grading.

MILITARY SCIENCE

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Philip Butch, M.S., Lieutenant Colonel
Barry A. Johnson, B.A., Major
Lorenzo R. Phillips, M.B.A., Major

Scope and Objectives
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 action 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, which 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 tuition and mandatory fees and provide a tiered stipend ranging from $2,500 to $4,000 per year and a $600 book allowance. Non-scholarship, contracted ROTC cadets also receive the tiered stipend of $2,500 to $4,000 per year. Students in the program also compete for over $35,000 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). Work-study opportunities are also available. 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, and engineering. Prior to completion of the ROTC program, students may request to go on active duty or serve part-time in the Army Reserve or National Guard.

Undergraduate Study
Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2-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 12 units of military science coursework and (2) the Advanced Course, two years of upper division study consisting of 13 units of military science coursework, one of the history courses listed below, and a six-week summer camp.

Army ROTC students must satisfy military history requirements by completing History 125E, 125F, 127A, 127B, 130, 147A, 148A, 148B, 148C, 152A, or 152B in lieu of Military Science 110, with consent of the ROTC adviser.

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 $350 and $400 a month for 10 months during each of the two academic years, plus military science books and 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 six-week National Advanced Leadership Camp 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. Students accepting ROTC Scholarships and a commission in the Regular Army, or who are selected to enter the Active Army, serve longer terms. ROTC students wishing to obtain advanced degrees may be granted a delay in reporting to their initial assignment.

Four-Year Program
Students are enrolled in the Basic Course (freshman and sophomore years) on a voluntary basis. After completion of the Basic Course and before entrance into the Advanced Course (junior and senior years), students are required to execute a contract with the Department of the Army agreeing to complete the Advanced Course and accept a commission if offered.

Two-Year Program
The two-year program is designed for students who receive placement credit for two years of ROTC and directly enter the Advanced Course. Placement credit may be given for completing three years of high school Junior ROTC, attending a paid ROTC Leaders’ Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service.

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. Distinguished graduates may qualify for a commission in the Regular Army.
Military Science

Lower Division Courses

Z. Leadership Laboratory. (No credit) Laboratory, three hours (lower division cadets) or four hours (upper division cadets). All cadets must be concurrently enrolled in a military science course; upper division cadets must also be under a contracted obligation with the department. Designed to allow cadets to apply leadership techniques and military skills taught in the classroom and to develop their confidence as future military officers. No grading.

10. Introduction to Leadership. (2) Lecture, one hour; discussion, one hour. Introduction to various individual differences, group dynamics, interpersonal relationships, and impact of society on leadership process. Introduction to external environmental pressures on a leader and psychology of the individual as a follower, examined in areas of motivation, peer pressures on a leader and psychology of the individual, to be arranged. Limited to juniors/seniors. Supervised independent studies and research for undergraduate students who desire to pursue topics of their own selection.

126. Military Professionalism and Ethics. (2) Lecture, three hours; discussion, 90 minutes. Ethical concepts held by America's military institution. Classification of the military as a profession, special social responsibilities of those in the military, values related to and accepted by military society, and an ethical reasoning/decision-making process and model.

125. Decision Making. (2) Lecture, one hour; discussion, one hour. Designed to present students who become commissioned officers with new insight into modern methods of managerial decision making and into various steps involved in the process. Introduction to various components of leadership and functions of management in order to understand various areas of problem analysis and decision making impact and how they fit into leadership and management. Various steps which comprise the problem analysis and decision-making processes.

123. Military Legal Systems. (2) Lecture, one hour; discussion, one hour. Introduction to theory and application of military law and legal systems, with emphasis on Uniform Code of Military Justice and rights of the accused under the constitution.

124. Principles of Land Navigation Applicable in Maneuver. (2) Lecture, one hour; discussion, one hour. Introduction to topographic maps and aerial photographs and their relation to land navigation; conceptual linkage to basic military tactics. Topics include map coordinate systems, scale and distance relationships, intersection and resection, photo interpretation, squad and platoon operations, and resource planning techniques. Introduction to new technologies, including Global Positioning Systems (GPS).

18. Modern Guerrilla Warfare. (2) Lecture, one hour; discussion, one hour. Limited to undergraduate students. Introduction to low intensity conflict and guerrilla strategies; explanation/discussion of political, economic, religious, and social factors contributing to civil unrest and/or insurgencies. Topics include non-military responses, military tactics, interrelationship of military and government, psychological warfare, and civic actions.

21. Psychology of Leadership I. (2) Lecture, one hour; discussion, one hour. Study of relationship of individual differences, group dynamics, formal organizational structures, and impact of society on leadership process. Introduction to external environmental pressures on a leader and psychology of the individual as a follower, examined in areas of motivation, peer pressures on a leader, and psychological norms.

24. Theory of Warfare. (2) Inquiry into theory, nature, causes, and elements of warfare, with attention also to evolution of weapons and warfare.

Upper Division Courses


112. Psychology of Leadership II. (3) Lecture, one hour; discussion, one hour. Introduction to various individual leadership styles and personalities to assist students in development of their own individual style. Different philosophies of leadership, along with dimensions of leader behavior. Special consideration to counseling, management, and communication techniques that must be mastered to be an effective leader.

113. Theory of Learning Applied to Teaching. (2) Lecture, one hour; discussion, one hour. Study of instructional processes, lesson content planning procedures, techniques of explanatory education, role of testing (including evaluation and analysis). Emphasis on development of training programs to maximize organizational effectiveness. PNP or letter grading.

199. Supervised Independent Studies. (1 to 3) Tutorial, to be arranged. Limited to juniors/seniors. Supervised independent studies and research for undergraduate students who desire to pursue topics of their own selection.

NAVAL SCIENCE

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Robert G. Wong, B.S., Lieutenant, U.S. Navy

Scope and Objectives

The Department of Naval Science provides professional training for students leading to a reserve commission at graduation in the U.S. Navy or Marine Corps. Through the Naval Reserve Officers' Training Corps (NROTC), scholarship students receive full tuition, fees, books, and subsistence pay of $250 to $400 per month. Non-scholarship students may apply to participate as members of the midshipman battalion under the NROTC College Program and, like NROTC Scholarship students, they also receive a reserve commission at graduation. Because of the rapid development of highly technical ship systems, aviation, and other military equipment, science and engineering majors are highly desirable; however, Navy/Marine Corps Scholarship students are currently available to students pursuing any major offered by the University, as long as they agree to complete basic technical requirements. In addition to University requirements, Navy option midshipmen must complete 26 units and Marine Corps option midshipmen 18 units of naval science courses, physical fitness test, and summer training cruises, each about four to six weeks long. Both Navy and Marine Corps option students must also pass a swimming test. The department also conducts a sail training program for all Navy midshipmen. All naval science courses are open to students who are not in the program but have an interest in the Navy/Marine Corps and related fields, such as engineering, navigation and naval operations, history, and management.

Undergraduate Study

Scholarship Program

The majority of naval science students attend the University on Navy/Marine Corps Scholarships which are awarded primarily on a four-year basis to high school seniors selected by a nationwide competition. A two-year upper division scholarship program is also available, with a similar selection process, to students who have not yet begun their junior year in college. Applications for both types of scholarships are due by December 1 and March 1, respectively, each year. In addition to tuition, fees, and uniforms, students receive subsistence pay of $250 to $400 per month and a book stipend. Scholarship students are obligated to serve on active duty for a minimum of four years following graduation and commissioning.

College Program (Nonscholarship)

Students attending the University 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. College Program students serve on active duty for a minimum of three years following graduation and commissioning.

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 cruise involves intensive Marine training. Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.
Naval Science Minor

The Naval Science minor is designed for students who wish to augment the major they are completing in another departmental program. Naval science courses are open to all students with an interest in history, national security, foreign policy, organizational leadership, management, ethics, and the military sciences.

To enter the minor, students must have an overall grade-point average of 2.0 or better. For further information, contact Donna Tenerelli at (310) 825-9075.

Required Lower Division Courses (10 units): Naval Science 1B, 20A, 20B.


All minor courses must be taken for a letter grade, with a grade-point average of 2.5 or better in each. Successful completion of the minor is indicated on the transcript and diploma.

Naval Science

Lower Division Courses

A. Naval Science Laboratory. (No credit) Laboratory, one hour. Requisite: course 102C. Limited to Naval Science ROTC midshipmen. Designed to cover service-specific administrative processes that are requisite knowledge for newly commissioned Navy and Marine Corps officers. No grading.

Z. Leadership Laboratory. (No credit) Laboratory, to be arranged. Mandated 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 active duty. No grading.

1A. Introduction to Naval Science. (2) Introduction to organization of the Naval Service, various components of the Navy, career opportunities, shipboard damage control, fire fighting, propulsion systems, and some customs and traditions of the Naval Service.

1B. Naval Ship Systems I. (4) Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability, and buoyancy.

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 functions inherent in weapon systems.

20B. Seapower and Maritime Affairs. (2) Conceptual study of seapower, emphasizing historical development of naval and commercial power. Seapower examined in relation to economic, political, and cultural strengths, focusing on current abilities of specific nations to use the oceans to attain national objectives.

Upper Division Courses


101B. Navigation II. (4) Requisite: course 101A. Study of rules of the road, shiphandling, and basic concepts of multiple ship formations and maneuvering. In-depth analysis of problems associated with operations on high seas and inland waters applying to civil and U.S. Naval craft.

102B. Naval Leadership and Management I. (4) Examination of current and classical leadership and management theories, with emphasis on their application to junior military officer's role as a leader/manager. Topics include managerial functions, performance appraisal, motivation theories, group dynamics, leadership theories, and communication.

102C. Leadership and Ethics. (2) Lecture, two hours. Requisite for Naval Science ROTC midshipmen: course 102B. Capstone course that examines principles of leadership and ethics relevant to military leaders through study and interactive discussion of classical and contemporary source documents and case studies. Letter grading.

103. Evolution of Warfare. (4) Study of evolution of warfare, including historical and comparative consideration of influence that leadership, political, economic, and sociological and technological development factors have had on warfare and influence they continue to exert in age of limited warfare.

104. Expeditionary Military Operations. (4) Study of historical use of expeditionary military operations, with particular emphasis on doctrine, tactics, and equipment used. Examination of topics through study of political and military objectives by focusing on historical examples, including Marathon, Gallipoli, World War II, Korea, Beirut, and Grenada. Examination of contemporary doctrine through study of recent operations.

199. Supervised Independent Studies. (1 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised independent studies and research for undergraduates who desire to pursue topics of their own selection. P/NP or letter grading.

Scandinavian Section

College of Letters and Science

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Professor
Timothy R. Tangherlini, Ph.D., Head

Professors
James R. Massengale, Ph.D.
Mary Kay Norseng, Ph.D.
Ross P. Shideler, Ph.D.

Professors Emeriti
Kenneth G. Chapman, Ph.D.
Jules L. Zentner, Ph.D.

Associate Professor
Timothy R. Tangherlini, Ph.D.

Adjunct Assistant Professor
Zoe Petrice Borovsky, Ph.D.

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 modern Scandinavian program educates students about Scandinavia through the study of its languages and literatures. The Scandinavian Section offers both undergraduate and graduate degrees in the languages and literatures of Denmark, Norway, and Sweden. Danish, Norwegian, and Swedish are mutually understandable languages, giving the student of one access to the literatures and cultures of the other two. Both undergraduate and graduate majors are expected to concentrate on one Scandinavian language, though they study the literatures of the other language areas.

Undergraduate Study

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, 110, 115) 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.

Scandinavian Languages

B.A.

Preparation for the Major

Required: Scandinavian 1, 2, 3, 4, and 5, or 11, 12, 13, 14, and 15, or 21, 22, 23, 24, and 25, or equivalent.

Transfer Students

To be admitted as Scandinavian Languages majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of either Swedish, Norwegian, or Danish.

The Major

Required: Twelve upper division Scandinavian courses, including 105 or 110 or 115, 141, 142, 143. As an option, three upper division courses in a related field may be taken if approved in advance by the undergraduate adviser. 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.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 M.A. degree in Scandinavian.

Scandinavian
Lower Division Courses
1. Elementary Swedish. (4) Discussion, four hours. P/NP or letter grading.
17. Elementary Danish. (4) Discussion, four hours. P/NP or letter grading.

50. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50W. Designated for students in courses 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. 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 Letters and Science Writing II requirement. Letter grading.

Upper Division Courses
130. Elementary Finnish. (4) Discussion, three hours. Introduction to standard language of Finland. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.
140. Backgrounds of Scandinavian Literature. (4) Discussion, three hours. Enforced requisite: course 15 or 25. Knowledge of a Scandinavian language not required for nonmajors. Readings and discussion of selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folktales through its rise in the 19th century and its 20th-century evolution. Discussion of contemporary critical theories to the novels. May be concurrently scheduled with course C264. P/NP or letter grading.
145. Getting Married: Strindberg and Battle of the Sexes. (4) Discussion, three hours. Enforced requisite: course 5 or 15 or 25. Knowledge of a Scandinavian language not required for nonmajors. Focus on Strindberg’s portrayals of marital conflict reflected and shaped literary representation of the so-called battle of the sexes. His work, as well as its literary transformations, placed into a Scandinavian, European, and feminist context. May be concurrently scheduled with course C252. P/NP or letter grading.
147. Pan’s Prophetes: Knut Hamsun and Other Interpreters of Nature as Modern Idyll. (4) Discussion, three hours. Enforced requisite: course 5 or 15 or 25. Knowledge of a Scandinavian language not required for nonmajors. 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 C254. P/NP or letter grading.
181. Contemporary Swedish Literature. (4) Discussion, three hours. Preparation: reading knowledge of a Scandinavian language. Reading and analysis of selected texts by major 20th-century Swedish authors.
184. Hans Christian Andersen. (4) Discussion, three hours. Enforced requisite: course 5 or 15 or 25. Knowledge of a Scandinavian language not required for nonmajors. Study of works 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.
C185. Seminar: Scandinavian Literature. (4) Discussion, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and undergraduate adviser. May be concurrently scheduled with course C265.
CM186. Voices of Women in Scandinavian Literature. (4) Same as Women’s Studies M186.) Discussion, three hours. Enforced requisite: course 5 or 15 or 25. Knowledge of a Scandinavian language not required for nonmajors. Readings and discussion of writings by Scandinavian women, as analyzed in historical, theoretical, sociological, critical, and comparative contexts. May be concurrently scheduled with course C266. P/NP or letter grading.
C251. Henrik Ibsen on the World Stage. (4) Discussion, three hours. Preparation: advanced knowledge of a modern Scandinavian language. Intensive study of works of Henrik Ibsen. May be concurrently scheduled with course C144. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.


C254. Pan’s Prophets: Knut Hamsun and Other Interpreters of Nature as Modern Idyll. (4) Discussion, three hours. Preparation: advanced knowledge of a modern Scandinavian language. Intensive study of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored the theme of nature as modern idyll. May be concurrently scheduled with course C147. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C256. Theory of the Scandinavian Novel. (4) Discussion, three hours. Preparation: advanced knowledge of a Scandinavian language. Analysis of preeminent structures of the Scandinavian novel from its 18th-century beginnings through its rise in the 19th century and its 20th-century evolution. Discussion of application of contemporary critical theories to the novel. May be concurrently scheduled with course C182. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C257. Scandinavian Folk Narrative. (4) Lecture, three hours. Preparation: course 3, 5 or 15 or 25. Knowledge of a Scandinavian language not required for nonmajors. Designed for students who have completed the equivalent of a regular course and who present such a course as a requisite.

C264. Theory of the Scandinavian Novel. (4) Discussion, three hours. Preparation: advanced knowledge of a Scandinavian language. Analysis of preeminent structures of the Scandinavian novel from its 18th-century beginnings through its rise in the 19th century and its 20th-century evolution. Discussion of application of contemporary critical theories to the novel. May be concurrently scheduled with course C182. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C265. Seminar: Scandinavian Literature. (4) Discussion, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and graduate advisor. May be concurrently scheduled with course C185.

C266. Voices of Women in Scandinavian Literature. (4) Discussion, three hours. Preparation: advanced knowledge of a modern Scandinavian language. Intensive study of writings by Scandinavian women writers analyzed in historical, theoretical, sociological, critical, and comparative contexts. May be concurrently scheduled with course CM186. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C267. Scandinavian Folk Narrative. (4) Lecture, three hours. Preparation: advanced knowledge of a modern Scandinavian language. Introdution to fairy tales and legends of Scandinavian tradition as well as to interpretive methodologies which strive to answer the question "why do people tell the stories that they tell?" Concurrently scheduled with course C188. Letter grading.

C270. Seminar: Literary Theory. (5) (Same as Comparative Literature M294, East Asian Languages M251, English M270, French M270, German M270, Italian M270, and Spanish 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.

C271. Study of Oral Tradition: History and Methods. (4) (Same as English M205A.) Seminar, three hours. Exploration of scholarly and literary attempts to study, define, analyze, promote, and/or appropriate oral traditions, from Homer and ancient Greece to origins of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

C272. Collecting Oral Tradition. (4) (Same as English M205B.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and texturalization 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, proverb, riddle, folktale, legend) or a set of closely related oral traditional genres. S/U or letter grading.

C275. Analyzing Oral Traditions. (4) Discussion, three hours. Preparation: advanced knowledge of a modern Scandinavian language. Intensive study of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored the theme of nature as modern idyll. May be concurrently scheduled with course C147. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C276. Analyzing Oral Traditions. (4) Discussion, three hours. Preparation: advanced knowledge of a modern Scandinavian language. Intensive study of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored the theme of nature as modern idyll. May be concurrently scheduled with course C147. Graduate students may meet as a group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.


Scope and Objectives

The Bachelor of Arts degree in Russian Language and Literature is designed to provide students with basic mastery of the Russian language and familiarity with the classics of Russian literature. Within the major, students concentrate either in Russian literature and culture or Russian linguistics. 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 requirements 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
two years of study (American Council of Teachers of Foreign Languages — ACTFL — level 1). Students interested in this program should consult the undergraduate adviser as early as possible.

The Bachelor of Arts degree in Slavic Languages and Literatures is designed to provide students with basic mastery of two Slavic languages and familiarity with their literatures, as well as general background in the cultural, political, and social history of the Slavic peoples. The department also offers a Bachelor of Arts degree in Russian Studies in which students achieve a basic mastery of the Russian language, as well as familiarity with Russian literature, history, and culture.

The graduate program provides advanced training in the Slavic literatures and linguistics leading to the M.A. and Ph.D. degrees. 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) Russian Language and Literature, with concentrations in Russian literature or Russian linguistics, (2) Slavic Languages and Literatures, and (3) Russian Studies. The equivalent of a major in Slavic or Russian Language and Literature is normally required for admission to the department's 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 Slavic 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.

**Russian Language and Literature B.A.**

**Preparation for the Major**

*Required:* Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency, 99A or 99B or 99BW.

**Transfer Students**

To be admitted as Russian Language and Literature majors, transfer students 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.

**The Major**

*Required:* Thirteen courses (52 units), including Russian 100A and 100B, or 101A, 101B, and 101C, and 118, 119, 120, 123, 130A, 140A. Four or five additional courses must be selected from Russian 102A, 102B, 102C, 103A, 103B, 103C, 124C, 124D, 124G, C124N, 124T, 125, 126, M127, 128, 130B, 130C, 140B, 140C, 140D, 150, C170, 193.

**Slavic Languages and Literatures B.A.**

**Preparation for the Major**

*Required:* Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1), Slavic 99.

**Transfer Students**

To be admitted as Slavic Languages and Literatures majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Slavic civilization course.

**The Major**

*Required:* Russian 101A, 101B, 101C, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1+); courses 118, 119, 120 (all three may be taken in the sophomore year); one three-course sequence from Czech 102A, 102B, and 102C, or 102D, 102E, and 102F, or Polish 102A, 102B, and 102C, or 102D, 102E, and 102F; or Serbian/Croatian 103A, 103B, and 103C, or 103D, 103E, and 103F (placement with consent of instructor); three courses from Czech 102D, 102E, 102F, Polish 102D, 102E, 102F, Serbian/Croatian 103D, 103E, 103F, Russian 102A, 102B, 102C, 123, 130A, 130B, 130C, 140A through 140D, 150; two courses from Czech 155, Polish 152A, 152B, Serbian/Croatian 154, Slavic 125, 126.

**Russian Studies B.A.**

**Preparation for the Major**

*Required:* Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1), 99A.

**Transfer Students**

To be admitted as Russian Studies majors, transfer students 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.

**The Major**

*Required:* Russian 101A, 101B, 101C, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1+), three courses in Russian literature, two courses from History 131A through 131D, two courses from Political Science 128A, 128B, 156A, Russian C170, and five additional courses selected from those listed above, from Russian language, literature, or linguistics courses, or from special courses (approved by the undergraduate adviser) offered by the Departments of Art, Art History, Design 1 Media Arts, Film, Television, and Digital Media, History, Music, Political Science, Slavic Languages and Literatures, and Theater.

**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 (13 units):**

Russian 6 and two courses from 25, 99A, 99B.

**Required Upper Division Courses (23 units):**

Russian 101A, 101B, 101C, and two additional upper division Russian language and literature courses.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Literature Minor**

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

**Required Lower Division Courses (10 to 15 units):**

Russian 3 or 13B or 15B and two courses from 25, 99A, 99B.

**Required Upper Division Courses (20 units):**

Five Russian language or literature courses, including at least two from Russian 118, 119, 120, 130A, 130B, 130C, 140A through 140D.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 (10 to 15 units):**

Russian 3 or 13B or 15B and two courses from 25, 99A, 99B.

**Required Upper Division Courses (20 units):**

Five courses dealing directly with Russia, to be selected from any upper division Russian language and literature courses, History 131A through 131D, Political Science 128A, 128B, 156A, Russian C170. With approval of the undergraduate adviser, other related courses may be applied toward the minor.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu.
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 Languages and Literatures offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Slavic Languages and Literatures.

Bulgarian

Upper Division Courses

103A-103B-103C. Elementary Bulgarian. (5-5-5) Recitation, five hours. Basic courses in the Bulgarian language. P/NP or letter grading.

104. Survey of Bulgarian Literature. (4) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Survey of Bulgarian literature from the Middle Ages to the present.

Czech

Upper Division Courses

102A-102B-102C. Elementary Czech. (5-5-5) Recitation, five hours. Basic courses in the Czech language. P/NP or letter grading.

102D-102E-102F. Advanced Czech. (4-4-4) Recitation, three hours. Requisite: course 102C.

155. Survey of Czech Literature from Middle Ages to the Present. (4) Lecture, three hours. Lectures and readings in English. P/NP or letter grading.

Hungarian

Upper Division Courses

101A-101B-101C. Elementary Hungarian. (4-4-4) Discussion, three to four hours. Course 101A is requisite to 101B, which is requisite to 101C. Introduction to grammar; instruction in speaking, listening, reading, and writing. P/NP or letter grading.

121. Survey of Hungarian Literature in Translation. (4) (Formerly numbered 121A-121B.) Lecture, three hours. Designed for students in general and comparative literature, as well as students interested in Finno-Ugric studies. Survey of main trends and theories of the first-year Hungarian course to be covered in two terms, with extensive use of language laboratory and P/NP or letter grading.

199. Special Studies in Hungarian. (2 to 4) Tutorial, to be arranged. Arranged study course for students who desire more intensive or specialized instruction. To be arranged. Independent studies course for those who desire more intensive or specialized instruction. To be arranged.

Graduate Course

280. Seminar: Polish Literature. (4) Seminar. Three hours. Selected topics in Polish prose, poetry, and drama. May be repeated for credit with consent of instructor and graduate adviser.

Polish

Upper Division Courses

102A-102B-102C. Elementary Polish. (5-5-5) Recitation, five hours. Basic courses in the Polish language. P/NP or letter grading.

102D-102E-102F. Advanced Polish. (4-4-4) Recitation, three hours. Requisite: course 102C.

152A-152B-152C. Survey of Polish Literature. (4-4-4) Lecture, three hours. Lectures and readings in English. 152A. From the Middle Ages to Neoclassicism; 152B. Reimagining a Nation. Readings in 19th-century Polish literature and culture. 152C. Dreaming, Mocking, and Writing―‘as if.’ Readings in modern Polish literature and culture.

Graduate Course

280. Seminar: Polish Literature. (4) Seminar. Three hours. Selected topics in Polish prose, poetry, and drama. May be repeated for credit with consent of instructor and graduate adviser.

Romanian

Lower Division Course

99. Introduction to Romanian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of the Romanian people and their historical background.

Upper Division Courses


101D-101E-101F. Advanced Romanian. (5-5-5) Recitation, five hours. Requisite: course 101C. Course 101D is requisite to 101E, which is requisite to 101F. Differences between oral and written discourse, expansion of students’ general and academic vocabulary, and increase of range of grammatical structures for use in speaking and writing. Cultural information to be included in readings.


152. Survey of Romanian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of Romanian literature from the Middle Ages to the present.

Graduate Course

201. Romanian as a Romance Language. (4) Lecture, three hours. Survey of structure and development of the Romanian language, with special emphasis on relationship of Romanian to other members of the Romance group.

10. Intensive Elementary Russian. (12) Intensive basic course in the Russian language equivalent to courses 1, 2, and 3.

11A-11B-12A-12B-13A-13B. Self-Paced Program in Russian. (2 each) Basic courses in the Russian language; 2 to 4 units per term recommended. Each 2-unit course in sequence requires 30 minutes of laboratory session per week and 30 minutes of discussion session per week, plus individual instruction as required by the staff. Courses 11B and higher require completion of or simultaneous enrollment in all courses lower in sequence. 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.

16. Preintermediate Russian. (2) Enforced requisite: course 3 or 13B or 15B. Designed for students who have completed first year of Russian (course 3 or 13B or 15B) but cannot take course 4 immediately. Conversation, reading, and composition. P/NP or letter grading.


100A-100B. Literacy in Russian. (4-4) Discussion, three hours. For students who speak Russian but have difficulty reading and writing. Each course may be taken independently for credit with consent of instructor. P/NP or letter grading.


102A. The Family in Contemporary Russia. (Formerly numbered 102B.) 102B. The Individual and the State. (Formerly numbered 102A.)

102C. Growing Up in Russia. 102D. Emphasis on Social Science.

103A-103B-103C. Russian for Native and Near-Native Speakers. (4-4-4) Discussion, three hours. Improvement of oral and written language skills, emphasizing correct and diversified use of language and addressing individual grammatical difficulties. Courses may be taken independently for credit and may be repeated for credit with topic and/or instructor change. P/NP or letter grading.

103A. Russian National Identity. Readings in literature, philosophy, criticism, film, 103B. Literature and Film. Film adaptations of Russian literature. Readings and screenings. 103C. Special Topics.


107. Russian for Social Scientists. (2) Preparation: three years of Russian. Reading of texts relevant to social scientists; viewing of Russian TV. May be repeated for credit.


125D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. Selections from early short fiction and philosophical writings followed by in-depth readings of one or two major novels such as Crime and Punishment or The Brothers Karamazov. P/NP or letter grading.

124G. Studies in Russian Literature: Gogol. (4) Lecture, three hours. Lectures and readings in English. Short stories, novel Dead Souls, and selected plays; P/NP or letter grading.

121N. Russian Civilization in the 20th Century. (4) Lecture, three hours; discussion, one hour. Examination of Russian civilization and culture before and after the October Revolution. P/NP or letter grading.

124F. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, narrative poems, novel, drama, and selected letters. P/NP or letter grading.

124T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novels, excerpts from War and Peace or Anna Karenina. P/NP or letter grading.


126. Survey of Russian Drama. (4) Lecture, three hours. Lectures and readings in English. Introduction to representative selection of most important dramatic works in Russian literature, including works from neoclassical, Romantic, realist, and futurist traditions. P/NP or letter grading.

127. Women in Russian Literature. (4) (Same as Women's Studies M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to "alternative tradition" of women's writings in Russia and the Soviet Union. Emphasis on images of women expressed in this tradition as compared with Women's Writings in Contemporary Russian Male Writers. P/NP or letter grading.


130A-130B-130C. Russian Poetry. (4-4-4) Lecture, three hours; preparation: third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change.

140A-140D. Russian Prose Fiction. (4 each) Lectures, three hours. Conducted in Russian. Three-hour, third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. 140A. Introduction to Analysis of Russian Narrative Prose. Study of analysis of genre, narrative, and rhetorical strategies and interplay of literature, history, and culture. 140B. Russian Romantic Prose. Karamzin, Pushkin, Gogol, and others. 140C. Great Realists, Dostoevsky, Tolstoy, and others. 140D. 20th-Century Modernism.

150. Russian Folk Literature. (4) (Formerly numbered M150.) Lecture, three hours. Lectures and readings in Russian. P/NP or letter grading.

C170. Russian Folklore. (3 or 5) (Formerly numbered CM170.) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including study of generative and related folklore phenomena. Concurrently scheduled with course C240, P/NP or letter grading.

193. Seminar: Russian Literature. (4) Seminar three hours. Requisite: course 6. Recommended: course 101C. Reading and discussion of selected authors; written seminar papers usually required. May be repeated for credit with topic and/or instructor change.

Graduate Courses

201A-201B. Russian: Vocabulary, Pronunciation, Style. (4-4-4) Lecture, three hours. Requisites: courses 102C, 106. Conducted in Russian. Reading and analysis of texts with focus on vocabulary, pronunciation, and style, respectively, in three consecutive terms. S/U or letter grading.

Linguistics


203. Practicum in Russian. (2) Requisite: course 201C. Two terms per year required of Ph.D. students. Reading and practice in advanced composition and conversation; stylistics. May be repeated for credit. S/U grading.


241. Topics in Russian Phonology. (4) Lecture, three hours. Requisite: course 220A. Selected topics in Russian phonology. May be repeated for credit with consent of instructor.

242. Topics in Russian Morphology. (4) Lecture, three hours. Requisite: course 220A. Selected topics in Russian inflection and derivation. May be repeated for credit with consent of instructor.

243. Topics in Historical Russian Grammar. (4) Lecture, three hours. Requisites: course 204, Slavic 221. Selected topics in Russian historical phonology, morphology, and syntax. May be repeated for credit with consent of instructor.

261. Discourse Grammar of Russian. (2 or 4) Lecture, three hours. Analysis of phenomena of Contempora- rary Standard Russian controlled by discourse/pragmatic factors at all levels of linguistic structure from phonology to interstructural syntax. S/U or letter grading.


265. Topics in Russian Syntax. (4) Lecture, three hours. Requisite: course 220B. Traditional and generative approaches to Russian syntax. May be repeated for credit with consent of instructor.
Literature and Civilization

211A. Literature of Medieval Rus’. (4) Lecture, three hours. Required for M.A. (literature). Survey of the literature from its beginnings through the Kievan and Muscovite periods up to the end of the 17th century.


212B. Age of Realism. Required for M.A. (literature). Survey devoted to emergence of critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoevsy, moving to major novels of Tolstoy, Dostoevsy, and Saltykov-Shchedrin, and concluding with works of the presymbolic period, especially the short stories of Chekhov.


251. Contemporary Russian Literature. (4) Discussion, three hours. Requisite: course 213. Close readings of one text of poetry, prose, and dramatic, of recent vintage. May be repeated for credit. S/U or letter grading.


291B. Seminar: 18th-Century Russian Literature. (4) Seminar, three hours. Requisite: course 213B. Selections and readings from 18th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

292. Seminar: 19th-Century Russian Literature. (4) Seminar, three hours. Requisites: courses 212A, 212B. Selections and readings from 19th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

293. Seminar: 20th-Century Russian Literature. (4) Seminar, three hours. Requisite: course 213. Selected authors and works from 20th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

294. Seminar: Russian Literary Criticism. (4) Seminar, three hours. Requisites: courses 211B, 212A, 212B. Detailed study of specific school of literary criticism, single literary critic, or period in Russian literary history as reflected in literary criticism. Si-multaneous or similar phenomena in literary criticism in the West. May be repeated for credit with consent of instructor and graduate adviser.

296. Seminar: History of Russian Culture. (4) Discussion, three hours. Reading and discussion on selected topics in history of Russian culture.

297. Critical Reading. Required for M.A. (literature). Survey devoted to emergence of critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoevsy, moving to major novels of Tolstoy, Dostoevsy, and Saltykov-Shchedrin, and concluding with works of the presymbolic period, especially the short stories of Chekhov.


299. Seminar: Russian Literary Criticism. (4) Seminar, three hours. Requisite: course 213. Selected authors and works from 20th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

211. Slavic Gender Linguistics. (2 or 4) Lecture, three hours. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminology and concepts; survey of languages and translation systems; acquisition of Slavic and East European literary materials; Slavic and East European scholarly societies in the West; relevant reference sources, archival resources, and research methods; survey of online databases; compilation of bibliographic material. S/U or letter grading.

201. Introduction to Old Church Slavonic. (4) Lecture, three hours. Required for M.A. (linguistics, literature). Introduction to phonology and grammar; readings.


211. Slavic Gender Linguistics. (2 or 4) Lecture, three hours. Examination of linguistic differences between male and female speech and of language used to refer to females and males. Course contributes to understanding of language, literature, sociolinguistics, gender issues, and Slavic culture in general. S/U or letter grading.


229. Introduction to Slavic Bibliography. (2) (Same as Information Studies M229C.) Introduction to Bibliography and bibliographic tools. Emphasis on historical and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminology and concepts; survey of languages and translation systems; acquisition of Slavic and East European literary materials; Slavic and East European scholarly societies in the West; relevant reference sources, archival resources, and research methods; survey of online databases; compilation of bibliographic material. S/U or letter grading.


281. Seminar: Slavic Linguistics. (4) Seminar, three hours. Selected topics in comparative and historical Slavic linguistics. May be repeated for credit with consent of instructor and graduate adviser.

282. Seminar: Structural Analysis. (4) Seminar, three hours. Selected topics. May be repeated for credit with consent of instructor and graduate adviser.

Graduate Courses

Linguistics

200A. Literary Proseminar. (2) Formerly number-200B.) Seminar, 90 minutes. Designed to prepare incoming graduate students for scholarly work by introducing them to resources (departmental, intramural, and extramural), methodologies, and techniques for analysis of literary materials and cultural studies. S/U grading.

201. Introduction to Old Church Slavonic. (4) Lecture, three hours. Required for M.A. (linguistics, literature). Introduction to phonology and grammar; readings.


211. Slavic Gender Linguistics. (2 or 4) Lecture, three hours. Examination of linguistic differences between male and female speech and of language used to refer to females and males. Course contributes to understanding of language, literature, sociolinguistics, gender issues, and Slavic culture in general. S/U or letter grading.


281. Seminar: Slavic Linguistics. (4) Seminar, three hours. Selected topics in comparative and historical Slavic linguistics. May be repeated for credit with consent of instructor and graduate adviser.

282. Seminar: Structural Analysis. (4) Seminar, three hours. Selected topics. May be repeated for credit with consent of instructor and graduate adviser.
Literature
230A-230B-230C. Topics in Comparative Slavic Literature. (4-4-4) Lecture, three hours. Recommended preparation: upper division courses in Czech, Polish, Russian, and Yugoslav literatures. Two terms required for Ph.D. (Literature). May be repeated for credit with consent of instructor and graduate advisor. 230A. Middle Ages through Baroque; 230B. Classicism to Romanticism; 230C. Realism to Modernism.

Special Studies
M299. Research Resources for European Studies. (3) Same as French M299, German M299, Information Studies M299, Italian M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. S/U grading.

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

495. Teaching Slavic Languages at College Level. (4) Seminar, 90 minutes; discussion, 90 minutes. Designed for graduate students. Theory and practice of language teaching. Discussion of contemporary language teaching methodology as well as problems of pedagogical grammar. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Ukrainian
Upper Division Courses

152. Ukrainian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of writers, literary trends, and issues in Ukrainian literature from the late 18th century to the present. Special attention to works of such major figures as Kotlyarevsky, Shvechenko, Franko, Ukrainka, and Tykyna.

Related Courses
Ethnomusicology
91C. Music and Dance of the Balkans

128. Folk Music of Eastern Europe

History
131A-131D. History of Russia

200D. Advanced Historiography: Europe

233A-233B. Seminars: Russian/Soviet History

Linguistics
20. Introduction to Linguistics

103. Introduction to General Phonetics

110. Introduction to Historical Linguistics

120A. Phonology I

120B. Syntax I

M150. Introduction to Indo-European Linguistics

Political Science
128A. U.S./Soviet Relations

128B. International Relations of Post-Communist Russia

156A. Government and Politics of Post-Communist States: Russia

156B. Government and Politics of Post-Communist States: Eastern Europe

SOCIAL WELFARE
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A.E. Benjamin, Ph.D., Chair and Director, M.S.W. Program
Allee Moon, Ph.D., Chair, Doctoral Program
Joseph A. Nunn, Ph.D., Vice Chair, Agency and Community Relations

Professors
Helmut K. Anheier, Ph.D.
Rosina M. Becerra, Ph.D.
A.E. Benjamin, Ph.D.
Yeheskel Hasenfeld, Ph.D.
Stuart A. Kirk, D.S.W. (Majorie Crump Professor of Social Welfare)
Duncan Lindsay, Ph.D.
James E. Lubben, D.S.W.
Barbara J. Nelson, Ph.D., Dean
Paul Ong, Ph.D.
Robert F. Schilling, Ph.D.
Fernando M. Torres-Gil, Ph.D.

Professors Emeriti
Jerome Cohen, Ph.D.
Jeanne M. Giovannoni, Ph.D.
Doris S. Jacobson, Ph.D.
Alfred H. Katz, D.S.W.
Alex J. Norman, D.S.W.
Jack Rothman, Ph.D.
Leonard Schneiderman, Ph.D.
Harry Wasserman, D.S.W.
Rachelle A. Zukerman, Ph.D.

Associate Professors
Diane de Anda, Ph.D.
Todd M. Franke, Ph.D.
Alfreda P. Iglehart, Ph.D.
Allee Moon, Ph.D.

Adjunct Associate Professor
JoAnn Damron-Rodriguez, Ph.D.

Adjunct Assistant Professors
James McGuire, Ph.D.
Joy J. Prover, Ph.D.

Fieldwork Consultants
Laura Alongi
Pamela Davis, L.C.S.W.
Lartha R. Dunham, M.S.W.
Colleen Friend, L.C.S.W.
Katherine M. Kolodziejcki, Ph.D., Emerita
Jane E. Kurthara, M.S.W., Emerita
Gerardo P. Lavitza, L.C.S.W.
Karen Lee
Joseph A. Nunn, Ph.D.
Mary Kay Olveri, L.C.S.W.
Winfred E. Smith, M.S.W., Emerita
Lianne Urbina
Mary Brent Wehrl, M.S.W.

Scope and Objectives
The primary objectives of the Department of Social Welfare graduate program are to prepare leaders for the profession of social work and to develop the empirical base for all facets of practice. In response to changing demographic trends and the emergence of new social problems, the department provides leadership in the areas of policy, practice, and research and in the development of an innovative curriculum for training students and professionals to meet the service needs of a multicultural clientele.

The educational program is based on the premise that all students need to acquire a common body of knowledge and basic skills, and a common understanding of the philosophy and values of the profession. These then form a sound foundation for the development of more specialized knowledge and skills along the lines of each student’s interests and the needs of the field.

Students are encouraged to take advantage of the resources within the University by selecting elective courses in related disciplines. In addition, as a department within the School of Public Policy and Social Research, the program affords students instructional opportunities in the other affiliated departments — Policy Studies 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 for the paths, build the bridges, and shape the future to ensure that all individuals, families, and communities enjoy better education, better health care, better job training, and better economic futures.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
and Social Welfare M.S.W./Public Policy M.P.P) are also offered.

Social Welfare

Lower Division Course

98D. Negotiating Conflict in Our Diverse Culture. (4) Seminar, three hours. Enforced prerequisite: satisfaction of Subject A requirement. Exploration of art and science of negotiations in addressing campus and community conflicts, with focus on analysis of positions and interests of the disputants, understanding cultural and political context of the dispute, and developing tactics and skills to effectively, realistically, and cooperatively address and learn from the conflict. P/NP or letter grading.

Upper Division Courses

100A. Introduction to Social Welfare: Policies and Programs. (4) Origin and development of major U.S. social welfare policies guiding them, with emphasis on policy development issues in social welfare services. Study of historical and current responses of the profession to major social problems.

100B. Social Welfare Policy: Overview. (4) Requires: course 100A. Review of existing policy regarding major social issues in the 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.

101. Social Welfare in a Multicultural Society. (4) 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.

102. Social Welfare Organizations and Community Systems. (4) Recommended prerequisites: courses 100A, 100B. Detailed demonstration of implementation of policy via the functioning of human service organizations. Examination of organizational structures and functions. Exploration of characteristics and organization of the community and forces that influence its development and change.

103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Requires: courses 100A, 100B, 101. Description and demonstration of basic skills employed in direct social work practice via the casework process. Students practice these skills in written, role-play, small group, and video or audio exercises. P/NP or letter grading.

104A. Filipino American Community and Family. (4) Examination of interaction of Filipino American families and communities within the larger social and political environment to understand importance of social, cultural, and political influences of Filipino American families and communities. P/NP or letter grading.

104B. Japanese American Redress. (4) Examination of process through which Civil Liberties Act of 1988 was created, pursued, and passed. This act was the official apology from the U.S. government to over 198,000 Japanese Americans incarcerated in concentration camps during World War II. P/NP or letter grading.

104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) Same as Gerontology M104C and Women's Studies M104C. Lecture, four hours. Exploration of complexity of variables related to diversity of the aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in a multidisciplinary perspective utilizing faculty from a variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) Same as Gerontology M104D. Examination of theoretical models and concepts of the policy process, with application to aging demographic issues and policy processes that affect aging policy. Description of history of contemporary aging policy. Examination of current policy issues affecting the elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) Same as Gerontology M104E. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around a key aspect of social gerontology. P/NP or letter grading.

104F. Japanese American Community and Family. (4) Examination of interaction of Japanese American families and communities within the larger social and political environment to understand importance of social, cultural, and political influences of Japanese American families and communities. 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 old age. Programs developed by governments to ameliorate these problems have typically been public insurance programs or cash 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.

106. Research Seminar and Field Observation: Social Welfare. (4) Seminar, three hours; discussion, one hour; outside study, eight hours. Didactic component with focus on development of basic skills in the areas of research. Students select one field of observation experience (module) from a number of field settings, P/NP or letter grading.

107. Field Practicum: Social Welfare. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requires: course 106. In field practicum students are placed in a specific agency where they combine observation of agency functions with participation in specific agency tasks and roles under instructional supervision of an agency mentor and a UCLA faculty member. P/NP or letter grading.

108. Violence against Women. (4) Same as Women's Studies M108. Seminar, three hours. Requires: Women's Studies 10, 110A. Factural information and theoretical analyses regarding various forms of violence against women and girls in their homes, workplaces, and communities. Students to learn through critical examination of social structures and science research, Letter grading.

M140. Introduction to Study of Aging. (4) Same as Gerontology M140 and Psychology M140. Lecture, three hours. Designed for juniors/seniors. Pertains to major social problems. 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. Designed for juniors/seniors. Intensive interdisciplinary study of child physical and sexual abuse and neglect, with lectures by faculty members of the Schools of Dentistry, Law, Medicine, Nursing, and the Departments of Education and Psychology, as well as by the relevant public agencies. Letter grading.

205. Cross-Cultural Awareness. (4) Lecture, two hours; discussion, two hours. Designed to aid students in development of cultural perspectives that will allow them to work effectively with members of myriad cultural groups, to discuss with clarity alternative concepts of culture in determination of individual behavior responses, and to identify their own personal cultural values and assumptions. S/U or letter grading.

M206A. Homelessness: Housing and Social Service Issues. (4) Same as Urban Planning M207A. Lecture, three hours; field work, 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 the homeless. Letter grading.

220. History and Philosophy of Social Welfare. (4) History of social welfare as knowledge and appreciation of the method and process, and point of view analyzed within context of economic, political, social, philosophical, and scientific climate of the period.

M221A. Foundations of Social Welfare Policy. (4) Same as Policy Studies M221A. Lecture, three hours. Nature, roles, and history of welfare institutions in different societies; applicable social system theory of different components of the welfare system; theories and research about welfare policies and organizational forms. S/U or letter grading.
M241E. Leadership, Development, and Governance of Nonprofit Organizations. (4) Same as Policy Studies M228B and Urban Planning M288B. Lecture, three hours outside study; nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

M241F. Strategic Planning for Public and Nonprofit Organizations. (4) Same as Policy Studies M247 and Urban Planning M290.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical issues of problem solving regarding substantive social welfare problems at community level. This form of community practice fills niche between the 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.

M245A. Development of Social Work Practice Theory. (4-4) Discussion, three hours. Designed for Ph.D. students. Examination of principal issues in development, formulation, and adoption of U.S. social welfare policies, with particular focus on income distribution and redistribution. Emphasis on analysis of social policy issues and conceptual frameworks for analysis. S/U or letter grading.

M245B. Implementation and Evaluation. (4) Discussion, three hours. Designed for Ph.D. students. Examination of issues in implementation and evaluation of social welfare policies, particularly those pertaining to provision, organization, and delivery of social services, including stratification, distribution, criteria for effectiveness, and use of quantitative methods in policy analysis. S/U or letter grading.

M230A-230B-230C. Theory of Social Welfare Practice with Individuals, Families, and Groups I, II, III. (2-2-2) Lecture, two hours; outside study, nine hours. Corequisite: required social work practicum. Introduction to theory of social work with individuals and small groups and to principles of practice which are derivative of this and related theory. S/U or letter grading.

M231A-231B-231C. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups I, II, III. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Advanced level, critical analysis of theoretical, concepts, and principles underlying social casework practice. Specific attention to deviation and stress as conditions affecting functioning of individuals and groups, and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

M240A-240B. Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings IV, V, VI. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisites: required social work practicum. Historical and theoretical developments in administration, planning, and community organization; understanding the community as a social system; administration of organizations; role of the practitioner in identification, analysis, and evaluation of needs, existing programs, policies, structures, and strategies of intervention. Letter grading.

M241A-241B-241C. Advanced Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings IV, V, VI. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisites: required social work practicum. Emphasis on various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. S/U or letter grading.

M241D. Social Advocacy and Domestic Violence. (4) (Same as Law M286.) Lecture, three hours; fieldwork. Use of domestic violence as a case study to give students skills needed to advocate for individuals or issues. How systems work, how law legitimizes systems, and how advocacy can be used to change the systems.

M241E. Leadership, Development, and Governance of Nonprofit Organizations. (4) Same as Policy Studies M228B and Urban Planning M288B. Lecture, three hours outside study; nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

M241F. Strategic Planning for Public and Nonprofit Organizations. (4) Same as Policy Studies M247 and Urban Planning M290.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical issues of problem solving regarding substantive social welfare problems at community level. This form of community practice fills niche between the 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.

M245A. Development of Social Work Practice Theory. (4-4) Discussion, three hours. Designed for Ph.D. students. Examination of principal issues in development, formulation, and adoption of U.S. social welfare policies, with particular focus on income distribution and redistribution. Emphasis on analysis of social policy issues and conceptual frameworks for analysis. S/U or letter grading.

M245B. Implementation and Evaluation. (4) Discussion, three hours. Designed for Ph.D. students. Examination of issues in implementation and evaluation of social welfare policies, particularly those pertaining to provision, organization, and delivery of social services, including stratification, distribution, criteria for effectiveness, and use of quantitative methods in policy analysis. S/U or letter grading.

M230A-230B-230C. Theory of Social Welfare Practice with Individuals, Families, and Groups I, II, III. (2-2-2) Lecture, two hours; outside study, nine hours. Corequisite: required social work practicum. Introduction to theory of social work with individuals and small groups and to principles of practice which are derivative of this and related theory. S/U or letter grading.

M231A-231B-231C. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups I, II, III. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Advanced level, critical analysis of theoretical, concepts, and principles underlying social casework practice. Specific attention to deviation and stress as conditions affecting functioning of individuals and groups, and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

M240A-240B. Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings IV, V, VI. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisites: required social work practicum. Historical and theoretical developments in administration, planning, and community organization; understanding the community as a social system; administration of organizations; role of the practitioner in identification, analysis, and evaluation of needs, existing programs, policies, structures, and strategies of intervention. Letter grading.

M241A-241B-241C. Advanced Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings IV, V, VI. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisites: required social work practicum. Emphasis on various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. S/U or letter grading.

M241D. Social Advocacy and Domestic Violence. (4) (Same as Law M286.) Lecture, three hours; fieldwork. Use of domestic violence as a case study to give students skills needed to advocate for individuals or issues. How systems work, how law legitimizes systems, and how advocacy can be used to change the systems.
M290L. Children with Special Health Care Needs: Systems Perspective. (4) (Same as Community Health Sciences M220.) Lecture, three hours; field work, one hour. Examination and evaluation of principles, policies, programs, and practices which 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.

M290J. Child Welfare Policy. (4) (Same as Policy Studies M212.) Lecture, three hours. Development of social policy as it affects families and children from different cultural backgrounds and as it is given form in public child welfare system. Examination of development of an infrastructure to support needs of children and families. S/U or letter grading.

M290K. Mental Health Policy. (4) (Same as Policy Studies M213.) Lecture, three hours. Examination of evolution of social policy and services for the mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of the mentally ill and services they are provided. S/U or letter grading.

M290L. Poverty, the Poor, and Welfare Reform. (4) (Same as Policy Studies M214 and Urban Planning M246L.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward the poor in the U.S. S/U or letter grading.

M290M. Health Policy. (4) (Same as Policy Studies M215.) Lecture, three hours. Introduction to contemporary issues in health care financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and costs. S/U or letter grading.

M290N. Public Policy for Children and Youth. (4) (Same as Policy Studies M216.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and the community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M290P. Aging Policy, Elderly and Families. (4) (Same as Policy Studies M211.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination 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.


M290S. Nonprofit Sector, State and Civil Society. (4) (Same as Policy Studies M227 and Urban Planning M227.) Lecture, three hours; outside study, nine hours. Designed for graduate students. 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 the U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between the U.S. and other countries. Letter grading.

290T. Social Work and Juvenile Justice System. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Exploration of evolution of juvenile justice system in the 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 Policy Studies M243 and Urban Planning M226.) 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 the 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 Policy Studies M226 and Urban Planning M226.) 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 to finance to crisis management to market, that nonprofit managers typically face. Letter grading.

401A-401B-401C. Practicum: Social Work. (3-3-3) Laboratory, 20 hours. Educationally directed practicum conducted in selected health, welfare, and educational facilities. Provides opportunities for students to test their theoretical knowledge and to acquire a disciplined practice foundation in the profession. In Progress and S/U grading.


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

596A. Special Study and Research in Social Welfare. (2 to 8) Tutorial, to be arranged. Individual programming for selected students to permit pursuit of a subject in greater depth. S/U or letter grading.

596B. Special Study and Research for Ph.D. Candidates. (2 to 12) Tutorial, to be arranged. Limited to Ph.D. students. S/U grading.

597A. Preparation for M.S.W. Comprehensive Examination. (2 to 8) Tutorial, to be arranged. S/U grading.

597B. Preparation for Ph.D. Qualifying Examination. (2 to 12) Tutorial, to be arranged. Limited to Ph.D. students. S/U grading.

The Ph.D. 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 B.A.

Preparation for the Major

Required: Sociology 1; one course from Mathematics 2, 3A, 31A; Sociology M18 (or Statistics 10, 11, or Psychology 100A).

All courses required for the major in Sociology, including lower division and allied field courses, must be taken for a letter grade. A 2.0 grade-point average is required for the preparation and for the major.

Transfer Students

To be admitted as Sociology majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introduction to sociology course, one finite mathematics or calculus course, and one statistics course.

The Major

Required: Ten upper division sociology courses (42 units), including Sociology 101, 102, and one course from 104, 104H, 106A, 113. These courses, devoted to the systematic exploration of sociological methods and theories, should be completed as early as possible and before taking other upper division courses. Students must also take seven additional upper division sociology courses.

To complete the major, four upper division allied field courses (16 units) in other departments are required (the allied fields are anthropology, communication studies, economics, geography, history, political science, and psychology), as is one course from English Composition 100W, 110, 129A through 129D, 131A through 131D (may be taken on a P/NP grading basis).

Only 8 units of Sociology 199 are allowed. At least six of the sociology courses must be taken while in residence in the College of Letters and Science at UCLA.

Honors Program

The honors program in sociology provides opportunity for outstanding students to undertake an independent year-long research project under the guidance of a faculty member.

As preparation for the honors major, students must complete Mathematics 2, 3A, or 31A, and an honors section of Sociology 1 and M18.

Prior to taking other upper division sociology courses, students must complete an honors section of Sociology 101 and 102.

Also required are three undergraduate seminars from the Sociology 197 series; any two additional upper division sociology courses; courses 104H, 199HA, 199HB, 199HC (honors thesis seminars); four upper division allied field courses (16 units) in other departments (the allied fields are anthropology, communication studies, economics, geography, history, political science, and psychology); and one course from English Composition 100W, 110, 129A through 129D, 131A through 131D (may be taken on a P/NP grading basis).

Students must have a 3.5 overall grade-point average, have completed the sociology preparation requirements and, in most cases, have completed the required theory course. Applications are available from the Undergraduate Counselor’s Office, 254E Haines Hall. Students should apply in the last term of their junior year.

Computing Specialization

 Majors in Sociology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10A, 10B, 10C, and (3) completing Sociology C112, 113. Students graduate with a bachelor’s degree in sociology and a specialization in Computing.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnr.ucla.edu. 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 (M.A.) and Doctor of Philosophy (Ph.D.) 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. (Same as Afro-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.

M18. Introduction to Statistical Methods for Social Sciences. (5) Same as Anthropology M80, Geography M40, and Statistics M12.) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open to credit for students with credit for Statistics 10, 11, or 13 (or former Economics M40, Organismic Biology M22, Statistics M11, or M13). Elements of statistical analysis for social sciences. Presentation and interpretation of data, descriptive statistics, theory of probability and basic sampling distributions, statistical inference including principles of estimation and tests of hypotheses, introduction to regression and correlation. P/NP or letter grading.
Upper Division Courses

101. Development of Sociological Theory. (5) Lecture, three hours; discussion, one hour. Comparative survey of basic concepts and theories in sociology from 1850 to 1920. P/NP or letter grading.

102. Contemporary Sociological Theory. (5) Lecture, three hours; discussion, one hour. Required: course 101. Critical examination of significant theoretical formulations from 1920 to the present. P/NP or letter grading.

104. Introduction to Sociological Research Methods. (5) Lecture, three hours; discussion, one hour. Not open to students with credit for course 104H. Introduction to research design and statistical reasoning for students who intend to write an undergraduate honors thesis. Letter grading.

106A. Field Research Methods I. (6) (Formerly numbered 106.) Lecture, two hours; discussion, two hours; fieldwork, eight to 10 hours. Research practice in which students write field notes on their experiences in and observations of intensive internship field placement. Readings focus on fieldwork roles and relationships, 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. 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 papers. Letter grading.

110. Sociological Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seminors. General problems of scientific abstraction, generalization, inference, and verification and particular problems of historical specification, comparison, and counterfactual reasoning in constructing and testing a replicable explanation of an historical event. P/NP or letter grading.

114A-114B. Introduction to Scientific Sociology. (4-4) Lecture, three hours; discussion, one hour. How to make testable arguments about social reality and how to test those arguments in the context of sociological methodology. P/NP or letter grading.

115. Environmental Sociology. (4) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations between social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.


117. Family Demography. (4) Lecture, two hours; discussion, one hour. Examination of demographic behaviors, such as marriage, divorce, and childbearing, associated with family and household organization. Sociological approach to understanding causes and consequences of family formation and dissolution. P/NP or letter grading.

118. Simulating Society: Exploring Artificial Communities. (5) (Formerly numbered 119B.) (Same as Honors M141A; same as Sociology M133.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/NP or letter grading. CM124A-CM124B. Conversational Structures I, II. (4-4) (Same as Studies M114A-M114B.) Lecture, three hours; discussion, one hour. May be concurrently scheduled with courses C244A-C244B, P/NP or letter grading. CM121A. Introduction to some structures which are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structures with limited expansions. CM124B. Requisite: course CM124A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

125. Talk and Social Institutions. (4) (Same as Communication Studies M125.) Lecture, four hours; discussion, one hour. Designed for juniors/seminors. Practices of communication and social interaction in a number of major institutional sites in contemporary society, including educational institutions, emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course C258. P/NP or letter grading.

126. Study of Norms. (4) Properties of norms, of normatively governed conduct, of law and professional methods for describing, producing, using, and validating norms in contrasting settings of socially organized activities; relevance of these properties for programmatic problems of analytic sociology. Fieldwork required.

127. Mind and Society. (4) Lecture, two and one-half hours; discussion, one hour. Requisite: course 1. Study of social processes and the production of social knowledge. Study of individual in context of social organization. P/NP or letter grading.

128. Sociology of Emotions. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seminors. Sociological theories and explanations of social conditions shaping and producing emotions. Emphasis on individual expression of emotions on social conditions; relations between thought, sensations, and the emotions; the self and emotions; social construction of emotions.

129. Sociology of Time. (4) Lecture, three hours; discussion, one hour. Conceptualizations of time seen from scientific, philosophical, historical, and sociological perspectives. "Time" in primitive, ancient, and medieval societies; ritual, the sacred, and experience of the eternal; structuring of urban, modern, and postmodern societies by clock, calendar, and schedule; future value orientation and notion of progress; time, labor, and social domination.

130. Self and Society. (4) Lecture, three hours; discussion, one hour. Examination of social processes shaping self-experience, definitions of self and personal identity. P/NP or letter grading.

132. Social Psychology: Sociological Approaches. (4) Survey of contribution of sociologists to theory and research in social psychology, including theories of social control; conformity and deviation; reference groups; and interaction process.

133. Collective Behavior. (4) Requisites: courses 1, M18. Designed for juniors/seminors. Theories of social movements, of protest activities, of collective behavior in groups and in society, of group behavior, and the role of social movements and their function in society.

135. Group Processes. (4) Systematic study of group processes in the search for meaning and the construction of social reality. Focus on group processes as they exist in the context of social institutions.

136. Process and Socialization in the Family. (4) Requisites: courses 1, M18. Designed for juniors/seminors. Examination of processes of socialization, decision-making processes, decision-making processes, and processes of socialization in family, friendship, and community. Focus on socialization processes in families and other social institutions.

138. Death, Suicide, and Trauma. (4) (Same as Psychology M163.) Lecture, three hours; discussion, one hour. Designed for seniors. Definition and taxonomy of death; new permissiveness and taboos related to death; romanticization of death; role of the individual in his own demise; modes of death; development of ideas of death through life span; ways in which ideas of death influence conduct of lives; impact of dying on social structure surrounding the individual; preventive, interventive, and postventive practices in relation to death and suicide; developmental perspective on witnessing traumatic death, including posttraumatic stress disorder; partial death; me-gadeath; lethality; psychological autopsy; death of institutions and cultures. P/NP grading recommended (letter grading required if course to be applied toward Psychology or Sociology major).

142. Health Care in Transitional Communities. (4) (Same as Public Health M151.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, and political processes affecting organization and accessibility of health care in transitional and disadvantaged communities. Fieldwork required. Letter grading.


145. Sociology of Deviant Behavior. (4) Examination of leading sociological approaches to study of deviant and general survey of major types of deviant behavior in American society.

C146. Sociology of Interpersonal Conflict. (4) Lecture, three hours; discussion, one hour. Origins, development, and outcomes of interpersonal conflicts and conflicts that arise in close relationships, households, workplaces, and public places in contemporary societies. Concurrently scheduled with course C229A. 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 deviance.

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.


C149. People Processing Institutions. (4) Discussion, three hours. Theory and research analyzing operation and decision-making processes of a variety of people processing institutions, including police, courts, schools, psychiatry, human service agencies, and medicine. Concurrently scheduled with course C229B. Letter grading.

M150. Sociology of Aging. (4) Same as Gerontology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, experience, and response to aging in contemporary society. Topics include characterization of aging, gender in aging over life course; interpersonal relations and social worlds of the aged; caregiving relations and institutions; professions concerned with the aged and aging.

151. Comparative Immigration. (4) Lecture, three hours; discussion, one hour. Survey of immigration of Europeans, Asians, and Hispanics to the U.S. since the mid-19th century. Overview of immigration experience on ethno-racial groups that migrated voluntarily to this country, with emphasis on immediate postimmigration settlement. P/NP or letter grading.

152. Comparative Acculturation and Assimilation. (4) Lecture, three hours; discussion, one hour. Requisite: course 151.) Lecture, three hours. Examining processes of acculturation and assimilation of Europeans, Africans, Mexicans, and Asians in the U.S., with emphasis on long-term cultural consequences of immigration. P/NP or letter grading.

M153. Chinese Immigration. (4) Same as Asian American Studies M153.) Lecture, two hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organization, and institutions of Chinese America and its interactions with the 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.

M155. Latin America in the U.S. (4) Same as Chicana and Chicano Studies 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 their location in the larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Ethnic and Status Groups. (4) Characteristics of “visible” ethnic groups (e.g., Japanese, Mexican, and black); their organization, acculturation, and differentiation. Development, operation, and effects of selective immigration and population mobility. Status and functions of chief minorities in continental U.S., with comparisons and analyses of chief minorities in continental U.S., with comparable minorities from Jamaica, Hawaii, and other areas.

157. Social Stratification. (4) Analysis of American social structure in terms of evaluational differentiation. Topics include differentiation, bases for evaluation, types of stratification, composition of strata and status systems, mobility, consequences of stratification, and problems of methodology.

158. Urban Sociology. (4) Lecture, three hours. Description and analysis of urbanization and urbanism in the U.S. and the world.

159. Comparative Studies of Jewish Communities in the U.S. and Abroad. (4) Lecture, three hours; discussion, one hour. History, distribution, structure, and characteristics of Jewish communities, with particular emphasis on North America and Israel. Interrelationships of sources of conflict between Jews and Gentiles in Western countries. More generally, economic and social integration of Diaspora Jewish communities. Fieldwork may be required. P/NP or letter grading.

160. Intergroup Conflict and Prejudice. (4) Study of causes and consequences of group conflict, with emphasis on majority/minority relations, prejudice, and discrimination. Special attention to alternative sociological and psychological theories of prejudice, effects of minority status on the individual, and possibilities for attitude and behavior change.


M162. Sociology of Gender. (4) Same as Women’s Studies M162.) Lecture, three hours. Requisite: course 1 or Women’s Studies 10. Examination of processes by which gender is socially constructed. Topics include discrimination between biological sex and sociocultural 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 Women’s Studies M163.) Lecture, three hours. Requisite: course 1 or Women’s Studies 10. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) Same as Women’s 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.

M166. Women in Socialist and Post-Socialist States. (4) Same as Women’s Studies M166.) Lecture, three hours; discussion, one hour. Exploration of diverse aspects of women’s lives in socialist and post-socialist states. Although transition from socialism occurs differently, gender differences are everywhere central to understanding democratization and marketization. Discussion of ways in which state policies affect women. Letter grading.

M167. Contested Sexualities. (4) Same as Lesbian, Gay, Bisexual, and Transgender Studies M167 and Women’s Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

168. Organizations and Society. (4) Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and research on behavior of organizations in society.

169. Law and Society. (4) Specific topics may include law in preindustrial and industrialized societies, legalization of contemporary social relations, participants’ experiences of legal processes, legal perceptions of justice, social movements toward equal justice, roles of lawyers and judges, social impact of court decisions.

170. Medical Sociology. (4) Requisite: course 1. Provides majors in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of path-seeking behavior and interpersonal and organizational relations that are involved in receipt and delivery of health services.

171. Occupations and Professions. (4) Descriptive analysis of roles and organizations, with special reference to historical origins, ideology, international comparisons, women and ethnic minority participation, legal and illegal forms, public and private auspices.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. 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.

173. Economy and Society. (4) Sociology of economic life, with emphasis on principal economic institutions of the U.S.

M174. Sociology of the Family. (4) Same as Women’s Studies M174.) Lecture, four hours. Theory and research dealing with the modern family, its structure, and functions, including historical changes, variant family patterns, family as an institution, and influence of contemporary society on the family. P/NP or letter grading.

M175. Sociology of Education. (Same as Education M175.) Requisite: course 1. Study of social processes and interaction patterns in educational organizations; relationship of such organizations to aspects of society, social class, and power; social relations to school, college, and university; formal and informal groups, subcultures in educational systems; roles of teachers, students, and administrators. Fieldwork may be required.

M176. Sociology of Mass Communication. (4) (Same as Communication Studies M147.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.

180. Political Sociology. (4) Contributions of sociology to study of politics, including analysis of political aspects of social systems, social context of action, and social bases of power.


185. American Society. (4) Analysis of major institutions in the U.S. in historical and international perspective, with emphasis on topics such as industrialization, work, the state, politics, community, the family, religion, and American culture. Theories of social change, conflict, and order applied to the case of the U.S.

186. Latin American Societies. (4) Descriptive survey of major Latin American societies, emphasizing their historical backgrounds and their emergent characteristics, with special attention to relations between rural and urban life.


188. Comparative East Asian Societies before World War II. (4) Lecture, two hours; discussion, one hour. Designed for juniors/seniors. Introductory and comparative survey of traditional societies of East Asia, including China, Japan, Korea, and Vietnam, with focus on dynamic interactions between culture, state, and society in process of change.
198. Japanese Society. (4) Lecture, two and one-half hours; discussion, two hours. Requisite: course 1.
Analysis of theoretical and methodological characteristics and functioning of contemporary Japanese society, with focus on (1) forms of social interaction and social structure, (2) work, family, and the life course, and (3) education and opportunity. Emphasis on structural perspectives.

199A. Comparative and Historical Methods. (4-4) Lecture, three hours; discussion, one hour. Examination of sociology and politics in 20th-century Korea from a comparative/historical perspective; Korean case used to discuss major sociological and theoretical issues in social change and development (political and economic), P/NP or letter grading.

199B. Special Topics in Sociology. (4) Lecture, four hours. Restricted to seniors. Topics selected by department faculty members. P/NP or letter grading.

199C. Independent Studies for Internships. (2 to 8) Independent study course to be supervised jointly by Center for Experiential Education and Service Learning and faculty advisor. Normally only 4 units of internship are allowed. P/NP grading.

Graduate Courses

201A-201B. Proseminars: Sociology. (2-2-2) Seminar, two hours each other week. Junior/senior graduate social science students. Introduction to theoretical and research interests represented by department faculty members. S/U grading.

202A-202B. Theory and Research in Sociology. (4-4) Lecture, two hours; discussion, two hours. Required of first-year graduate social science students. Introduction to theoretical and research interests represented by department faculty members. S/U grading.

203A. Social Survey Practicum. (4) Lecture, one hour; discussion, one hour; laboratory, two hours. Designed for graduate students. Training in basic techniques of survey research.

203B. Social Survey Research Seminar. (4) Seminar, one hour; discussion, one hour; laboratory, two hours. Designed for graduate students. Development of individual survey research projects under faculty supervision.

204. Topics in Sociological Theorizing. (4) Seminar, four hours. Examination of selected issues and 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 household organization, with major focus on relations among economic institutions, family structure, and household organization, with major focus on relations among economic institutions, family structure, and household organization.


207A-210B. Intermediate Statistical Methods I, II. (4-4) Lecture, three hours; discussion, two hours. Requisite: course M18B. Intermediate statistical methods using computers: probability theory, sampling distributions, hypothesis testing, interval estimation, multiple regression and correlation, experimental design, analysis of variance and covariance, contingency tables, sampling theory, S/U or letter grading.

210C. Intermediate Statistical Methods III. (4) Lecture, four hours. Requisite: course 210B. Survey of advanced statistical methods used in social research, with focus on problems related to classical linear regression model 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) In Progress grading. 211A. Strategies of Research and Conceptualization. Topics include research design and theory to social sciences, logic of comparative and historical analysis, and substantive paradigms of comparative and historical analysis. Reading involves methodological examination of basic works in representative problem areas. 211B. Research Techniques. Requisite: course 211A. Topics include problem of evidence, quantitative and qualitative data, Techniques of data analysis, including use of manuscript content analysis, collaborative biographies, and secondary analysis. Course, topics to be arranged. Letter grading.

212A-212B. Survey Data Analysis. (4-4) Lecture, three hours. Requisites: courses 210A, 210B. Analysis and interpretation of primarily nonexperimental quantitative data, focusing on sample survey and census data. Extensive practical emphasis on utilizing statistical methods encountered in previous courses, culminating in term paper in style of American Sociological Review or similar journal articles. Topics include simple tabular analysis, log-linear analysis, ordinary least squares regression, robust regression, binomial and multinomial logistic regression, and scale construction. Logic of analysis and evaluation of statistical evidence, including diagnostic procedures and methods for handling complex sample survey designs. In Progress and letter grading.

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Designed for graduate and undergraduate students who have had some exposure to statistics and quantitative methods. Introduction to study design, including experimental, longitudinal, survey 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.

213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208 and Community Health Sciences M208B) 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) Formerly numbered 228B. (Same as Statistics M213B) Lecture, three hours. Preparation: knowledge of probability and 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, piecewise exponential hazards models; proportional hazards; non-proportional hazards; parametric survival models; heterogeneity; multi-level survival models. S/U or letter grading.

214A-214B. Naturalistic Methods for Recorded Data. (4-4) Special features of audio and video recordings as sources of data; problems of description and analysis posed by working with recorded data; practical exploration of techniques of data collection and transcription with both audio and video data; analysis of single cases and analytically defined collections; use of computer to organize research with recorded data. In Progress grading.

217B-217C. Ethnographic Fieldwork. (4-4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 210A. History of the survey method; facets of methodology; question item design; scales, indices typologies; data collection — planning and management; network, snowball, and experience sampling; multistage probability sampling; stratifying, clustering. Students participate in survey research project. Letter grading.


218A-218B. Ethnomethodological Methods. (4-4) Examination of techniques used in ethnomethodological research, practice in critical evaluation of research, and directed experience in conducting of an extended investigation employing ethnomethodological procedures. In Progress grading.

219A-219B. Advanced Statistical Methods I, II. (4-4) Lecture, four hours; discussion, two hours. Prerequisites: courses 210A, 210B. Not required. Advanced multivariate statistical methods: discrete variables and events, logit and log-linear regression, event-history analysis, general linear model, exploratory and confirmatory factor analysis, linear causal models, latent variables, reciprocal causation, classification and clustering, time-series analysis.

220. Self and Society. (4) Lecture, three hours. Examination of social processes shaping definition and experience of the self, embodied interactional practices through which the self is constructed in everyday and institutional contexts, formation and transformation of self during life course, and construction of collective identity. Letter grading.

221. Social Ecology. (4) Requisites: courses M18, 116. Designed for graduate students. Examination of various approaches to both microecology and macroecology, including classical and neoclassical ecology, social area analysis, sociocultural ecology, city-size distributions, effects of population density on animals and humans, urbanism, migration, and effects of physical environment on humans.

222. Foundations of Ethnomethodological, Phenomenological, and Analytic Sociologies. (4) Lecture, three hours. Designed for graduate students. Basic issues, methods, and topics of ethnomethodological, phenomenological, conversation-analytic, and related varieties of inquiry. Central themes such as the world of everyday life, problem of rationality, rules/norms and tacit knowledge, problem of social order, speaking and discourse, constituted practices, and production of ordinary interaction in first part; guest presentations by affiliated faculty in second part.

223. Phenomenological and Interactionist Perspectives on Selected Topics. (4) Lecture, three hours. Comparison of phenomenological and symbolic perspectives by examining a particular body of both current and 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 between approaches. When relevant, attention to logical and historical relations of phenomenology and interactionism of pragmatist, existentialist, and ordinary language philosophers.

224A. Major theoretical contributions to the field. 224B. Current work being done in department in several subfields. 225A-225B. Demographic Perspectives on Relations of Family and Economic Systems. (4-4) Requisites: courses 210A, 210B. Examination of interrelationship of family and economic systems; (2) how these systems, and changes in them, affect demographic variables; and (3) how this two-way process influences relationships of family and economic systems over time. 225A. Lectures and readings. 225B. Individual research projects involving term paper and classroom reports of results.


227. Sociology of Knowledge. (4) Designed for graduate students. Survey of theories and research concerning social systems knowledge and role of intellectual and artistic elites in Western societies.

228A-228B. Critical Issues in Macrosociology. (4-4) Lecture, two hours; discussion, one hour. Emphasis on graduate students as of five didactic text to the area of macrosociology in which exemplary works are read, studied for substance and methods, and critiqued in seminar and in written papers. Usually team taught by faculty of varying orientations. In Progress grading.

229A. Sociology of Interpersonal Conflict. (4) Lecture, three hours; discussion, two hours. Origins, development, and outcomes of interpersonal conflicts and troubles that arise in close relationships, households, workplaces, and public places in contemporary societies. Concurrently scheduled with course C146. Letter grading.

229B. People Processing Institutions. (4) Lecture, three hours; discussion, two hours. Course C229B is not requisite to C229B. Theory and research analyzing operation and decision-making processes of a variety of people processing institutions, including police, courts, schools, psychiatry, human service agencies, and medicine. Concurrently scheduled with course C149. Letter grading.

230. Nations and Nationalism. (4) Lecture, three hours. Preparation for work in the area of nations and nationalism through close reading of key theoretical and empirical works in this or related areas. S/U or letter grading.

231. Race and Ethnicity: International Perspectives. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Role of race and ethnicity in political, economic, and social lives of nations other than the U.S., with emphasis on theoretical and methodological issues in comparative research.

232. Class, Politics, and Society. (4) Lecture, four hours. Nature of class structure and how it affects relation of class structure to politics and political power. Issue of salience of class versus other identities such as gender, age, race, and nationalism. Examination of contemporary "globalization" tendencies of capitalism. Letter grading.

233. Foundations of Political Sociology. (4) Lecture, three hours. Designed for graduate students. Survey of the field of political sociology, oriented around critical themes in major theoretical traditions and contemporary exemplars. Special attention to competing perspectives on power, theory of the state, and relationship of class structure to politics.

234. Sociology of Community Organization. (4) Designed for graduate students. Survey of recent and current research on how communities resist and coexist with profoundly inegalitarian political institutions, problem of order, and organization of communal life in the village and metropolis.

235. Theories of Ethnicity. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Examination of variety of theoretical approaches in understanding race and ethnicity in contemporary societies, with emphasis on recent debates among class analysis, pluralist, primordialist, and rational choice perspectives.

236A-236B-236C. International Migration. (4-4-4) Lecture, three hours. S/U or letter grading.

236A. (4) Formerly numbered 236T. 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 the field, linking North American, European, and other global experiences of immigration. S/U or letter grading.

236B. (4) Lecture, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on exploring both theoretical debates of the field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in the field. S/U or letter grading.

236C. (4) Lecture, three hours. Designed for students beginning to undertake international research in field of international migration. Outside lectures, oral presentations of student projects, circulation of completed or draft student papers. S/U or letter grading.

237. Seminar: Theory and Research in Comparative Social Analysis. (2) Designed for graduate students. Emphasis on one issue of particular importance for comparative analysis of capitalism and socialism, North America and Western Europe, developed capitalist and socialist societies and the Third World, and implications for theory construction and social research. S/U grading.

238. Feminist Theory. (4) Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent "antifeminist" feminists. Discussion of directions for future feminist sociology.

239A-239B. Quantitative Research on Social Stratification and Social Mobility. (4-4) Lecture, three hours. Requisites: courses 210A, 210B. Introduction to English language research literature on quantitative social stratification and social mobility in the U.S. and abroad. In Progress grading.

240. Mathematics of Population. (4) Preparation: prior knowledge of matrices, calculus, and probability theory. Further development of stochastic and probabilistic models of growth and composition of a one-sexed population classified by age, plus selected topics on more complicated population models.

241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Gender stratification in society and sociology; extent of gender diversity in human societies past and present; why gender is absent in classical macrosociology; can masculinist paradigms make space for gender or does a feminist-informed sociology necessitate a fresh approach?

M242. Analysis of Data with Qualitative and Limited Dependent Variables. (4) (Same as Statistics M221B) Lecture, three hours. Requisites: courses 210A and 210B, or Statistics 200A, 200B, and 100C. Models for binary, polytomous, and ordered outcomes; censored and truncated dependent variables; sample selection bias and qualitative response models; count outcomes; multilevel models; log-linear models. S/U or letter grading.
243. Introduction to Mathematical Sociology. (4) Lecture, three hours; discussion, one hour; laboratory, two hours. Requisite: studies 210A, 210B. Mathematical treatment of several sociological phenomena, such as occupational mobility, population growth, organizational structure, and friendship patterns, each covered in some detail, including initial development and solution and modification (emphasizing both deductive and computational aspects of mathematics). Concurrently scheduled with course C244A. Students have additional readings, meet as a group one additional hour each week, and learn to use mathematical software such as MATHEMATICA. Letter grading.

C244A-C244B. Conversational Structures I, II. (4-4) Lecture, two hours; discussion, one hour. May be concurrently scheduled with courses CM124A, CM124B. Graduate students have additional assignments and/or meet as a group one additional hour each week. S/U or letter grading. C244A. Introduction to some structures which are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structuring patterns. S/U or letter grading.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Examination of classical approaches to cultural dimension of social life — Weberian, Durkheimian, Parsonsian, and critical — and living traditions they have spawned. Examination of contemporary efforts at constructing a new cultural sociology. Theoretical focus, with consideration of case studies.

246. Cultural Studies: Hermeneutic, Semiotic, and Poststructural Traditions. (4) Lecture, one hour; discussion, two hours. Examination of cultural analysis as it has evolved outside the discipline of sociolo­gy, on premise that these extra-sociological approaches provide critical resources in advancing the field of cultural sociology today. Theoretical and comparative emphasis, with consideration of case studies.

247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experiential approaches to emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and the emotions; creativity and expressed affect; thought, sensations, and the emotions; specific emotions; cultural differences in emotional expression, and abnormality of emotions.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Designed for graduate students. Seminar on selected topics on culture and society. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

M249A. Health Professions. (4) (Same as Community Health Sciences M274.) Lecture, three hours. Requisite: Community Health Sciences 210. Sociological examination of concepts of illness and role of various health professionals, especially physicians. Attention to meaning of professionalization and professional/client relationships within a range of organizational settings. S/U or letter grading.

M249B. Health and Illness Behavior. (4) (Same as Community Health Sciences M275.) Lecture, four hours. Requisite: Community Health Sciences 210, Epidemiology 100. Sociocultural factors affecting differential patterns of health behavior, illness behavior, and sick-role behavior. S/U or letter grading.


251. Topics in the Problem of Social Order. (4) Lecture, four hours. S/U or letter grading.

252. Selected Topics in Sociology of Gender. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit.


254. Human Capital, Social Capital, and Cultural Capital. (4) Lecture, three hours. Designed for graduate students. Intellectual history of these concepts, points of difference and similarity among the concepts, current exemplars of research that utilize these concepts, and critical reflection on research traditions.

255. Cross-Cultural Perspectives on Gender. (4) Discussion, three hours. How does gender manifest itself in lives of different groups of women in the U.S. and abroad? Are universal analytical categories or unified feminist movements possible or is gender too different to cross-culturally? S/U or letter grading.


257. Demography of Marriage Formation and Dissolution. (4) Discussion, three hours. Requisite: course 210A. Extensive and intensive critical examination of major approaches to analysis of marriage formation and dissolution, with focus primarily on demographic literature.

C258. Talk and Social Institutions. (4) Lecture, four hours; discussion, one hour. Practices of communica­tion and social interaction in a number of major institutions and contexts. 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.

259. Social Structure and Economic Change: Historical and Comparative Perspectives. (4) Lecture, four hours. S/U or letter grading.

260. Economy and Society. Discussion, two hours. Designed for graduate students. Review and critique of major analytical traditions in economy and society.


M262. Selected Problems in Urban Sociology. (4) (Same as Afro-American Studies M200C.) Seminar. Social Demography of Los Angeles. (4) (Formerly numbered 263.) (Same as Community Health Sciences M263.) Lecture, three 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. Letter grading.

264. Personal Identity in Historical Perspective. (4) Lecture, three hours. Designed for graduate students. Examination of distinctive features of personal identity in contemporary society through use of historical materials on these aspects of the human. Topics include home, food, clothing and appearance, personal odor, and cleanliness in everyday life.


266. Selected Problems in Analysis of Communication. (4) Requisites: courses C244A, C244B. Variable topics/formats course. Consultant for instructor for topics and formats to be offered in a specific term. May be repeated for credit with topic change. S/U or letter grading.


268. Selected Problems in Psychoanalytic Sociology. (4) Discussion, three hours. Recommended preparation: at least one year of methods coursework. Selected problems in interpretation of sociology and psychoanalysis, which may be substantive (group development, socialization, culture, deviance, collective behavior) or methodological (e.g., uses on social fieldwork and experimental use of psychoanalytic and sociological techniques).

269. Collective Behavior and Social Movements. (4) Lecture, three hours. Characteristics of crowds, mobs, publics, social movements, and revolutions; their relation to social unrest and their role in developing and changing social organization. Impact of collective behavior and social movements on social and political changes. S/U or letter grading.

270. Selected Problems in Socialization. (4) Lecture, four hours. S/U or letter grading.


272. Topics in Political Sociology. (4) Lecture, four hours. S/U or letter grading.

273. Attitudes and Social Structure. (4) Lecture, four hours. S/U or letter grading.


M275. Contemporary Issues of the American Indian. (4) (Same as American Indian Studies M200C and Anthropology M269.) Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in the contem­porary world. Building on background presented in American Indian Studies M200A and cultur­al and expressive experience of American Indians presented in American Indian Studies M200B.

276. Selected Topics in Sociology of East Asia. (4) Designed for graduate students. Selected problems in China, or in China and Japan comparatively. Possible topics include (1) China's Great Proletarian Cultural Revolution, (2) internal contradictions in Chi­nese society: male/female relations, city and country­side, minority nationalities, class struggle under social­ism, etc., (3) China and Japan: two models of development.

277. Japanese Society: Selected Topics. (4) Lecture, two and one-half hours. Designed for graduate students. Social structural characteristics and func­tioning of contemporary Japanese society, with focus on comparison and evaluations of functional (or rational) and cultural explanations of selected social phe­nomena. Topics include forms of social interaction, work organization, family, education, and equality.

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.

279. Seminar: Applied Social Research. (4) Seminar, two hours; discussion, one hour. Opportunities for applied research, distinctive features of applied work, and procedures commonly employed in various areas of research. Examination of representative work in specific areas of applied research.

280. Seminar: Evaluation Research. (4) Designed for graduate students. Technical and political aspects of implementing evaluation research studies. Role of evaluation research in social policy development, as well as procedures for undertaking process and impact evaluations. S/U or letter grading.

281. Selected Problems in Mathematical Sociolo­gy. (4) Exploration of sociological models of sociological processes. Possible topics include mod­els of small groups, social mobility, kinship relations, organizations, social interaction.

282. Organizations and the Professions. (4) Lecture, four hours. S/U or letter grading.

283. Applied Sociology. (4) Discussion, two hours. Designed for graduate students. Examination of roots and intellectual traditions underlying contemporary in­terests and work in applied sociology. Discussion of range of methodological perspectives used in applied research, utility of social research in various substan­tive domains and conflicts and controversies related to ideological activities, competence and perfor­mance requirements, and identification with and par­ticipation in the discipline.

Students with AIDS. (4-4-4) before and after 1949. S/U or letter grading. 

391. Social Theory and Comparative History. Each course treats 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, historical and contemporary, including demographic, economic, political, and social change before and after 1949. S/U or letter grading. 

288A-288B-288C. Mental Health Services for Persons with AIDS. (4-4-4) Designed for graduate students. Analysis of current research on mental health service systems for persons with AIDS. S/U grading. 

289A-289B. Practicum in Conversation Analysis. (2-4) Requisites: courses C244A, C244B. S/U grading. 

Data Analysis. Laboratory, two hours. Practice in analysis of conversational data. 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. 


292A-292B-292C. Research Development. (4-4-4) Lecture, four hours. S/U or letter 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. Advanced study and analysis of current topics in specialized areas of sociology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading. 

M296A-M296B. Social Theory and Comparative History. (4-4) (Same as History M203A-M203B and Political Science M291A-M291B.) Colloquium, three and one-half hours every other week. Introduction to historically rooted social theory and theoretically sensitive history, following the program of the Center for Social Theory and Comparative History. Each course may be taken independently for credit. 

M295C. Theories in Cultural History. (4) (Same as History M205C.) Discussion, 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. 

297B. Urban and Suburban Sociology. (4) Lecture, three hours. History and present condition of cities and suburbs in America. Today’s urban/suburban neighborhoods contrasted with premodem cities. Examination of process of suburbanization as it began in the early 19th century and as it still continues; house and architectural styles and changing patterns of family and social life associated with them; patterns of racial, ethnic, income, and social class distribution in city and suburb; origin and nature of today’s urban ghettos; politics of cities and suburbs. Focus on urban/suburban megalopolises associated with New York City, Los Angeles, Chicago, and Boston. GIS mapping. Letter grading. 

298A-298B-298C. Workshops in Culture and Society. (2-2-2) Discussion, 90 minutes every other week. Interdisciplinary workshops for graduate students and faculty pursuing their research in topics related to interplay of culture and society, whether social, literary, or philosophical in nature. In Progress and S/U or letter grading. 

299A-299B-299C. Seminars: Latin American Sociology. (2-2-2) Seminar, one hour; discussion, one hour. Regular forum for presentation, reading, and discussion of research on sociology of Latin America, including presentations by invited lecturers in Mellon Seminar in Latin American Sociology series. S/U grading. 

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

M402. Practices of Evaluation in Health Services: Theory and Methodology. (4) (Same as Health Services M422) Lecture, four hours. Requisites: Health Services 200A, 200B. Introduction to evaluation of health services programs and policies. Exposure to basic theoretical concepts and specific evaluation methodologies and designs. Letter grading. 

495A-495B. Supervised Teaching of Sociology. (2-2) Seminar, to be arranged. 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) 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. 


**SOUTHEAST ASIAN STUDIES**

**Interdepartmental Program College of Letters and Science**

**UCLA**

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George E. Dutton, Ph.D.
Douglas Hollan, Ph.D.
Shoichi Iwasaki, Ph.D.
Thu-Huong Nguyen Vo, Ph.D.
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Michael Salman, Ph.D.

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**Michael Ross, Ph.D. (Political Science)**

Lecturers

Supa Angkurawaranon, Ph.D. (East Asian Languages and Cultures)
Nenita Domingo, Ph.D. (East Asian Languages and Cultures)
Roy Hamilton, M.A.

**Adjunct Assistant Professor**

I Nyoman Wentesen, Ph.D. (Ethnomusicology)

**Visiting Professor**

Mary S. Zurbuchen, Ph.D. 

**Scope and Objectives**

The Southeast Asian region includes the present-day countries of Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, the Philippines, Singapore, Brunei, and East Timor. This is a massively heterogeneous grouping of societies, ethnicities, languages, cultures, histories, and environments. Southeast Asia in its present geographical configuration has been studied as a region since the 1940s, but it has been recognized as an influential crossroads of humanity for considerably longer. The cultural richness of Southeast Asia and the value of its study present themselves in many guises. For example, it is not uncommon for scholars to interpret Southeast Asia as a region marked by strong traditions in religion, music, the arts, and social relations. And yet, from early times to the present, Southeast Asia has also been at least as noteworthy for its peoples’ capacities for change, international connection, and creative adaptation.

The program approaches Southeast Asia as a region of deep local particularities and transregional engagements. In this sense, in addition to the prominence of the region in many recent international issues (democratization, the Cold War, decolonization, global capital flows, natural resource and environmental regulation, ethnic tensions, etc.), Southeast Asia is also a prominent site for reflection on enduring questions about culture and human diversity. Southeast Asia is taught as a region, with emphasis on the particular languages, cultures, politics, and topographies of individual nations, ethnic groups, subnational regions, and associations. Yet, it is nearly impossible to teach about any part of Southeast Asia without at least occasionally engaging a range of transregional connections that date back to ancient times. Historically, the peoples of Southeast Asia have been engaged with each other as well as with India and China, the Middle East, Europe, and...
the Americas and with global contexts of economics, politics, migrations, and communications. When approached from the point of view that holds Southeast Asia to be a locus of shifting transactions and human connections (rather than a reified and timeless region of common culture), the study of the region speaks powerfully to critical issues across many disciplines. Thus construed, Southeast Asian studies addresses major contemporary concerns in the humanities, social sciences, arts, business, the professions, government policy, and international affairs.

The Southeast Asian Studies Program offers a Bachelor of Arts degree and an undergraduate minor.

Undergraduate Study

Southeast Asian Studies B.A.

The major is designed for students who are deeply interested in the study of Southeast Asian languages, cultures, and societies. It requires the intermediate-level study of one Southeast Asian language, three lower division core courses on Southeast Asia as a region, and at least 14 upper division courses, including a capstone senior seminar. Majors are expected, whenever possible, to study for at least one term at a university in Southeast Asia.

Admission

To enter the major, students must (1) be in good academic standing (minimum 2.0 grade-point average), (2) have completed 45 units and at least one lower division core course in Southeast Asian studies, and (3) file a petition with the student affairs counselor in 10375 Bunche Hall. All interested students should meet with the counselor to discuss the program requirements.

Preparation for the Major

Required: History 9E, Southeast Asian Studies 1, 99; completion of six terms of either Vietnamese, Thai, Filipino/Tagalog, or Indonesian language courses (South and Southeast Languages and Cultures 50A through 51C, or 60A through 61C, or 70A through 71C, or 80A through 81C) or demonstrated proficiency as determined by a placement examination. Proficiency in other Southeast Asian languages may be accepted by petition, pending completion of a placement examination or approval of an alternative course of language study.

Transfer Students

To be admitted as Southeast Asian Studies majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: either one course on Southeast Asia or one year of study of a Southeast Asian language (or demonstrated equivalent ability).

The Major

Required: At least 14 upper division courses (56 units) must be completed, including 10 courses that must have substantial Southeast Asian content, as follows:


Three social sciences and policy courses must be selected from Anthropology 135B, 137, 197L, Asian American Studies 130A, 130B, M153, History M153, 190A through 190E, Political Science C197D.

Variable or selected topics courses (e.g., Asian American Studies 197, Ethnomusicology 197, History 197) fulfill major requirements only when the content focuses substantially on Southeast Asia or a subregion of it.

All majors must also successfully complete Southeast Asian Studies 196.

Three elective courses must be selected from the courses listed above and from those offered by the program. Other courses with substantial Southeast Asian content may be applied to the major pending approval of a petition filed with the student affairs counselor.

Four additional upper division courses on topics outside Southeast Asia must be taken to satisfy the breadth and methods requirement.

The courses must be selected in consultation with and approved by the student affairs counselor. The requirement can be fulfilled either by (1) completing at least 16 units on subjects outside Southeast Asia from any one department whose methodology or discipline can be applied to the study of Southeast Asia (e.g., anthropology, comparative literature, ethnomusicology, history, public health); students may petition to include courses that contribute to strength in a common methodology (e.g., statistics courses offered in different departments or literature and literary history courses offered in different departments) or (2) completing at least 16 units on a region or topic of study outside Southeast Asia but related to it by theme, historical connection, or comparison; for example, students might study China or South Asia, religious studies or development studies, or a destination of migrants from Southeast Asia or a former colonial power in Southeast Asia (France, the U.S., Japan). All four courses must concentrate on the same theme, country, culture, or region.

Up to 20 units taken at an Education Abroad Program in Southeast Asia may be applied toward the major.

At least 20 upper division units must be in departments that offer a departmental major in the College of Letters and Science. All courses for the major must be successfully completed with a grade of C (2.0) or better. No more than two independent studies courses (199s) may be applied toward the degree.

Study in Southeast Asia

Students are expected, whenever possible, to study in Southeast Asia for at least one term during their junior or senior year. The program considers study in Southeast Asia an important cultural experience and an opportunity to advance language proficiency, as well as a way to expand the range of formal classroom education.

The University of California operates Education Abroad Programs (EAPs) in several Southeast Asian countries. See http://www.international.ucla.edu/eap/ for the current list. Majors may enroll in any of the UC-sponsored EAPs in Southeast Asia or they may petition to attend a university in Southeast Asia by making arrangements directly or by enrolling through another American university's study abroad program. Majors may be eligible to apply for financial assistance, awarded on a competitive basis, to help support at least one term of study abroad.

Students majoring or minoring in Southeast Asian Studies who attend an EAP are eligible to earn course credit (4 units) toward the upper division requirements by successfully completing Southeast Asian Studies 190 for a letter grade after they return to UCLA. The principal assignment in course 190 is to write a paper based on field experience or research collected while in Southeast Asia or to produce a creative work (fiction, memoir, art, performance) of equivalent note.

Honors Program

The honors program is designed for majors who wish to carry out a year-long independent research project that culminates in a senior honors thesis. To enter and graduate from the honors program, students must have a 3.5 grade-point average in the major and a 3.0 overall GPA. Students must also obtain agreement from a faculty member to supervise their honors thesis. Application should normally be made during the junior year, after students have completed more than 90 units of coursework. Consult the student affairs counselor for further details about the application, thesis requirements, and rules regarding the selection of a faculty thesis supervisor.

Students should begin to plan their thesis in the final term of their junior year. Formal research should begin in the first term of the senior year, if not earlier, under the direction of the faculty thesis supervisor. Students also enroll in Southeast Asian Studies 199HA, 199HB, and 199HC throughout their senior year. Only 8 units of 199H courses may be applied toward the upper division requirements of the major. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty thesis supervisor and the program honors committee.
Southeast Asian Studies Minor
The Southeast Asian Studies minor is designed for students who wish to augment their major with a focused study of culture and society in Southeast Asia. The minor includes the introductory study of one Southeast Asian language, two lower division core courses on Southeast Asia as a region, and five upper division courses that may focus on one or more Southeast Asian cultures or societies.

To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average), (2) have completed 45 units and at least one lower division core course in Southeast Asian studies, and (3) file a petition with the student affairs counselor in 10375 Bunche Hall.

Required Lower Division Courses (13 units):
History 9E, Southeast Asian Studies 1, and completion of the third term of either Vietnamese, Thai, Filipino/Tagalog, or Indonesian language courses (South and Southeast Languages and Cultures 50C or 60C or 70C or 80C) or demonstrated proficiency as determined by a placement examination. Proficiency in other Southeast Asian languages may be accepted by petition, pending completion of a placement examination or approval of an alternative course of language study.

Required Upper Division Courses (20 units):
Five courses, with (1) at least two humanities and arts courses selected from Art History 114F, Ethnomusicology C159, 191B, 191H, 191Z, South and Southeast Asian Languages and Cultures M130, 162A, 162B, 162C, 170A, 170B, 170C, 182A, 182B, 182C, Theater 102B, 102E, World Arts and Cultures 112B, 120, 133 and (2) at least two social sciences and policy courses selected from Anthropology 135B, 137, 197L, Asian American Studies 130A, 130B, M153, History M153, 190A through 190E, Political Science C197D.

Variable or selected topics courses (e.g., Asian American Studies 197, Ethnomusicology 197, History 197) fulfill minor requirements only when the content focuses substantially on Southeast Asia or a subregion of it. Other courses with substantial Southeast Asian content may be applied pending approval of a petition filed with the student affairs counselor. Up to 12 units taken at an Education Abroad Program in Southeast Asia may be applied toward the minor.

Independent studies courses (199s) may not be applied toward the minor. No more than two upper division courses may be applied toward both the students’ majors and this minor. All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Southeast Asian Studies
Lower Division Courses
1. Introduction to Southeast Asian Studies. (5) Lecture, three hours; discussion, one hour (when scheduled). Introductory survey of diverse and dynamic societies of contemporary Southeast Asia, with strong focus on interdisciplinary themes in humanities and cultural studies. P/NP or letter grading.
2. Sophomore Seminar: Introduction to Interdisciplinary Study of Southeast Asia. (5) Seminar, three hours. Limited to majors. Introduction to methods of interdisciplinary and comparative study, providing students with opportunity to develop competence in using those approaches through investigation of critical issues in Southeast Asian studies. Letter grading.

Upper Division Courses
190. Seminar: Research and Fieldwork in Southeast Asia. (4) Seminar, three hours. Limited to majors. Designing project for study abroad and analyzing research, writing up, and/or performing fieldwork. P/NP or letter grading.
196. Senior Seminar: Southeast Asian Studies. (4) Seminar, three hours. Limited to senior majors. Examination of classic literature and/or state of the field in Southeast Asian studies. Capstone course for majors who complete it by writing substantial literature review or paper based on original research. Letter grading.
199HA-199HB-199HC. Directed Study: Honors Thesis. (4-4-4) Tutorial, to be arranged. Designed for juniors/seniors. Directed research program arranged in consultation with faculty members. P/NP or letter grading.

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 B.A., M.A., or Ph.D. 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.

The department’s courses are primarily designed to serve the four B.A. programs: B.A. in Spanish, B.A. in Spanish and Linguistics, B.A. in Portuguese, and B.A. in Spanish and Portuguese, as well as to prepare students for its three graduate programs: M.A. in Spanish, M.A. in Portuguese, and Ph.D. in Hispanic Languages and Literatures. The courses are also functionally supportive of such interdepartmental programs as the California State Single Subject Credential in Spanish, B.A. and M.A. programs in Latin American Studies, and M.A. and Ph.D. programs in Comparative Literature and Romance Linguistics and Literature.

Undergraduate Study
Undergraduate Courses
Spanish and Portuguese / 531

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Spanish and Portuguese / 531

Spanish and Portuguese / 531

Spanish and Portuguese / 531

Spanish and Portuguese / 531
tive. 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 must take the departmental placement examination. Consult the Schedule of Classes or the department office for test dates and location.

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 B.A.

Preparation for the Major

Required: Spanish 25 or 27 or equivalent, and M42 and M44 or equivalent as determined by the undergraduate adviser. The courses must be passed with an average grade of C or better prior to beginning upper division work in the major.

Transfer Students

To be admitted as Spanish majors, transfer students 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.

The Major

Required: (1) Seven core courses, including Spanish 100A or 100B, 105 or 107 (possible exemption granted by passing departmental writing proficiency examination), 119A or 119B, 120A, 120B, 120C, and 127 and (2) six upper division Spanish elective courses in literature, culture, or linguistics.

Spanish and Linguistics B.A.

Preparation for the Major

Required: Spanish 25 or 27 or equivalent as determined by the placement test; course M35 or Linguistics 20; course M42 or M44 or equivalent as determined by the undergraduate adviser; and three terms of study in one language other than Spanish and English, which may be taken concurrently with the major. The courses must be passed with an average grade of C or better.

Transfer Students

To be admitted as Spanish and Linguistics majors, transfer students 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, one Spanish civilization course or one Spanish American civilization course, and one year of a language other than Spanish or English.

The Major

Required: (1) Spanish 100A, 100B, 105, Linguistics 103, 120A, 120B, (2) one course from Linguistics 160 or 165A or 165B, and (3) three upper division Spanish electives, two of which must be in Spanish linguistics.

Spanish and Portuguese B.A.

Preparation for the Major

Required: Spanish 25, Portuguese 3 or 102B, M42 or M44 or equivalent, 46 or equivalent.

Transfer Students

To be admitted as Spanish and Portuguese majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one year of Portuguese, one Spanish civilization course or one Spanish American civilization course, and one Brazilian culture course.

The Major

Required: (1) Four upper division courses in language and linguistics: Portuguese 100A, 100B, 105, Spanish 105; (2) four upper division courses in literature selected as follows: two courses from Spanish 119A, 119B or from 120A, 120B, 120C and two courses from Portuguese 120A, 120B or from 130A, 130B; (3) six upper division electives, three of which must be in Spanish and three in Portuguese (numbered 124 and above). Only upper division courses taught in the target language may be applied toward the major.

Portuguese B.A.

Preparation for the Major

Required: Portuguese 3, M35, M42 or M44, 46, or equivalent.

Transfer Students

To be admitted as Portuguese majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one nature of language course, one Portuguese civilization course or one Brazilian civilization course, and one Brazilian culture course.

The Major

Portuguese Language and Literature Concentration

Required: Thirteen upper division courses, including Portuguese 100A, 100B, 105, either 120A and 120B, or 130A and 130B, and eight elective courses in Portuguese, or six electives in Portuguese plus two courses from areas that complement the program approved by the undergraduate adviser in Portuguese.

Portuguese and Linguistics Concentration

Required: Completion of six terms of study in one other foreign language or three terms in each of two other foreign languages, in addition to the preparation for the major courses. Spanish is recommended.

The concentration consists of 13 upper division courses, including Portuguese 100A, 100B, 105, M118A, M118B, Linguistics 100, 103, 110, 120A, 120B, and three electives, two of which must be in Luso-Brazilian literature.

Double Majors

Through judicious use of electives, students may find it possible to secure the B.A. degree with two complete majors (e.g., Portuguese/Spanish, Portuguese/History, Portuguese/Sociology, etc.). Interested students should consult the undergraduate adviser in Portuguese as early as possible in their B.A. program.

Study in a Portuguese-Speaking Country

Students are encouraged to spend up to one year in a Portuguese-speaking country to study in a university or conduct research. Appropriate credit may be granted in accordance with the individual program, arranged in consultation with the undergraduate faculty adviser in Portuguese. Proposals must be submitted in advance in writing and must be approved by the department.

Honors Program

The honors program is open to all departmental majors who have completed the required nine upper division core courses with a 3.5 grade-point average. Eligibility is verified by the departmental counselor.

Two honors projects and an honors thesis are required. To graduate with departmental honors, students must first complete an honors project in each of two of their upper division Spanish elective courses. The honors project is a 12- to 15-page term paper on a special topic, selected in consultation with the instructor, to be completed in addition to the normal course requirements. On the basis of the coursework and special interests, students then consult a faculty member in that field and formulate a research project which they pursue under the faculty member’s guidance through Spanish 170. Students research and write an honors thesis (not to be confused with an honors project) of approximately 25 pages on the selected topic. Approval of the honors thesis is the final requirement for departmental honors.

Portuguese Minor

To enter the Portuguese minor, students must have an overall grade-point average of 2.0 or better and must complete Portuguese 3 or 102B.

Required Lower Division Course (4 units): Portuguese 46.

Required Upper Division Courses (24 units): Portuguese 105 and five Portuguese courses selected from 100A through 199 (except 102A, 102B). Only one 4-unit Portuguese 199 course may be selected.

All minor courses must be taken for a letter grade, with an overall grade-point average of
2.0 or better. 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 (8 units): Spanish 25 or 27, and M42 or M44.

Required Upper Division Courses (24 to 25 units): Six courses in literature, of which four (22 units) must be selected from Spanish 119A through 197 (one of the four must be from either 119A or 119B or from 120A, 120B, or 120C). Only one 4-unit Spanish 199 course may be selected, and only two upper division courses applied toward the minor may overlap with the major.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. 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 (8 units): Spanish 25 or 25A, and M35.

Required Upper Division Courses (24 units): Spanish 100A, 100B, three courses from 107, 115, M118A, M118B, and one other upper division Spanish course.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.A.) degree in Spanish, Master of Arts (M.A.) degree in Portuguese, and Doctor of Philosophy (Ph.D.) degree in Hispanic Languages and Literatures.

Portuguese
Lower Division Courses

1. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. Required of all majors. Lectures conducted in English; discussion sections conducted in either Spanish or English. Introduction to basic Portuguese vocabulary and grammar.

2. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1.

3. Intermediate Portuguese. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 2.

4. Portuguese Conversation. (2-2) Discussion, three hours. Enforced requisite: course 3 with a grade of B or better.


M35. Spanish, Portuguese, and Nature of Language. (4) (Same as Spanish M35.) Lecture, three hours. 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.


M42. Civilization of Spain and Portugal. (4) (Same as Spanish M42.) Lecture, three hours; discussion, one hour. Required of majors. Lectures conducted in English; discussion sections conducted in either Spanish or English. Highlights of civilization of Spain and Portugal, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

M44. Civilization of Spanish America and Brazil. (4) (Same as Spanish M44.) Lecture, three hours; discussion, one hour. Required of majors. Lectures conducted in English; discussion sections conducted in either Spanish or English. Highlights of civilization of Spanish America and Brazil, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

46. Brazilian Culture and Civilization. (4) Lecture, three hours. Conducted in English. Topical analysis of cultural history of Brazil, with emphasis on physical environment, principal historical, social, and economic development, and artistic manifestations. P/NP or letter grading.

Upper Division Courses


102A-102B. Intensive Portuguese. (4-4) Preparation: foreign language experience (other than Portuguese). Development of speaking and reading skills equivalent to those covered in three terms of the traditional pattern and to meet special needs of advanced undergraduate and graduate students.

103. Language and Popular Culture. (4) Lecture, three hours. Required: course 102B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity.


M118A-M118B. History of Portuguese and Spanish literature. (4-4) (Same as Spanish M118A-M118B.) Lecture, three hours. Required: courses M35, 100A. Major features of development of Portuguese and Spanish languages from their origins in Vulgar Latin to modern times. M118A. Phonology; M118B. Morphology and Syntax.

120A-120B. Introduction to Portuguese Literature. (4-4) Lecture, three hours. Required: course 25. Introduction to principal periods, currents, and authors of Portuguese literature.


129. 20th-Century Portuguese Literature. (4) Lecture, three hours. Required: course 25. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C229. P/NP or letter grading.

130A-130B. Brazilian Literature and Identity: Introduction. (4-4) Lecture, three hours. Required: course 25. Introduction to principal periods, currents, and authors of Brazilian literature.

C131. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Required: course 25. Study of most important authors to 1830. May be repeated for credit with topic change. Concurrently scheduled with course C231. P/NP or letter grading.


C135. 20th-Century Brazilian Literature. (4) Lecture, three hours. Required: course 25. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C235. P/NP or letter grading.

141. Brazilian Film and Literature. (4) Lecture, three hours. Conducted in English. Topical analysis of main literary and historical themes of Brazilian culture, through films and literary texts. P/NP or letter grading.

197. Undergraduate Seminar. (4) Seminar, three hours. Required: course 25. Variable topics course with readings, discussions, and papers; consult Schedule of Classes or department counselor for topic to be offered in a specific term.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Eight units may be applied toward the major requirements.
Graduate Courses

M200. Research Resources. (4) (Same as Spanish M200.) Lecture, three hours. Identification and use of research resources for graduate students.

M201A-M201B. Literary Theory and Criticism. (4-4) (Same as Spanish M201A-M201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.

202. Synchronic Morphology and Phonology. (4) Lecture, three hours. Study of theoretical synchronic linguistics as applied to Portuguese.

204A-204B. Generative Grammar. (4-4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter.

M205A-M205B. Development of Portuguese and Spanish Languages. (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.


C226. Baroque and Neoclassical Portuguese Literature. (4) Lecture, three hours. Study of principal features through representative works. May be repeated for credit with topic change. Concurrently scheduled with course C126.

C227. 19th-Century Portuguese Literature. (4) Lecture, three hours. Study of principal features through representative works. May be repeated for credit with topic change. Concurrently scheduled with course C127. S/U or letter grading.

C228. Post-Romanticism and Naturalism in Portuguese Literature. (4) Lecture, three hours. Study of principal features through representative works. May be repeated for credit with topic change. Concurrently scheduled with course C128.

C229. 20th-Century Portuguese Literature. (4) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C129. S/U or letter grading.

C231. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Study of most important authors to 1830. May be repeated for credit with topic change. Concurrently scheduled with course C131. S/U or letter grading.

C232. 19th-Century Brazilian Literature and Culture. (4) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C132. S/U or letter grading.


C235. 20th-Century Brazilian Literature. (4) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C135. S/U or letter grading.

M249. Folk Literature of the Spanish and Portuguese Worlds. (4) (Same as Spanish M249.) Lecture, three hours. Intensive study of folk literature of the Spanish and Portuguese cultures as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech.

M251A-M251B. Studies in Gallegan-Portuguese and Old Spanish. (4-4) (Same as Spanish M251A-M251B.) Lecture, two hours. Study of problems relat- ed to historical development of Gallegan-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guide- ance committee.

252. Studies in Early Portuguese Literature. (4) Discussion, two hours.

253. Studies in Modern Portuguese Literature. (4) Discussion, two hours.

254. Studies in Early Brazilian Literature. (4) Dis- cussion, two hours.

255. Studies in Modern Brazilian Literature. (4) Discussion, two hours.


290. Special Topics. (4) Discussion, two hours. De- signed for graduate students. Consult Schedule of Classes or department counselor for topics to be of- fered in a specific term. S/U or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice person- nel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guid- ance and supervision of a regular faculty member res-ponsible for curriculum and instruction at the Univer- sity. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 to 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 M.A. course re- quirements.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official ac- ceptance of candidacy by department. Individual preparation for M.A. comprehensive examination or Ph.D. 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.


Spanish

Lower Division Courses

1. Elementary Spanish. (4) Discussion, five hours; laboratory, one hour.

1G. Reading Course for Graduate Students. (4) Lecture, three hours. Knowledge of Spanish not re- quired. May not be applied toward degree require- ments. S/U grading.

2. Elementary Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1.

2A. Intensive Spanish. (4) Lecture, 20 hours; labora- tory, 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.

2B. Advanced Conversation. (2-2) Discussion, three hours. Course 2B is open to students with credit for course 4. Students who have completed course 3 with a grade of B- or better may enroll directly in course 2B.

29A-9B. Advanced Conversation. (2-2) Discussion, three hours. Enforced requisite: course 2B.

25. Advanced Spanish and Composition. (4) Lecture, three hours. Enforced requisite: course 5. Em- phasis on writing grammatically correct, lexically so- phisticated, and rhetorically competent expository prose. Course 25 or 25A is requisite to all upper divi- sion courses in Spanish.

27. Composition for Spanish Speakers. (4) (For- merly numbered 25A.) Lecture, three hours. Enforced requisite: course 5. Practice in speaking, reading, and writing Spanish using appropriate vocabulary and cultural situations for students with special interest in fields such as medi- cine, business, law, etc. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Lan- guage. (4) (Same as Portuguese M35.) Lecture, three hours. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature and structure of diver- sity, evolution, social and cultural settings, literary us- es. Study of language and its relation to other areas of human knowledge.

M42. Civilization of Spain and Portugal. (4) (Same as Portuguese M42.) Lecture, three hours; discus- sion, one hour. Required of majors. Lectures conduct- ed in English; discussion sections conducted in either Spanish or English. Highlights of civilization of Spain and Portugal, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

M44. Civilization of Spanish America and Brazil. (4) (Same as Portuguese M44.) Lecture, three hours; discussion, one hour. Required of majors. Lectures conducted in English; discussion sections conducted in either Spanish or English. Highlights of civilization of Spanish America and Brazil, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

60A-60B-60C. Hispanic Literatures in Translation. (4-4-4) Lecture, three hours. Class readings and analysis of selected works in translation. Classroom discussion, papers, and examinations in English. 60A. Spanish Literature; 60B. Spanish-American Lit- erature; 60C. Don Quijote.
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61A-61B-61C. Hispanic Literatures in Spanish. (4-4-4) Lecture, three hours. Not open for credit to students who have completed course 100A. Course in 60 segments: Class readings and analysis of selected works. Classroom discussion, papers, and examinations in Spanish. 61A. Spanish Literature; 61B. Spanish-American Literature; 61C. Don Quijote.

62A-62B-62C. Spanish Literatures and Film. (4-4-4) Lecture, three hours; film screenings, two to three hours. Analysis of main aesthetic, cultural, and philosophical questions in the Hispanic world as articulated in literature and film, addressing not only principal currents affecting Hispanic artistic expression but also diverse strategies employed by two distinct modes of representation. 62A. Spain; 62B. Spanish America; 62C. The Chicoano Experience.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Knowledge of Spanish not essential. Variable topics courses designed to explore various themes and issues pertinent to Hispanic literature and culture.

88A. Reaching 2001 (Fantasy of Reality and Reality of Fantasy). Seminar, three hours. Introduction to some specific literary strategies employed by writers of the Hispanic world and analysis of formal characteristics and techniques such as surrealism, magical realism, the fantastic, and realism.

Upper Division Courses

100A-100B. Introduction to Study of Spanish Grammar. (4-4) Lecture, three hours. Requisite: course M35. 100A. Phonology and Morphology. Analysis of phonemic and morphological systems of Spanish. 100B. Syntax. Study of syntactical systems of Spanish.


109. Spanish of Southern California. (4) (Formerly numbered 107.) Lecture, three hours. Requisites: courses M35, 100A. Advanced pronunciation, word formation, syntax, and lexicon of the Spanish of Southern California, with attention to regional features, social and age levels of speech, and interference from English. P/NP or letter grading.

115. Applied Linguistics. (4) Lecture, three hours. Requisites: courses M35, 100B. Survey of major linguistic problems faced by teachers of Spanish. M118A-M118B. History of Portuguese and Spanish. (4-4) (Same as Portuguese M118A-M118B.) Lecture, three hours; courses M35, 100A. Major features of development of Portuguese and Spanish languages from their origins in vulgar Latin to modern times. M118A. Phonology; M118B. Morphology and Syntax.

119A. Introduction to Study of Literature: Prose. (4) Lecture, three hours. Requisite: course 25. Introduction to study of literary devices, figures of speech, and distinctive stylistic features in prose literature of Spain and Spanish America, particularly the novel and essay.

119B. Introduction to Study of Literature: Poetry. (4) Lecture, three hours. Requisite: course 25. Introduction to basic techniques, styles, and features of poetry through detailed study of several series of Spanish and Spanish American poems from different periods. Letter grading.

119C. Introduction to Study of Literature: Drama. (4) (Formerly numbered 119B.) Lecture, three hours. Requisite: course 25. Introduction to basic features and components of drama through detailed study of texts from different periods. Letter grading.

120A-120D. Literature in the Hispanic World. (5 each) Lecture, four hours; discussion, one hour. Requisite of Spanish majors; must be taken in sequence. Historical/cultural survey of Hispanic literature from its beginning in medieval Iberia to contemporary writing in Spain, Latin America, and the U.S. Relationship between fundamental unity and astonishing geographic and cultural diversity. Particular attention to relation between literature and multicultural societies in which it is produced, as well as to individual texts which define or create new artistic possibilities. P/NP or letter grading.


122. Medieval Literature: El Camino de Santiago. (4) Lecture, three hours. Introductory course in medieval Spanish literatures following route of imaginary pilgrimage through northern Spain in the year 1300, from Santiago de Compostela to shrine of St. James in Santiago de Compostela. Reading works of literature (and viewing slides, listening to music, etc.) associated with each stop along the way. Letter grading.

123. Medieval Literature: Poetry. (4) Lecture, three hours. Recommended preparation: course 120A. Study of main genres through representative works.


128. The Enlightenment and Romanticism in Spain. (4) Lecture, three hours. Recommended preparation: course 120B. Study, through representative works, of main manifestations of thought and literature from 1700 to 1850.

130. Post-Romanticismo, Realism, and Naturalism in Spain. (4) Lecture, three hours. Recommended preparation: course 120B. Study of main trends of Spanish literature from 1850 to 1898.

132. 20th-Century Spanish Prose. (4) Lecture, three hours. Recommended preparation: course 120C. Study of several representative works of Spanish prose literature since 1898.

133. 20th-Century Spanish Poetry and Drama. (4) Lecture, three hours. Recommended preparation: course 120C. Study of several representative works of Spanish poetry since 1898.

137. Literature of Colonial Spanish America. (4) Lecture, three hours. Recommended preparation: course 120A. Study of most important genres and authors from the Conquest to 1810.

139. Romanticism and Realism in Spanish-American Literature. (4) Lecture, three hours. Recommended preparation: course 120B. Study, through representative literary works, of most important currents of thought and literary trends from 1810 to 1880.

140. Modernismo. (4) Lecture, three hours. Recommended preparation: course 120B. Study, through representative works, of principal characteristics of modernismo in Spanish-American literature.


M145A-M145B. Introduction to Chicano Literature. (4-4) (Same as Chicana and Chicano Studies M145A-M145B.) Lecture, three hours. Requisite: course 25 or 25A. Introduction to texts representative of the Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view characteristic of work written by Chicanos during the 20th century. Most required reading is in Spanish. Bilingual and English works are included and discussed. Reading and analysis of a number of important scholarly and critical statements pertaining to characteristics and development of the Chicano literary corpus. M145A. Literature to 1960; M145B. Literature after 1960.

M146. Chicano Narrative. (4) (Same as Chicana and Chicano Studies M146.) Lecture, three hours. Introduction to major narrative genres in Chicana/Chicano literature tradition — biographies, chronicles, autobiography, novel, romance, and satire. Emphasis on way in which narrative forms are formed by and address specific social/historical problems.

147. Central American Literature. (4) Lecture, four hours. Study of representative novels, short stories, poems, testimonio writings, and essays by contemporary Central American authors and authors of Central American heritage. P/NP or letter grading.

149. Folk Literature of the Hispanic World. (4) (Formerly numbered M149.) Lecture, three hours. Study of history and present dissemination of principal forms of folk literature throughout the Hispanic countries.

151A-151B. Women in Hispanic Literature. (4-4) Discussion, three hours. Recommended preparation: courses 120A, 120B, 120C. Study of works by and about women, with emphasis on portrayal of women, women’s roles, and myths of womanhood within the Hispanic socio-ideological context. 151A. Spain; 151B. Spanish America.

M161. Film and Literature of the Spanish-Speaking World. (4) (Same as Comparative Literature M174.) Lecture, three hours. Exploration of perceptions of reality offered by different authors from Spain, Latin America, and the Chicano community. P/NP or letter grading.


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 the present.

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 of the period.

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.


239. Major Currents in Modern Spanish-American Literature. (4) Lecture, three hours. Study of principal Spanish-American writers from modernism to the present.


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.

250A-250B. Development of Portuguese and Spanish Languages. (4-4) (Same as Portuguese M205A-M205B.) Lecture, three hours. Study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.

251. Dialectology. (4) Lecture, three hours. Major dialect areas of peninsular and American Spanish, with distinguishing features of each. Influence and contribution of cultural and historical features, including indigenous historical writings.

252. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

253. Medieval Epic and Narrative Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

254. Poetry of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

255. Drama of the Golden Age. (4) Lecture, three hours. Readings of and lectures on the comedia.

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.

265. Cervantes. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

271A-271B. Studies in 19th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

272A-272B. Studies in 20th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

277A-277B. Studies in Colonial Spanish-American Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

278A-278B. Studies in 19th-Century Spanish-American Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

280A-280B. Studies in Contemporary Spanish-American Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

286A-286B. Studies in Hispanic Folk Literature. (4-4) (Prerequisites: M296A-M296B and M296C.) Lecture, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

290. Special Topics. (4) Lecture, two hours. Variable topics. Consent of appropriate guidance committee.

297A. Seminar: Literary Theory. (5) (Same as Comparative Literature M297A, Italian M297A, and Scandinavian M297A.) 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.

299. Research Resources for European Studies. (2) (Same as French M299, German M299, Information M299, Italian M299, and Slavic M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. S/U grading.

310. Teaching Spanish in Elementary School. (4) Lecture, three hours.

Scope and Objectives

There is no major in speech; however, several undergraduate courses are offered for interested students.

Speech

Lower Division Courses

A. Oral Communication for Nonnative Speakers. (No credit) Lecture, four hours. Speech A displaces 4 units on student’s Study List but yields no credit toward a degree. Emphasis on public and private speaking skills in American English necessary for social, academic, and professional growth in this country. Provides experiences necessary to remove barriers to communication created by inappropriate oral language usage. Offered in summer only. P/NP grading.

1. Principles of Oral Communication. (4) Enforced prerequisite: satisfaction of Subject A requirement. Theory and practice of informal public speaking, including selection of content, organization of ideas, language, and delivery; practice in extemporaneous and manuscript speaking; training in critical analysis through reading and listening to contemporary speeches.

1A. English Language Program in Effective Speaking. (4) Lecture, eight hours and 20 minutes. Combination of courses A and 1 to help nonnative speakers of English increase fluency and vocabulary while also improving presentation skills. Language usage, reasoning, style, and delivery. Conversation and pronunciation practice. Offered in summer only. P/NP or letter grading.

2. Public Speaking and Discussion. (4) Enforced prerequisite: course 1. Continuation of course 1, with special emphasis on group discussions, panels, symposia, debates, and formal public speaking. Critical analysis of speeches in both contemporary and historical settings.

Upper Division Courses


190A-190B. Forensics. (2-2) May be repeated once for credit.

191. Analysis and Briefing. (2) Intensive study of selected political or social issues; preparation of bibliography; analysis and evaluation of issues and arguments. May be repeated once for credit.

197. Proseminar: Rhetoric. (4) Designed for seniors. Variable topics course involving intensive study of discourse associated with a single major issue or personality.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Limited to seniors.
Graduate Degrees (Ph.D.) degrees in Statistics.

Science (M.S.) and Doctor of Philosophy

Department of Statistics offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Statistics.

Statistics

Lower Division Courses

10. Introduction to Statistical Reasoning. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, M12, 13, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, M13, Economics M40, or Organismic Biology M22). Descriptive statistics, elementary probability, random variables, binomial and normal distributions. Large and small sample inference concerning means. P/NP or letter grading.

10H. Introduction to Statistical Reasoning (Honors). (4) Lecture, three hours; discussion, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 10, 11, M12, 13, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, M13, Economics M40, or Organismic Biology M22). Descriptive statistics, elementary probability, random variables, binomial and normal distributions. Large and small sample inference concerning means. Introduction to statistical software. Letter grading.

11. Introduction to Statistical Methods for Business and Economics. (5) Formerly numbered M11.) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open to students with credit for course 10, M12, 13, 100A, 100B, 100C, Anthropology M80, Geography M40, Mathematics 170A, 170B, or Sociology M18 (or former Statistics M11, M13, or Organismic Biology M22). Elements of statistical analysis. Presentation and interpretation of data; descriptive statistics; theory of probability and basic sampling distributions; statistical inference, including principles of estimation and tests of hypotheses; introduction to regression and correlation. P/NP or letter grading.

M12. Introduction to Statistical Methods for Social Sciences. (5) (Same as Anthropology M80, Geography M40, and Sociology M18.) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 11, or 13 (or former Statistics M11, M13, Economics M40, or Organismic Biology M22). Elements of statistical analysis for social sciences. Presentation and interpretation of data, descriptive statistics, theory of probability and basic sampling distributions; statistical inference, including principles of estimation and tests of hypotheses, introduction to regression and correlation. P/NP or letter grading.

13. Introduction to Statistical Methods for Life and Health Sciences. (Formerly numbered M13.) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 11, M12, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, Economics M40, or Organismic Biology M22). Presentation and interpretation of data, descriptive statistics, introduction to correlation and regression and to basic statistical inference (estimation, testing of means and proportions, ANOVA) using both bootstrap methods and parametric models. P/NP or letter grading.

Upper Division Courses

100A. Introduction to Probability Theory. (4) Formerly numbered M100A.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A; open to graduate students. Students may receive credit for only two of the following: courses 100A, 110A, Biostatistics 100A. Probability distributions, random variables and vectors, expectation. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A. Survey sampling, estimation, testing, data summary, one- and two-sample problems. P/NP or letter grading.

100C. Regression Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. Practice in solving statistical problems. Basic techniques of cleaning and checking data, exploratory analysis, model building, model checking, reporting results, working with clients. P/NP or letter grading.

110A-110B. Applied Statistics. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 100A. Successful completion of the minor courses must be taken for a letter grade. 110A. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A. Students may receive credit for only two of the following: courses 100A, 110A, Biostatistics 100A. Probability, distributions, expectation, estimation, central limit theorem, confidence intervals, testing, 110B. Requisite: course 110A. One- and two-sample problems, goodness of fit and contingency tables, correlation and regression, analysis of variance, non-parametrics.

CM120A-CM120B. Applied Regression Analysis. (4-4) (Formerly numbered M120A-M120B.) (Same as Biomathematics M153A-M153B and Biostatistics M153A-M153B.) Lecture, three hours. Designed for juniors/seniors. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical influence. Concurrently scheduled with courses C217A-C217B. P/NP or letter grading.

C125. Experimental Design. (4) Lecture, three hours. Requisite: course 100C or 110B or CM120A or Biomathematics M153A or Biostatistics M153A. Basic principles of analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimizing aberrations, designs, robust parameter designs. Concurrently scheduled with course C225. P/NP or letter grading.

C126. Resampling Methods. (4) Formerly numbered 125.) Lecture, three hours; discussion, one hour. Preparation: one lower division statistics course. Simple intuitive introduction to practical application of statistics for experiments and surveys in business and biological, medical, physical, and social sciences. Resampling methods — bootstrap and permutation test — are table-free and distribution-free, require common sense (not calculus), yet have a broader range of applications than classical parametric statistical procedures. Concurrently scheduled with course C226. P/NP or letter grading.

130A. Statistical Analysis with STATA. (4) Lecture, three hours; discussion, one hour. Requisite: course 10 or M12 or 13. How to manage and analyze quantitative data using STATA statistical software. Graphical analysis and programming and extensions to basic package. P/NP or letter grading.

130B. Statistical Analysis with SAS. (4) (Formerly numbered 130D.) Lecture, three hours; discussion, one hour. Requisites: courses 10, 130A. How to manage and analyze quantitative data using statistical procedures produced by SAS Institute, Inc. Discussion of many statistical techniques available in SAS and ways to extend basic system by SAS programming. P/NP or letter grading.


M140. Introduction to Spatial Statistics. (4) (Same as Geography M171.) Lecture, three hours; laboratory, one hour. Requisite: course M12. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.

150. Data Analysis. (4) Lecture, three hours. Requisites: courses 100A and 100B, or 110A and 110B, or CM120A and CM120B, or one course from 10, 11, M12, 13 and one upper division statistics course. Practice in solving statistical problems, with coverage of basics of cleaning and checking data, exploratory analysis, model building, model checking, reporting results, working with clients. "P"P/NP or letter grading.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Statistics.
153. Statistical Analysis with Missing Data. (4) Lecture, three hours. Requisites: courses 10, 11, M12, 13. Routine dealing with correspondence and missing data, including introduction to terminol- ogy, limitations of simple methods, and modern meth- ods for dealing with missing data, such as EM algo- rithm and multiple imputation. P/NP or letter grading.


170. Introduction to Time-Series Analysis. (4) Lecture, three hours. Requisites: courses 10 or 11 or M12 or 13 or Anthropology M80 or Geography M40 or Sociology M18. Exploration of standard methods in temporal and frequency analysis used in analysis of numerical time-series data. Exam- ples provided throughout, and students implement techniques discussed. P/NP or letter grading.

C180. Introduction to Bayesian Statistics. (4) (Formerly numbered B20.) Lecture, three hours; discussion, one hour. Requisite: Mathematics 25B, 32B, 33B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering foundational aspect currently applied to estimation, hypothesis testing, and decision making. Topics include Stein paradox, non- parametric Bayes, and statistical learning. Examples of applications include protein alignment algorithms and image denoising procedures. Concurrently scheduled with course CM236. P/NP or letter grading.

CM185. Statistical Methods for Physical Sciences. (4) (Same as Atmospheric Sciences CM185.) Lecture, three hours. Designed for juniors/seniors. Statis- tical framework for data analysis in fields of atmos- pheric sciences, astronomy, geology, and chemistry, depending on class composition. Presentation of popular techniques in all fields, with emphasis on ap- plications. In general, although understanding of the under- standing of theory is needed. Concurrently scheduled with course CM252. P/NP or letter grading.


199. Special Studies in Statistics. (1 to 4) Tutorial, one to four hours. At discretion of chair and subject to availability of staff, individuals may study topics suit- able for credit. Cannot be credited specifi- cally as second courses. No more than 8 units may be applied toward degree requirements. P/NP or letter grading.

199. Independent Studies for Internships. (2 to 4) Tutorial, to be arranged. Independent studies course to be supervised jointly by the Center for Experiential Education and Service Learning and faculty supervi- sor. Further supervision to be provided by business for which student is doing internship. P/NP or letter grading.

Graduate Courses


211. Analysis of Data with Qualitative and Limit- ed Dependent Variables. (4) (Same as Sociology M242.) Lecture, three hours. Requisites: courses 100A, 100B, and 100C, or Sociology 210A and 210B. Multinomial decisions and ordered outcomes; censored and truncated dependent variables; sample selection bias and qualitative response mod- els; count outcomes and multilevel models; log-linear models. S/U or letter grading.

212. Program Evaluation and Policy Analysis. (4) Lecture, three hours. Requisite: course M120B. Pri- mary focus on methods of program evaluation. Ran- domized experiments, observational studies, and test- ics such as matching, stratification, covariance ad- justments, and sensitivity analyses. Letter grading.

M213. Applied Event History Analysis. (4) (Same as Sociology M213B.) Lecture, three hours. Prepara- tion: exposure to binary response models. Requisites: Sociology 210A, 210B. Introduction to regression-like analyses in which outcome is “time to event.” Topics include logit models for discrete-time event history models, survival analysis, proportional hazards; propor- tional hazards; nonproportional hazards; paramet- ric survival models; heterogeneity; multilevel survival models. S/U or letter grading.

216. High-Dimensional Data Analysis. (4) Lecture, three hours. Requisites: courses 100A, 100B, 100C. Designed for graduate students. Discussion of sever- al statistical methodologies useful for exploring volu- minous data, including principal component analysis, clustering and classification, tree-structured analysis, neural network, hidden Markov models, sliced inverse regression (SIR), and principal Hessian direction (PHD). S/U or letter grading.

217A-217B. Applied Regression Analysis. (4-4) (Formerly numbered 217A-217B.) Lecture, three hours. Requisites: terms offered. 217A. Requisites: courses 100A, 100B, 100C. Designed for graduate students. Applied re- gression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized lin- ear model (e.g., logistic regression). Special attention to modern extensions of regression, including regres- sion diagnostics, graphical procedures, and boot- strap inference for statistical models. Concurrently en- rolled with courses CM120A-CM120B. S/U or letter grading.


M222. Spatial Statistics. (4) (Formerly numbered 222.) (Same as Geography M272 and Urban Planning M215.) Lecture, three hours. Designed for gradu- ate students. Survey of modern methods used in analysis of spatial data. Demonstration of various techniques using raw real data sets from diverse fields, in- cluding neuroimaging, geology, seismology, de- mography, and environmental sciences. S/U or letter grading.

M225. Experimental Design. (4) (Formerly numbered 225.) Lecture, three hours. Requisite: course 100C or 110B or CM120A or Biomathematics M153A or Biostatistics M153A. Introduction to principles of analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration de- signs, robust parameter designs. Concurrently sched- uled with course C226. P/NP or letter grading.

C226. Resampling Methods. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Simple intuitive introduction to practical ap- plication of statistics for experiments and surveys in business and biological, medical, physical, and social sciences. Resampling methods — bootstrap and permutation test — are table-free and distribution-free, require common sense (not calculus), yet have a broader range of applications than classical paramet- ric statistical procedures. Concurrently scheduled with course C126. S/U or letter grading.


231. Pattern Recognition and Machine Learning. (4) Lecture, three hours. Designed for graduate stu- dents in fundamental computer science and algo- rithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and com- putational biology. Topics include Bayesian decision theory, parametric and nonparametric learning, clas- tering, complexity (VC-dimension, MLD, AIC), PCA/ ICA/TCA, MDS, SVM, boosting. S/U or letter grading.


232B. Statistical Computing and Inference in Vi- sion and Image Science. (4) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), computer vision. Introduction to broad range of algorithms for statistical inference and learn- ing 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, partial differ- ential equations. S/U or letter grading.
C236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. 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 include protein interaction algorithms and image denoising procedures. Concurrently scheduled with course C180. S/U or letter grading.


M245. History of Statistics. (4) (Same as History M296.) Seminar, three hours. History of statistics ranges over vast and diverse territory. Development of mathematical methods; philosophical, political, and social issues that were linked to their emergence and use. S/U or letter grading.

M250. Statistical Methods for Epidemiology. (4) (Same as Biostatistics M211 and Epidemiology M211.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: Epidemiology 201A, 201B. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in Epidemiology 251A and 201B and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

M251. Statistical Methods for Life Sciences. (4) (Same as Organismic Biology M216.) Lecture, three hours. Requisite: course 13. Fundamentals of statistics as applied in life sciences, including statistical inferences for continuous and categorical data (estimation, testing of means and proportions, ANOVA) study design, linear regression, and introduction to principle components analysis. Methods to be implemented on computer with SAS. S/U or letter grading.

CM252. Statistical Methods for Physical Sciences. (4) (Formerly numbered M252.) (Same as Atmospheric Sciences CM213.) Lecture, three hours. Designed for graduate students. Statistical framework for data analysis in fields of atmospheric sciences, astronomy, geology, and chemistry, depending on class composition. Presentation of popular techniques in all fields, with emphasis on applications and data, not theory, although some understanding of theory is needed. Concurrently scheduled with course CM185. S/U or letter grading.


CM65. Introduction to Statistical Analysis of Environmental Data. (4) (Same as Environmental Science and Engineering M255.) Lecture, three hours. Designed for graduate students. Routine intermediate applications of statistical concepts, with emphasis on applications to environmental data and statistical computing with the language R. Statistical analysis and scientific report from real data required. Concurrently scheduled with course CM155. 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 Organismic Biology 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. 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.

291. Statistics Consulting Seminar. (4) Seminar, three hours. Preparation: at least one UCLA graduate-level statistics course. 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 academia. Review of regression analysis and design of experiments, together with basic statistical programs. Presentations and written reports required. S/U or letter grading.


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

495A. Teaching College Statistics. (2) Formerly numbered 495S. Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential departmental teaching assistants and new Ph.D. 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.

495C. Evaluation of Teaching Assistants. (2) Seminar, two hours. Overview of new trends and directions in teaching of statistics. Observation of teaching assistants twice by instructor to give them chance to observe and analyze their own strengths and weaknesses and think about how they can improve their teaching. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Supervised individual reading and study on project approved by a faculty member. May be repeated for credit. Letter grading.


STUDY OF RELIGION

See Religion, Study of

SURGERY

David Geffen School of Medicine

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Chairs
E. Carmack Holmes, M.D. (William P Longmire, Jr., Professor of Surgery), Executive Chair
James B. Atkinson, M.D., Vice Chair, Clinical Affairs
Bruce E. Stabile, M.D., Vice Chair, Harbor-UCLA
Jesse E. Thompson, Jr., M.D., Vice Chair, Olive View-UCLA
Achilles Demetriou, M.D., Ph.D., Chief of Surgery, Cedars-Sinai
Arthur Fleming, M.D., Chief of Surgery, King/Drew

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 pathology of these conditions, the therapy that may be applied, and the anticipated results of treatment. They are also encouraged to learn about the impact of surgical illness on the patient and the patient's family and environment.

Third-year students participate in one 12-week core clerkship in clinical surgery and are assigned to rotations at a combination of UCLA, Harbor-UCLA, West Los Angeles VA, and Olive View-UCLA Medical Centers. Each facility has a special orientation depending on the patient population and the individual staff, in addition to the initial surgery clerkship orientation. 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 further details on the Department of Surgery and a listing of the courses offered, see http://www.surgery.medsch.ucla.edu.
Surgery

Upper Division Course

199. Special Studies. (2 to 8) Tutorial, to be arranged. Individual projects carried out under direction of a faculty member. Special studies in surgery, with appropriate objectives, readings, laboratory work, or other assignments designed for proper training of students. P/NP or letter grading.

TEACHER EDUCATION

See Diversified Liberal Arts and Education

THEATER

School of Theater, Film, and Television

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William D. Ward, M.F.A., Chair

Professors
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Sue-Ellen Case, Ph.D.
Gilbert Gates, M.A.
Gary A. Gardner, Ph.D.
Hanae Geogamah, B.F.A.
Michael J. Hackett, Ph.D.
Patricia M. Harter, Ph.D.
Neil P. Jampolis, B.F.A.
Michael S. McLain, Ph.D.
Dunya Ramilova, M.F.A.
Richard S. Rose, M.F.A.
Mel Shapiro, M.F.A.
Carol F. Sorgenfrei, Ph.D.
José Luis Valenzuela, B.A.
Edit Villarreal, M.F.A.
William D. Ward, M.F.A.

Professors Emeriti
John R. Cauble, M.A.
Donald B. Crabs, M.A.
Henry Goodman, Ph.D.
Robert H. Hethmon, Ph.D.
John H. Jones, M.A.
Joanne T. Mcmaster, M.F.A.
Sylvia E. Moss, B.A.
Carl R. Mueller, Ph.D.
Norman F. Welsh, B.A.
William T. Wheatley, Ph.D.
Margaret L. Wilbur, M.F.A.

Lecturers
Dan Belzer
Richard Emmert
Daniel A. Ionazzi, Jr., M.B.A.
Akira Matsui
Thomas J. Orth

Adjunct Associate Professors
Nicholas Gunn
Joe Oliveri

Adjunct Assistant Professors
Gary Busby
Sandra Caruso, M.A.
Lynn Daily
Nancy Dussault

Tim Miller
Ed Monaghan
Judith Moreland, M.F.A.
Karen Morrow
Jean-Louis Rodrigue
Amen Santo
Paul Wagars

Visiting Professors
Candice Donnelly
Andrew Jackness
Leon Katz, Ph.D.
John Swanbeck

Visiting Associate Professors
Ellen Geer
Salome Jens

Visiting Assistant Professors
Phil Allen
Larry Arrick
David Beaudry
Garr Campbell
Rory Cunningham
Nan Friedman
Milan Gragicevich
Robin Greenwood
Peggy Hickey
Alex Jaeger
Christine Kellogg
Linda Kerns
Nancy Keystone
Jessica Kubransky
William MacDuff
James McDermott
Emily Phillips
Michael Schlitt
Benedict Schoyen
April Shawhan
Bruce Vaughn
Jonathan Wang

Scope and Objectives

UCLA's theater program offers comprehensive training for the profession, as well as serious study of theater's long history and rich literature. Drawing on this vibrant heritage, the curriculum promotes an awareness of theater as a global phenomenon embodying the contributions of diverse cultures and explores theater as a forum for reflecting the human experience as revealed through the dynamics of theater production. With this in mind, students engage in the presentation of dramatic work in a community where creativity and critical thought combine in the exploration of the artistic and intellectual challenges inherent in the making of theater.

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, directing, history and criticism, musical theater, and playwriting, all within the rigorous liberal arts framework of the B.A. degree.

At the graduate level, the M.A. in Theater offers a flexible curriculum of graduate courses that provides a focus in theater scholarship or theater practice. For exceptional students who wish to pursue graduate education, the M.A. offers a foundation in theater history, criticism, or performance studies, or an area of theater practice such as dramatic writing, directing, design, or theater education outreach. Students in the M.F.A. program develop as artists and are given preprofessional training in the skills of theater, while Ph.D. students engage in critical investigations of the art form. In conjunction with their theater studies, students also have the opportunity to pursue elective courses in the area of film and television.

For current or specific information about the programs and faculty members, see http://www.tft.ucla.edu.

Undergraduate Study

Theater B.A.

The Bachelor of Arts degree provides a liberal education and preprofessional training in a comprehensive program that combines the study of the arts, humanities, and sciences with exploration of the principal areas of theater practice — acting, design, directing, the history and criticism of theater and drama, musical theater, and playwriting. The program is designed to ensure that students graduate with a sound humanistic and experiential base for further pursuits in education and in life beyond the University.

The Theater B.A. provides a liberal education by combining critical study of theater with experiential practice in one or more of its component parts. Students explore acting, design, directing, 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 choose from an array of advanced elective courses in acting, design and production, directing, musical theater, playwriting, theater history, criticism, dramatic literature, and performance.

The acting electives include fundamental and advanced courses in all aspects of performance training that prepare students for careers in performance. There is some performance in projects, but emphasis is on class and studio work. Upper division advanced courses explore verse, scene study, comedy, cabaret, movement, and combat.

The design and production electives introduce design principles and techniques, while Ph.D. students engage in critical investigations of the art form. In conjunction with their theater studies, students also have the opportunity to pursue elective courses in the area of film and television.

For current or specific information about the programs and faculty members, see http://www.tft.ucla.edu.
The directing electives explore the basic theories of play direction, as well as text analysis and craft fundamentals. Advanced courses emphasize psychological aspects of director-actor communication and development of specific directorial and production styles.

The Ray Bolger Musical Theater Program electives train selected students in acting, singing, and dance for the musical theater and provide knowledge of musical theater history. The dance courses (Theater 1A, 1B, 1C) are open to all freshman Theater majors and must be taken as requisites to be considered for the program. Auditions are held during Spring Quarter of the freshman year. Junior transfer students are also eligible for consideration for admission. Additional courses provide hands-on training with professional artists and a range of performing experiences from workshops to full production.

Preparation for the Major

Required: Theater 11, 12, 13, 14A, 14B, 14C, 15, 50 (must be taken for 4 units total).

The Major

Required: A total of 58 upper division units, including Theater 101A, 101B, 101C, 106, 150 (must be taken for 4 units total), 180, and 34 upper division elective units selected from courses 101 through 199 not otherwise specified as requirements.


Through certain of these required courses, students are responsible for completing specific production assignments related to production activity of the theater curriculum.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees; available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Theater offers Master of Arts (M.A.), Master of Fine Arts (M.F.A.), and Doctor of Philosophy (Ph.D.) degrees in Theater.

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. On receipt of the application the department notifies students of the screening process, which includes submission of a written essay on a topic selected annually by faculty members, letters of recommendation, and an interview and/or audition. Information on the scheduling of the audition/interview is sent to each applicant with the departmental request for supplemental materials. Every applicant must complete the interview portion of the application process. The interview is optional for all students except those wishing to qualify for admission on the basis of their ability in performance. There is a $40 fee for all auditions/ interviews. Applicants may submit materials for consideration in one or more of the following areas: acting, design and production, directing, history and criticism, musical theater, and playwriting.

All entering students are admitted as Theater majors and must audition and interview at the end of their freshman year or beginning of their sophomore year for elective courses in acting, design and production, directing, history and criticism of theater and drama, musical theater, or playwriting.

Preparation for the Major

Required: Theater 11, 12, 13, 14A, 14B, 14C, 15, 50 (must be taken for 4 units total).

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All entering students are admitted as Theater majors and must audition and interview at the end of their freshman year or beginning of their sophomore year for elective courses in acting, design and production, directing, history and criticism of theater and drama, musical theater, or playwriting.
M103C. Origins and Evolution of Chicano Theater. (4) (Same as Chicana and Chicano Studies M103C.) Lecture, three hours. Designed for juniors/seniors. Exploration of development of Chicano theater from its beginning in legends and rituals of ancient Mexico to the work of Luis Valdez (late 1960s).

M103D. Contemporary Chicano Theater: Beginning of the Modern Movement. (4) (Same as Chicana and Chicano Studies M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions which led to emergence of Chicano theater. Letter grading.

M103E. African American Theater History: The Depresssion to the Present. (4) (Same as Afro-American Studies M103E.) Lecture, three hours. Designed for junior/senior music, theater, and American Studies majors. Study in original material for the theater, its preparation and development performed by African American artists in America from the Depression to the present. Letter grading.

103F. Native American Theater. (4) Study of American Indian theater as an evolving art form.


104A-104B-104C. History of American Theater. (4-4-4) Lecture, three hours. Study of history of influence of different cultures, traditions, and technologies on development of theater as a social institution in America. Letter grading. 104A. Revolutionary War to the Civil War. 104B. Civil War to WWI. 104C. WWI to the Present.

Main Currents in Theater. (4) Lecture, three hours. Critical examination of leading theories of theater from 1640 to 1980. May be repeated twice for credit.

105. Main Currents in Theater. (4-4-4) Lecture, three hours. Study of history of influence of different cultures, traditions, and technologies on development of theater as a social institution in America. Letter grading. 104A. Revolutionary War to the Civil War. 104B. Civil War to WWI. 104C. WWI to the Present.


Drama of Diversity. (4) Lecture, three hours. Investigation of diversity in American society as manifested in dramatic works and theatrical presentations. Letter grading.

Special Topics in History and Criticism. (4) Lecture, three hours. Survey of selected topics of diversity in American society as manifested in dramatic works and theatrical presentations. Letter grading.

Selected Topics on History of European Theater from Primitive Times to 1640. (4) Lecture, three hours. Investigation in depth of a selected area of study in theater history from the Greeks to 1640. May be repeated twice for credit.

118. Selected Topics on History of European Theater from 1640 to 1900. (4) Lecture, three hours. Investigation in depth of a selected area of study in theater history from the Renaissance through 1900. May be repeated twice for credit.

11C. Selected Topics on History of European Theater from 1900 to the Present. (4) Lecture, three hours. Investigation in depth of a selected area of study in theater history from the baroque to the present. May be repeated twice for credit.

Interpreting Performance: Examination of Social, Historical, and Cultural Models for Performing Arts. (5) Same as Honors Collegium M154.) Lecture, two hours; discussion, two hours. Examination of how performance is the result of practice and of social, historical, and cultural contexts in which performance traditions have evolved. Atten- dance at appropriate performances of students' choice is required. P/NP or letter grading.

114A-114B-114C. Acting, Voice, and Movement I. (6-6-6) Studio, 14 to 17 hours. Study of beginning acting technique: improvisation, games, and sense memory exercises of action and objective ex- ercises, outline of Stanislavsky system, and develop- ment of voice and movement skills. Letter grading. 114A-114B-114C. Acting, Voice, and Movement II. (6-6-6) Studio, 14 to 17 hours. Development of acting skills through scene study, use of self, and personal- ization. Examination of characterization exercises and their application to contemporary American scenes. Development of speech, voice, and move- ment skills. Letter grading.

Creative Dramatics. (4) Lecture/laboratory. Studies of principles and procedures of improvisation- al approach to drama as done with children from nursery school through high school. Letter grading.

Advanced Creative Dramatics. (2 to 4) Lecture, four hours; other, to be arranged. Practical appli- cation of creative drama process. Exploration of inter- relationships of the arts to traditional disciplines of learning. May be repeated once for credit.

Interactive Theater. (4) Laboratory. Active, problem-solving process of theater exercises and games designed to examine racial stereotypes, sexu- al roles, and modern issues of today. Other, to be arranged. Play that divide members of the campus community, as well as issues which divide the campus from the Los Angeles community. Selected to increase social and political awareness of the more common problems and their application to intellectual development, exercises and games nurture skills and attitudes useful in facilitating discus- sions between actors and audience participants. Use of techniques of sensory awareness, movement, pan- tomime, improvisation, and characterization. Letter grading.


Theater for the Child Audience: Performance. (4) Lecture, two hours; laboratory, four hours. Preparation: audition prior to first class meeting. De- signed to provide opportunity for students to work to- gether as an ensemble, creating through improvisa- tion a theater presentation for a young audience. Em- phasis on testing theoretical concepts through ensemble work, rehearsal, pretesting, and evaluation of an original production for possible presentation out- side the classroom.


Acting, Voice, and Movement Workshops I, II, and III. (2 each) Studio, four to six hours. Study of advanced acting technique, scene study, and develop- ment of voice and movement skills. May be repeat- ed for a maximum of 12 units. Letter grading.

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 history of plays performed in theater, film, and television, with consideration of writing, direction, production, and performance. Over- view of individual contributions in the collaborative ef- fort; examination of dramatic conflicts and their resolutions among these arts. Individual units include participa- tion of leading members of theater, film, and televi- sion professions. May be repeated for a maximum of 6 units. Concurrently scheduled with course CM229.

Fundamentals of Playwriting I. (4) Lecture, three hours; discussion, one hour. Requisite: theatre majors. Designed to stimulate students' creative faculties through preparation and completion of a one-act play. Students' critical faculties stimulated by play analysis and scene exercises in discussion sec- tion.

Fundamentals of Playwriting II. (4) Lecture, three hours plus conference. Requisite: course 130A. Study in original material for the theater, its prepara- tion and development. Designed to give further in- sight into critical and creating aspects of short and full-length plays and guidance in completion of one- act and full-length plays. May be repeated twice for credit.

Writing for American Musical Theater. (4) Lecture/laboratory, three hours. Study of practice and techniques used in writing a libretto for musical the- ater: opening numbers, romance, subplots, and com- edy. May be repeated once for credit.

Manuscript Evaluation for Theater. (4) Lecture, three hours. Requisite: course 130A. Principles and practices in evaluation of manuscripts for theater. May be repeated once for credit.

Script Development Workshops. (4 to 8 each) Lecture, four hours; studio, 24 hours. Guided preparation of a script for production, which focuses on collaborative process between play- right and director, scene work, staged readings, casting, rehearsal, and production. Emphasis on communication, artistic growth, and professional pro- cess. Each course may be taken for a maximum of 8 units. Concurrently scheduled with courses C433A- C433B-C433C Letter grading.

Dance and Singing for Music Theater II. (1-1-1) Studio, five hours. Requisite: courses 1A, 114A, 114B, 114C. Designed for Theater majors. Junior-level course providing interme- diate-level instruction for music theater students' voice training as well as dance and movement techniques. Letter grading.

Dance and Singing for Music Theater III. (1-1-1) Studio, five hours. Requisites: courses 1A, 114A, 114B, 114C, 134A, 134B, 134C. Designed for Theater majors. Senior-level course pro- viding advanced instruction for music theater stu- dents' voice training, as well as dance and movement technique. Letter grading.

Advanced Movement and Combat. (2) Studio/laboratory, three to four hours. Requisite: course 125A. Advanced and contemporary approach to clas- sic and modern movement. Letter grading.


Acting, Voice, and Movement Workshops I, II, and III. (2 each) Studio, four to six hours. Study of advanced acting technique, scene study, and develop- ment of voice and movement skills. May be repeat- ed for a maximum of 12 units. Letter grading.

CM129. Contemporary Topics in Theater: Film, and Television. (2) Same as Film and Television CM129.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of history of plays performed in theater, film, and television, with consideration of writing, direction, production, and performance. Over- view of individual contributions in the collaborative ef- fort; examination of dramatic conflicts and their resolutions among these arts. Individual units include participa- tion of leading members of theater, film, and televi- sion professions. May be repeated for a maximum of 6 units. Concurrently scheduled with course CM229.
136. Advanced Acting for the Stage. (4) Lecture/ laboratory. Requisite: course 123. Study and practice of art of acting, including a progression to more advanced acting problems. May be repeated twice for credit. Concurrent enrollment with same instructor not permitted. Total units for courses 136, 137A, 137B, and 137C may not exceed 12 units. Letter grading.

137A-137B-137C. Continuum Study in Acting for the Stage. (4-4-4) Studio, six hours. Requisite: course 123. Technique of characterization and performance in advanced and complex acting styles. May be repeated once for credit.

138. Special Problems in Performance Techniques. (4) Lecture/laboratory. Study of complex problems in voice, movement, and acting. May be repeated twice for credit.

141A. Lighting Techniques for the Stage. (4) Lecture, three hours; laboratory, four hours. Requisite: course 10. Required of Theater majors. Intensive study of theater lighting, with emphasis on relationship of lighting instruments and control equipment to lighting design. Courses 141A, 140A, and 142A may be taken in any sequence, but not concurrently.

C144A-C144B-C144C. Advanced Sound Design. (4-4-4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C444A-C444B-C444C. Letter grading:

C144A. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, processing, automation, and reproduction of dialogue, effects, and music tracks for theater sound design. May be repeated once for credit. Letter grading.

C144B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of script and score, conceptual development of the design, and multitrack recording techniques to realize the design. May be repeated once for credit.

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 the 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.

145. Costume Design for the Theater. (4) Lecture/ laboratory. Design of costumes for theatrical presen- tations. Study of use of silhouette, fabrics, color, and decoration as related to theatrical characterizations. May be repeated once for credit.

147A. Drafting. (4) Development of visual communi- cation skills through drafting. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

147B. Rendering. (4) Introductory course in basic skills necessary for drawing and rendering for scenic, costume, and lighting design for theater, film, and television. May be repeated once for credit. Letter grading.

148. Special Courses in Design and Technical Theater. (4) Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit.

149. Introduction to Design. (4) Lecture, three hours. Exploration of interpretation of drama through design, including study of styles and techniques of design, composition of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Investigation of techniques for realization of designs in production. Letter grading.

150. Theater Production and Performance. (1 to 2) Laboratory, three to six hours. Requisite: course 50. Laboratory experience in various aspects of theater production, including design, set and costume construction, stage management, member of a crew, or assignment as designer or assistant on a production. May be repeated for a maximum of 8 units. Letter grading.

151A-151B. Scenic Design. (4-4) Lecture/studio. Requisites: courses 14A, 14B, 14C. Introduction to principles of study and practice of the design of scenic for theater, film, and television. Imaginatization as im- petus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of the design. Letter grading.


153A. Impagination as impetus for design, text analy- sis, metaphor, and conceptualization. Investigation of design research process and character analysis lead- ing to visual presentation of the design. Letter grading.

C153B. Costume Design. (4-4) Lecture/studio. Study of costume design for period productions, develop- ment of conceptual designs, and costume design for music theater.


154A. Study of recording, editing, and playback of sound effects, voice, and music in the theater. Letter grading.

154B. Introduction to use of delay, equalization, and microphone placement for theater sound reinforce- ment. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. Letter grading.


C155A-C155H. Graphic Representation of Design. (2 each) Studio. Concurrently scheduled with courses C455A-C455H. Letter grading:

C155A. Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study of use of pencil and pen to communicate scenic designs, in- cluding one- and two-paint perspective, form light, shade, and texture on a two-dimensional surface.

C155B. Watercolor Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of watercolor techniques as they relate to interpretation of scenic designs, including painting of brick, wood, stone, fab- rics, and other surfaces. Letter grading.

C155C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

C155D. Model Making. (2) Studio, four hours. Requi- site: course 147A or 147B. Study of the model for rep- resentation of scenic designs from initial working prototy- pes to finished model. Use of wide variety of materials and techniques for execution of the mod- el. Letter grading.

155E. Life Drawing. (2) Studio, four hours. Requi- site: course 147A or 147B. Study of techniques and practice in drawing of human form. Letter grading.

155F. Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Letter grading.

155G. Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of sce- nic painting techniques and materials and their reali- zation of color design and elevations. May be repeat- ed once for credit. Letter grading.

155H. 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 for a maximum of 4 units. Letter grading.

156A. Introduction to Computer-Assisted Drafting. (2) Studio, four hours. Requisite: course 147A or 147B. Study of computer-assisted design for theater, film, and television. Introduction to computer drafting, drawing and editing techniques, drawing floor plans, and elevation drawings. Concurrently scheduled with course C456A. Letter grading.

156B. Introduction to Computer-Assisted Design. (2) Studio, four hours. Requisite: course 147A or 147B. Study of computer-assisted design for the- ater, film, and television. Investigation of computer-assisted design techniques, including lighting de- signs, use of symbol libraries, and pictorial. Introduc- tion to computer-assisted drafting. Concurrently scheduled with course C456B. Letter grading.


160. Fundamentals of Play Direction. (5) Lecture, two hours; laboratory, four hours. Required of Theater majors. Course 121 may be taken concurrently. Basic theories of play direction and their application through preparation of scenes under rehearsal conditions.


163A. (4) Lecture/studio. Requisite: course 15. Intensive development of primary directing skills and process, including text analysis and exploration of craft fundamentals as a basis for director/actor communication and effective staging. Students experience scenes from plays under laboratory conditions. Letter grading.


C163D. Directing Project for the 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) Laborato- ry, eight hours; classes 14A, 14B, 14C. Experience as stage manager or designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs, or stage management. Projects repeated for a maximum of 8 units. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) Hours to be arranged. Creative participation as actor or stage manager in public presentation of departmental productions. May be taken for a maximum of 4 units.

171B. Advanced Theater Laboratory. (1 to 4) Hours to be arranged. Creative participation in realization of production elements related to public presentation of departmental productions. May be taken for a maximum of 4 units.

172. Technical Theater Laboratory. (2) Hours to be arranged. Required of Theater majors. Laboratory in various aspects of theater production. Must be repeated for a maximum of 8 units, but no assignment may be repeated more than once. Concurrently scheduled with courses C272 and C472.

173A. Design Assignment: Assistant Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as an assistant designer, including preparation and realization of scenic, lighting, costume, sound or sound designs. May be repeated twice. Let- ter grading.

173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as a designer, including preparation and realization of scenic, lighting, costume, sound or sound designs. May be repeated twice. Let- ter grading.


174B. Project in Stage Management. (3) Studio, nine hours. Requisites: laboratory experience in the professional duties of assistant stage manager, including participation as an assistant stage manager in preproduction, rehearsal, and performance phases of a production. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 12 hours. Requisite: course 174A. Laboratory experience in the professional duties of stage manager, including participation as a stage manager in preproduc- tion, rehearsal, and performance phases of a production. Problems of unions, auditions, organization, scheduling, and responsibilities of a lengthy run. May be repeated once for credit. Letter grading.

175A-175D. Summer Theater Workshops. (4 or 8 each) Lecture. Participation in production and performance of full-length plays for general public. Offered in summer only. Letter grading. 175A-175B. Practice in and observation of production of a summer theater company. 175C-175D. Specialization in technical theater.


M178. Film and Television Acting Workshop. (2) (Same as Film and Television M177.) Laboratory, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles to which performers may need to adjust. Rehearsals with director, (2) single-camera experience, and (3) multi- ple-camera experience. May be repeated twice for credit. Letter grading.

180. Senior Project. (4) Lecture/studio, three hours. Requisites: courses 101A, 101B, 101C. Preparation of a conceptual or creative project to provide a culmi- nating experience in the production of a creative or research work. Letter grading.

C190A. Role of Producer in Professional Theater. (2) Study of structure governing economic and artistic decision-making processes in professional theater of America. Concurrently scheduled with course C294A. C190B. Role of Management in Educational and Community Theater. (2) Study of theatrical production and economic criteria in administration of educational and community theater. Concurrently scheduled with course C294B.

191. The Touring Company. (2 to 12) Lecture, 20 hours; laboratory, 22 hours. Rehearsal and technical preparation of a theatrical work for touring and perform- ance of that work on tour.

192. Motion Picture, Television, and Theater Inter- nship. (2, 4, or 6) Field experience, 16, or 24 hours; individual conferences, to be arranged. Limited to senior Theater majors. Internship at various studios or theaters accentuating creative contrib- ution to organization, administration, or production in various capacities. May be taken for a maximum of 8 units.

M193. Art Alive: Art and Improvisation in the Mu- seum. (4) Same as Honors Collegium M116.) Seminar, four hours. Offered in collaboration with the Los Angeles County Museum of Art (LACMA). Interpretation of art in the collection through acting, dialogues, movement, and music. Research into history and art history and production of a creative performance piece required. P/NP or letter grading.

199. Special Studies in Theater Arts. (2 to 8) Tuto- rial, to be arranged. Preparation: 3.0 grade-point aver- age in major. Limited to seniors. May be taken for a maximum of 8 units.

Graduate Courses

202A. Seminar: Western Classical Theater. (4) Discussion, three hours. Designed for graduate students. Examination of theatrical production and dramatic form in the Greek and Roman periods. May be repeated twice for credit.

202B. Seminar: Medieval Theater. (4) Discussion, three hours. Designed for graduate students. May be repeated twice for credit.

202C. Seminar: Renaissance and Baroque Thea- ter. (4) Discussion, three hours. Designed for grad- uate students. Students studied in theater architecture, theatrical production, and dramatic form in En- gland and Continental theater from 1485 to the early 18th century. May be repeated twice for credit.

202D. Seminar: Bourgeois and Romantic Theater. (4) Discussion, three hours. Designed for graduate students. Students studied in theater architecture, theatrical production, and dramatic form in English and Continental theater from 1700 to 1870. May be repeated twice for credit.

202E. Seminar: Modern Consciousness in Thea- ter. (4) Discussion, three hours. Designed for gradu- ate students. Study of prototypes of modern experi- ence as encountered in the work of Ibsen and Strindberg. May be repeated twice for credit.

202F. Seminar: Modern Realism. (4) Discussion, three hours. Designed for graduate students. Select- ed studies of theater’s response to science and technol- ogy, politics, and revolution. May be repeated twice for credit.

202G. Seminar: Modern Theatricalism. (4) Discus- sion, three hours. Designed for graduate students. Selected studies in symbolism and avant-garde thea- ter. Exploration of dream experience and private psyche, religious experience, and revitalization of myth and ritual. May be repeated twice for credit.

202M. Seminar: American Theater. (4) Discussion, three hours. Designed for graduate students. Select- ed studies in development of theatrical production and dramatic writing in American theater. May be repeated twice for credit.

202N. Seminar: Traditions of African Theater. (4) Discussion, three hours. Designed for graduate students. Selected studies of traditional theater forms such as those indigenous to Ghana, Nigeria, and oth- er African nations and the African diaspora (Haiti, Jamaicas, and other areas of the Caribbean) through examina- tion of character, structure, performance modes, and archetypes. May be repeated twice for credit.

202R. Seminar: East Asian Theater. (4) Discus- sion, three hours. Designed for graduate students. Selected topics in theater forms of East Asia, includ- ing dramatic literature, costume, theater spaces, and critical writings. May be repeated twice for credit.

202S. Seminar: South Asian Theater. (4) Discus- sion, three hours. Designed for graduate students. Selected topics in theater forms of South Asia, includ- ing dramatic literature, costume, theater spaces, and critical writings. May be repeated twice for credit.

202T. Seminar: Southeast Asian Theater. (4) Discus- sion, three hours. Designed for graduate students. Selected topics in theater forms of Southeast Asia, includ- ing dramatic literature, costume, theater spaces, and critical writings. May be repeated twice for credit.

203. Theater Ethics and Issues. (5) Seminar, four hours. Designed for graduate students. Investigation of a selected area of theater and drama study that ex- plores significant issues and ethical considerations of the modern world. May be repeated four times for credit.

204. Theater Genres. (5) Seminar, four hours. Designed for graduate students. Investigation of history and literature of the theater as manifested in one or more of its major forms or genres. May be repeated four times for credit.
of structural strategies, political implications, and historical issues that have shaped contemporary full-length plays leading to the guidance and analysis of student-written one-act plays.

208C. Practicum in Dramaturgy. (2 to 12) Laboratory, four hours; seminar, one hour. Demonstrates the competence in practice of dramaturgy through completion of approved dramaturgical assignment. May be repeated for a maximum of 12 units. Letter grading.

209. Theater Authors. (5) Designed for graduate students. Investigation of work of a theater artist from history of world theater, with special emphasis on relationship to time in which the work was generated. May be repeated four times for credit.

210. Topics in World Theater and Drama. (5) Designed for graduate students. Investigation of selected topics in world theater, drama, production, and architecture. May be repeated four times for credit.


220. Graduate Forum. (1) Seminar, two hours bi-monthly or five hours per term. Limited to graduate theater students. Presentation and discussion of issues informing and affecting contemporary theater. May be repeated four times for credit. S/U grading.

229. Contemporary Topics in Theater, Film, and Television. Lecture, one to four hours; studio, one to six 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 to the collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation in planning and directing of leading members of theater, film, and television professions. May be repeated for a maximum of 6 units. Concurrently scheduled with course CM129.

230A-230B-230C. One-Act Play. Analysis of strategy and dramatic structure of selected contemporary short plays leading to the 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 the guided completion and critique of a student-written full-length play. 230C. Performance and Text. Exploration of structural strategies, political implications, and technical execution of selected contemporary American plays leading to the 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 constructive study of dramatic techniques as employed by playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit.


243A-243B-243C. Scenic Design. (4-4-4) Advanced study and practice in scenic design for the theater. Imaginative as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of the design. May be repeated once for credit.

244A-244B. Advanced Theater Production. (2 to 8 each) Studio, 12 to 24 hours. Designed for graduate students. Emphasis on integration and planning and preparation of a theatrical production. Each course may be taken for a maximum of 8 units. Letter grading.

245A. Production Management. (4) Lecture, three hours. Study in production management for the theater. Examination of professional duties of production manager, including preproduction, rehearsal, and performance phases of a production. Problems of resource management, unions, organization, scheduling, and budgeting while maintaining a creative and collaborative environment. Letter grading.

245B. Production Management. (4) Lecture, three hours. Requisite: course 245A. Advanced study in production management for the theater, with focus on planning process of professional production manager in a seasonal and repertory environment. Problems of resource allocation, unions, organizational structure, scheduling, and budgeting. Letter grading.


246C. History of Costume. (4-4-4) Lecture/studio. Designed for graduate students. Study of history of costume as a manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for the theater, film, and television. Historic survey and in-depth exploration of a selected period, with study of influences of diverse cultures. Letter grading.

246D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for the theater, film, and television. Historic survey and in-depth exploration of a selected period, with study of influences of diverse cultures. Letter grading.

261. 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.

263. Production Project in Direction for the Stage. (2 to 8) Discussion, one hour; studio, 12 to 30 hours. Designed for graduate students. Directing of a dramatic work, with discussion and critique of work in progress. May be repeated for a maximum of 20 units. Letter grading.

263D. Directing Project for the 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.

264. Directing Classical and Historical Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Problems in interpretation and direction of historical or classical drama through medium of laboratory scene work. Letter grading.

265. Modern Theories of Production. (4) Examination of modern theories of production from emergence of the director in the 19th century to the present. Investigation of different responses to problems of creating a vital theatrical event in context of ongoing evolution of theater as an art form. Examination of contribution of significant directors and movements; relation between theater and other forms of representation. Letter grading.

266. Theatrical Conceptualization. (4) 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 stimulus for theatrical conceptualization, with focus on collaborative aspect of theatrical production. Letter grading.

272. Production and Performance Laboratory. (2) Lecture, three hours; laboratory, to be arranged. Designed for graduate students. Credit for creative production assignments required of all M.A. students during first three terms in residence. May be repeated twice for credit. Concurrently scheduled with courses C172 and C472.

290A. Role of Management in Artistic Decision Making in the Theater. (4) Discussion, four hours. Descriptive study of criteria for decision making in artistic institutions, including decision making in society, economic environment of the arts, and artistic value systems of arts organizations. S/U or letter grading.

290B. Programming and Planning Policies in the Theater. (4) Analysis of social, artistic, and economic roles of the arts as reflected in programming policy. Examination of social goals pursued in establishing relationships between the arts and their environment. C294A. Artistic Control of Theatrical Production by Professional Producer. (2) Designed for graduate students. Credit for creative production assignments required of all M.A. students during first three terms in residence. May be repeated twice for credit. Concurrently scheduled with courses C172 and C472.

290C. History of Costume. (4-4-4) Lecture/studio. Designed for graduate students. Study of history of costume as a manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for the theater, film, and television. Historic survey and in-depth exploration of a selected period, with study of influences of diverse cultures. Letter grading.

290D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for the theater, film, and television. Historic survey and in-depth exploration of a selected period, with study of influences of diverse cultures. Letter grading.

294A. Contemporary Theories of Art and Theater to the Present. Lecture, four hours; studio, 30 hours. Designed for graduate students. Study of contemporary theories of art and theories of the theater. May be repeated for a maximum of 4 units. S/U or letter grading.

298A-298B. Special Studies in Theater Arts. (2 to 4 each) Lecture/discussion. Designed for graduate students. Seminar study of problems in theater arts, organized on topic basis. May be repeated once for credit.
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel emphasis. Designed as teaching assistant, art, music, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

420A-420B-420C. Advanced Acting I. (4 to 8-4-4) Studio, six to 18 hours. Letter grading.

420A. Development of an internal technique, beginning with an autobiography which is a dramatization of one’s personal history. Scene work follows, with emphasis on stage directions, improvisations capturing the circumstances, life of the character, and intentions of the scene.

420B. Scene work, usually from 20 to 30 minutes in length. Continuation of work on off-stage preparation, with further development of how the actor goes about doing research and fieldwork on the character being played.

420C. Development of an external technique through comedy and of skits, improvisation, physical humor, delivery of a line, rhythm, timing, and public cabaret. Fusion of the internal, use of action and objective with the external.

421A-421B-421C. Advanced Acting II. (4 or 8 each) Studio/laboratory, six to 18 hours. Letter grading.


421B. Continued character behavior study through language and movement. Further work on actions, objectives, and researching the role. 421C. Comedy workshop. Exploration of craft of comedy and development of cabaret pieces.


424A-424B-424C. Advanced Voice and Speech I. (2 or 4 each) Studio/laboratory, three to six hours. Development of voice and speech techniques for the 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.


425A-425B-425C. Advanced Movement I. (2 or 4 each) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free the total instrument. Development of a flexible actor with range, expression, and confidence physically. Awakening of the imagination while exploring the worlds of ritual, animal, conceptual, and modern dance movements. Letter grading.

425D-425E-425F. Advanced Movement II. (2 or 4 each) Studio/laboratory, three to six hours. Presentation of a more complete picture of stage movement and its relationship to theater, music, and dance. Advancement of physical training of individual actors to their maximum potential. Experience in techniques and discovery of origins of a variety of acrobatic and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.

429. Performance Workshop. (2) Studio, four hours. Limited to graduate students not enrolled in M.F.A. acting program. Focus in performance techniques, including autodrama and scene study. Development of performance skills through scene study, use of self, and personalization. Examination of characterizations exercises and their application to scenes. Letter grading.

430A-430B-430C. Advanced Studies in Playwriting. (4 to 8 each) Lecture, three hours. Limited to M.F.A. playwriting program students. Guided completion of full-length scripts for the stage.

431. Special Topics in Playwriting. (4) Discussion, three hours. Designed for M.F.A. playwriting program students. Analysis and practice of varied aspects of playwriting. Variable content selected from topics such as comedy writing, docudrama, writing for alternative audiences, adaptation from stage to screen, children’s theater, or improvisational techniques. May be repeated twice for credit.


433A-C433B-C433C. Script Development Workshops. (4 to 8 each) Lecture, four hours; studio, 24 hours. Designed for graduate students. Guided preparation of a script for production, with focus on collaborative work between playwright and director, scene stage, staged readings, casting, rehearsal, and production. Emphasis on communication, artistic growth and professionalism. Each course may be taken for a maximum of 8 units. Concurrently scheduled with courses C133A-C133B-C133C. Letter grading.


441A-441B-441C. Lighting Design. (4-4-4) Lecture/ studio. Letter grading.

441A. Study and practice in lighting the actor, emphasizing textual and character analysis from lighting designer’s point of view. Development of the director’s design from the actor’s perspective. Lighting design for stage and media. Letter grading.

441B. Use of light and color to define space, effect of light on scenery and costumes, lighting for a thrust seats theater, multispace productions, lighting patterns, and moving scenery. May be repeated once for credit.

441C. Investigation of lighting design in production, musical, and other theatrical contexts. Study of analysis of script and score for lighting designer. May be repeated once for credit.

441D. Scenic Projection and Media Techniques. (4) Lecture/laboratory. Designed for graduate students. Emphasis on dynamic effects of stage, use of color in light, and relationship of lighting designer to the actor. May be repeated once for credit.

441E. Scenic Projection and Media Techniques. (4) Lecture/laboratory. Designed for graduate students. Emphasis on dynamic effects of stage, use of color in light, and relationship of lighting designer to the actor. May be repeated once for credit.

443. Problems in Design. (2 or 4) Lecture/laboratory, four hours. Additional hours as required. Study and practice in design techniques for theater. May be repeated for a maximum of 12 units.

444A-444B-444C. Advanced Sound Design. (4-4-4) Lecture, four hours; studio, four hours. Concurrently scheduled with courses C144A-C144B-C144C. Letter grading.

444A. 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 theaters and design. May be repeated once for credit. Letter grading.

444B. Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on an understanding of script and score, conceptual development of the design, and multitrack recording techniques to realize the design. May be repeated once for credit. Letter grading.

444C. 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 the 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.


454C. Sound for Film and Television. (4) Lecture/ studio. 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 a higher level of proficiency and skill. Letter grading.


455A. Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-point perspective, form light, shade, and textures. Graduate students expected to produce drawings demonstrating a higher level of proficiency and skill. Letter grading.

455B. Watercolor Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of watercolor techniques as they relate to interpretation of scenic design. Includes painting of tone, forms, fabrics, and other surfaces. Graduate students expected to produce drawings demonstrating a higher level of proficiency and skill. Letter grading.

455C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

455D. Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

455E. Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

455F. Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Letter grading.

455G. Scene Painting Techniques. (2) Studio. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

444A. Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on an understanding of script and score, conceptual development of the design, and multitrack recording techniques to realize the design. May be repeated once for credit. Letter grading.

444B. Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on an understanding of script and score, conceptual development of the design, and multitrack recording techniques to realize the design. 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 for a maximum of 4 units. Letter grading.

C456A. Introduction to Computer-Assisted Drafting. (2) Studio, four hours. Requisite: course 147A or 147B. Study of computer-assisted design for theater, film, and television. Introduction to computer drafting, drawing and editing techniques, drawing floor plans, and elevation drawings. Concurrently scheduled with course C156A. Letter grading.

C456B. Introduction to Computer-Assisted Design. (2) Studio, four hours. Requisite: course 147A or 147B. Study of computer-assisted design for theater, film, and television. Investigation of computer-assisted design techniques, including lighting design, use of symbol libraries, and pictorial. Introduction to computer-assisted drafting. Concurrently scheduled with course C156B. Letter grading.


C457A-C457B-C457C. Costume Construction Techniques. (2-3-2) Studio, four hours. Study of theory and application of drafting, pattern making, fitting, and construction techniques for period costumes and undergarments to achieve an authentic-appearing costume using contemporary methods. Concurrently scheduled with courses C157A-C157B-C157C.


459A-459B-459C. Practicum and Practice in Teaching Theater. (2-2-9) Seminar, to be arranged; discussion, two hours. Limited to Ph.D. students. Study and practice in preparation and performance of dramatic works for public performances as a contributing artistic member of a departmental production. Creative responsibility includes designer, technical supervisor, production manager, choreographer, or dramaturge. May be repeated for a maximum of 16 units. Letter grading.

495A-495B-495C. Practicum and Practice in Dramatic Presentation. (2-2-9) Seminar, to be arranged; discussion, two hours. Limited to Ph.D. students. Orientation and preparation of graduate (Ph.D.) students who have responsibility to assist in teaching undergraduate courses in department. Discussion of problems common to the teaching experience. Letter grading.

499. Professional Internship in Theater, Film, and Television. (4, 8, or 12) Full- or part-time at a studio or on a professional project. Designed for advanced M.F.A. students. Internship at various film, television, or theater facilities accentuating creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be arranged. May be repeated for a maximum of 12 units. S/U grading.

499A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. Letter grading.


Related Courses

Classics
143A. Ancient Traedy
143B. Ancient Comedy

Comparative Literature
1A, 1B, 1C. World Literature

English
10A, 10B, 10C. English Literature
90. Shakespeare
112. Children’s Literature
135. Creative Writing: Drama
167. Drama, 1842 to 1945

Film and Television (Film, Television, and Digital Media)

126. Acting for Film and Television
M177. Film and Television Acting Workshop

Italian
122. Italian Theater

Music History (Musicology)
135A-135B-135C. History of Opera

World Arts and Cultures
171. Lighting Design for Dance Theater
172. Costume and Scenic Design Concepts for Dance Theater

Urban Planning

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Anastasia Loukaitou-Sideris, Ph.D., Chair

Professors
Randall Crane, Ph.D.
Dana Cuff, Ph.D.
J. Eugene Griegsby III, Ph.D.
Susanna B. Hecht, Ph.D.
Shirley Hune, Ph.D.
Jacqueline Leavitt, Ph.D.
Robin Liggett, Ph.D.
Abel Valenzuela, Jr., Ph.D.

Associate Professors
Leobardo Estrada, Ph.D.
Brian D. Taylor, Ph.D.
Abel Valenzuela, Jr., Ph.D.
Scope and Objectives
The professional urban planner works on the creation and management of the urban environment, including its physical, economic, and social elements. Housing, transportation, air and water quality, the preservation of historic communities, and the development of community-level economic and employment programs are some of the tasks undertaken by recent graduates of the UCLA Department of Urban Planning. Graduates have taken positions in local, state, and national governments, and increasingly with nonprofit and private companies whose products and services affect the urban environment. While most UCLA graduates find positions in the U.S., the program offers the opportunity to specialize in development planning abroad, including rural development, and many graduates have found positions in Latin America, Africa, and Asia.

The program offers a two-year Master of Arts degree and a Ph.D. degree. Concurrent degree programs allow students to combine study for an M.A. in Urban Planning with work toward an M.B.A. in the John E. Anderson School of Management, a J.D. in the School of Law, an M.Arch. I in the Department of Architecture and Urban Design, or an M.A. in Latin American Studies.

The department takes pride in its collegial atmosphere. It features a lively mix of students from diverse academic backgrounds, drawn from many foreign countries and from every avenue of American life. It includes many members of racial and ethnic minority groups, and more than half the students are women. Student organizations provide an interesting program of extracurricular activities.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Urban Planning. Four concurrent degree programs (Urban Planning M.A./Law J.D., and Urban Planning M.A./Management M.B.A.) are also offered.

Urban Planning
Lower Division Course
88. Lower Division Seminar: Special Topics in Urban Planning. (4) Seminar; three hours; outside study; nine hours. Require: satisfaction of Subject A requirement. Variable topics seminar which examines specific issues or problems and ways that professionalism in urban planning approach study of them. Students define, prepare, and present their own research projects with guidance of a professional school faculty member. Letter grading.

Upper Division Courses
M121. Issues in Latina/Latino Poverty. (4) (Same as Chicana and Chicano Studies M121.) Lecture, three hours. Examination of issues of poverty confronting Latina/Latino population in the U.S. Special emphasis on antipoverty policies of government and nonprofit organizations and on social planning and economic development strategies. Attention also to literature on the underclass. Letter grading.

M122. Planning Issues in Latina/Latino Communities. (4) (Same as Chicana and Chicano Studies M122.) Lecture, three hours. Exploration of socio-economic, demographic, and political forces that shape low-income communities and analyses of planning intervention strategies. Emphasis on community and economic development and environmental equity. Letter grading.


M149. Transportation Geography. (4) (Same as Geography M149.) Study of geographical aspects of transportation, focusing on characteristics and functions of the various modes and on complexities of intra-urban transport.

C184. Looking at Los Angeles. (4) Discussion, three hours. Introduction to physical form and history of Los Angeles, with emphasis on visual observation of the city as a skill for architects and planners. Field trips throughout the city. Concurrently scheduled with course C284. Letter grading.

187. Planning for Minority Communities. (4) (Formerly numbered 197.) Lecture, three hours. Introduc- tion to inner-city policy issues on three separate lev- els: (1) each student develops a comprehensive inner-city urban program using materials from Alternatives Inner-City Future Exercise, (2) each student is expect- ed to identify value assumptions and theories of social justice implicit or explicit in alternative intervention pro- grams, and (3) each student is expected to participate in class discussions that emphasize minority issues which affect implementation. P/NP or letter grading.

CM189. Environmentalism: Past, Present, and Future. (4 to 6) (Same as Geography M115.) Discussion, three hours; optional field study, five to 10 hours. Exploration of history, politics, and theories of environmental movements, dynamics of race, class, and gender in relation to environmental agendas, and poten- tial role of environmentalism in reshaping our soci- ety. Readings, discussion, and research papers. Offered annually as a graduate research seminar and biannually as an undergraduate upper division lecture and field studies program. Concurrently scheduled with course C268. P/NP or letter grading.

M190. Human Environment: Introduction to Architecture and Urban Planning. (4) (Same as Architecture and Urban Design M190.) Lecture, three hours; outside study, nine hours. Kinds of problems that arise in creating and maintaining an environment for urban activities, and approaches and methods of archi- tecture and urban planning in helping to cope with such problems. Complexities involved in giving ex- pression to human needs and desires in provision of shelters and movement systems, to possibilities and limitations of technology and building forms, and to is- sues involved in relating the human-material to the natu- ral environment. Students encouraged to compre- hend major urban issues both as citizens and as po- tential technical experts.

191. Introduction to Cities and Planning. (4) Survey of urban history and evolution in the U.S., urban social theory, current growth trends, system of cities, urban economy and economic restructuring, tradition- al and alternative location theories, urban transporta- tion, and residential location and segregation. P/NP or letter grading.

192. Urban Policy and Planning. (4) Examination of current urban planning and policy issues and de- bates, such as normative theories of good urban form, metropolitan organization and governance, eco- nomic development and growth management, edge cities, spatial mismatch hypothesis, urban poverty, ra- cial/cultural equity, gender and urban structure, sustainability, and future of cities. P/NP or letter grad- ing.

193. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of a particular planning/policy subfield (e.g., economic development, environmental planning, housing and community development, international planning and development, land use, or urban design) in some depth. Specific topics are decided depending on instructor. May be re- peated for credit with topic change. P/NP or letter grading.

M194. Women and the City. (4) (Same as Women’s Studies M194.) Lecture, three hours. Examination of relationship between women and cities: (1) how cities have affected women’s opportunities for economic and social equality, (2) women’s contributions to de- velopment of U.S. cities, and (3) contemporary strate- gies and efforts to create urban environments that re- flect women’s needs and interests. P/NP or letter grading.

M195. Policy, Planning, and Community. (4) (Same as Asian American Studies M108.) Lecture, three hours; field laboratory. Project-oriented method course on conducting needs assessment in Asian American communities. Geographic information systems to be used to define problems and needs. Letter grading.

C196. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional econo- my, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of con- flicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Concurrently scheduled with course C237C. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be ar- ranged. Independent research or investigation on a selected topic to be arranged with a faculty member. May be repeated for credit.
Graduate Courses

M201. Theories of Architecture. (4) (Same as Architecture and Urban Design M201.) Lecture, three hours. Hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding the nature of speculative inquiry in an architectural context. Letter grading.

M202A. Public Control of Land Development. (3 to 6) (Same as Law M286.) Lecture, three hours. Analysis of legal and constitutional constraints on land-use planning and development; administrative and environmental regulatory processes, including relationship between land and planning, formulating land-use legislation, zoning, subdivision controls, eminent domain, taxation, urban development, environmental law, and negotiation. Theory and doctrine applied to case studies; research project/paper and/or examination required.

M202C. Seminar: Urban Affairs. (3 to 6) (Same as Law M526.) Seminar, two hours; two field trips. Consideration of selected aspects of housing law and policy, including current federal and state housing subsidies; rental and owner-occupied consumers; impacts of market discrimination against children, racial minorities, and women; and local governmental laws influencing cost and supply, such as antipollution and rent control legislation. Development of fundamental skills of graphic ideation and communication. Letter grading.

M204. Research Design and Methods for Social Policy. (4) (Same as Policy Studies M218.) Lecture, three hours; one hour. Preparation: outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, including ethnography, interviewing, and survey design. Letter grading.


M206A. Introduction to Geographic Information Systems. (4) (Same as Policy Studies M224A.) Lecture, three hours; laboratory, one hour. Preparation: one graduate-level statistics course, familiarity with one of the packaged statistics programs, Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address a planning problem. Letter grading.

M206B. Advanced Geographic Information Systems. (4) (Same as Policy Studies M224B.) Lecture, four hours; laboratory, four hours. Preparation: course M206A or Policy Studies M224A. Principles and skills of geographic analysis and modeling; managing, processing, and interpreting spatial data. Especially useful for students interested in environmental, demographic, suitability, and transportation-related research. Seminar (ArcInfo, AutoCAD, GIS, QGIS, and professional space, modeling, and virtual reality; file formats; modeling, rendering, and animation programs; video conference. Letter grading.

207. Public Resource Allocation. (4) Lecture, three hours. Preparation: passing score in microeconomics examination of first day of class. Practical use of economics in analyzing public resource allocation problems. Topics include review of marginal analysis, difference between productive and efficient public goods and free rider problem, environmental pricing, public service pricing, and conflicts between individuals and collective rationality.


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.

210A. Introduction to Planning Theory. (4) Lecture, three hours. Historical introduction to major ideas and theories of planning which have influenced its development from the early 19th century to the present. Letter grading.

210B. Comparative History of Planning Practice. (4) Lecture, three hours. Limited to Ph.D. and advanced M.A. students. Examination of history and historical method in planning through group discussion, oral presentations, and written assignments. Organization of course into three parts to develop critical historical skills: historiography and historical methods, critique of planning histories of Los Angeles, and writing of urban histories. S/U or letter grading.

210C. Colloquium in Planning Theory. (4) Lecture, one hour; discussion, two hours. Required: course 210A. Limited to Ph.D. students. Introduction to some central theoretical issues of contemporary planning.

211. Law and the Quality of Urban Life. (4) Lecture, three hours. Introduction to law as an urban system, directed primarily toward those interested in intersection of law and policy: broad array of urban issues examined, as is law's role as a partial cause and cure of urban problems. Examination of law as a changing process rather than a collection of principles, so that students develop facility to interact with law and lawyers in a positive and forceful manner.

212. International/Comparative Planning Workshops. (4) Discussion, 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, land use, environmental issues, transportation, infrastructure planning, housing development, community development, and/or physical planning. May be repeated for credit. Letter grading.


218. Graphics and Urban Information. (4) Lecture, two hours; studio, one hour. Presentation of basic graphic methods and tools for conceptualization, analysis, and documentation of the built environment. Development of fundamental skills of graphic ideation and communication. Letter grading.

219. Special Topics in the Built Environment. (4) Lecture, three hours. Topics in the built environment selected by faculty members. May be repeated for credit. S/U or letter grading.

220A. Quantitative Analysis in Urban Planning I. (4) Lecture, three hours. Preparation: passing score on basic mathematics proficiency examination given first day of class. Introduction to statistical and computational methods and problems using applications in urban planning. Review of basic mathematical concepts fundamental to planning methods; linear and nonlinear functions, graphing growth curves and mathematics of finance; data measurement and display; descriptive statistics and probability. Introduction to use of computer as a tool in analysis of planning-related data.

220B. Quantitative Analysis in Urban Planning II. (4) Lecture, three hours. Required: course 220A or equivalent as demonstrated by passing score on mathematics proficiency examination given first day of course 220A. Introduction to concepts of statistical inference and modeling, with emphasis on urban planning applications. Topics include sampling, hypothesis testing, analysis of variance, correlation, and simple and multiple regression. Use of computer as a tool in statistical analysis and modeling.


222. Introduction to Histories and Theories of Urban Planning. (4) Lecture, 90 minutes; discussion, 90 minutes. Exploration of planning thought and practice over time, leading authors and key issues in field of planning, traditional and insurgent histories of planning, and alternative approaches to planning for multiple and pluralistic publics. General taken Fall Quarter of first year of M.A. program. Letter grading.

223. Professional Development Seminar. (4) Seminar, 90 minutes; discussion, 90 minutes. Required: preparation: course 222. Problems of planning practice. Development of methods which integrate theory and practice through readings and individual and collective analyses of each student's fieldwork experience. Students must be working in a field setting to enroll. Job fair held at end of Fall Quarter to place students in field settings. Students combine course 223 with one term of course 496 to meet fieldwork requirement. Letter grading.

222A. Introduction to Computer-Aided Architectural Design, Two-Dimensional. (4) (Same as Architecture and Urban Design M226A.) Lecture, three hours; laboratory, one hour. Concepts of hardware, software, and networks; paint, draft, multimedia, DTP, and presentation programs; CAD in an office environment. Letter grading.

222B. Introduction to Computer-Aided Architectural Design, Three-Dimensional. (4) (Same as Architecture and Urban Design M226B.) Lecture, three hours; laboratory, one hour. Concepts of three-dimensional space, modeling, and virtual reality; file formats; modeling, rendering, and animation programs; video conference. Letter grading.

225. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

230. Introduction to Regional Planning: Evaluation of Regional Planning Initiatives. (4) (Same as Policy Studies M241.) Lecture, three hours. Critical and historical survey of evaluation of regional planning theory and practice, with particular emphasis on relations between regional planning and developments within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

231. Regional Development, Urbanization, and Industrial Policy. (4) (Same as Policy Studies M242.) 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.
233. Political Economy of Urbanization. (4) Introduction to basic concepts and analytical approaches of urban social processes, with major emphasis on American urban problems. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements.

234A. Development Theory. (4) Lecture, three hours. Review of basic literature and schools of thought on development theory through analysis of impact of industrialization, colonialism, capitalism, and socialism on various urban and rural social and economic structures in the 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 234B, M234C, and many of the other planning courses addressing Third World issues. Letter grading.

234B. Rural Development Issues. (4) Lecture, three hours. Recommended preparation: course 234A. Development more thoroughly of themes raised in earlier courses. Topics may include peasant-rural structure, along with implications for policy. Letter grading.

235A-235B. Urbanization in Developing World I, II. (4) (Same as Geography M229.) Discussion, three hours. Requisite: course 235A. Application of theories of region and metropolis political fragmentation, urban fiscal management, intergovernmental relations, role of judiciary, public services, lawmaking, citizen participation through initiatives and referenda, and government tort liability. Letter grading.

237B. Urban and Regional Economic Development Applications. (4) Lecture, three hours. Survey and analysis of economic development strategies in the 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 the state. Letter grading.

237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economics 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. Concurrently scheduled with course C196. Letter grading.

238. Advanced Seminar: Urban and Regional Development. (4) Seminar, two hours; discussion, two hours. Designed for Ph.D. students. Advanced research seminar on major issues in urban and regional development theory and/or policy. Topics usually reflect faculty research projects and change from year to year. May be repeated for credit.

239. Special Topics in Regional and International Development. (4) Lecture, three hours. Topics in urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

M240. Local Government. (2 to 6) (Same as Law M255.) 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, public services, lawmaking, citizen participation through initiatives and referenda, and government tort liability. Letter grading.


242. Locational Conflict. (4) Discussion, three hours. Conceptual foundation for understanding underlying sources of locational conflict across cities and regions; exploration of examples aimed at varying types of controversial facilities and land uses in human service and environmental arenas; development of strategies for addressing locational conflict, and coping with locational conflict. Letter grading.


245. Urban Public Finance. (4) Lecture, three hours. Requisite: course 207. Theory and practice of urban public finance, with emphasis on methods used to fund public infrastructure. Topics include fiscal impact analysis of real estate development, effects of taxes on land-use decisions, benefit assessments to finance neighborhood public investment, private and intergovernmental contracting as method of supplying urban public services, tax increment financing for urban redevelopment, and municipal bond market.

M246. Poverty, the Poor, and Welfare Reform. (4) (Same as Policy Studies M214 and Social Welfare M230.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward the poor in the U.S. S/U or letter grading.

247. Race, Gender, Culture, and Cities. (4) Discussion, three hours. Exploration of multicultural context of contemporary U.S. cities, with focus on changing social, spatial, and racial dynamics and their policy implications. Topics relate the new diversity and gender with global restructuring, new urban economy, and policies of workplace, housing, schools, and governance.


251. 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 Los Angeles metropolitan area to gain insights into practical, theoretical, and methodological problems of planning for multiple publics. Generally taken in first year.

252. Social Impact Analysis. (4) Lecture, three hours. Exploration of ways of assessing and determining social impacts on communities resulting from large-scale planning projects. Students develop mitigation measures to address identified adverse consequences. S/U or letter grading.

253. Sprawl. (4) (Not the same as course 253 prior to Fall Quarter 2002.) Lecture, three hours. Suburbs are not new, but metropolitan areas in the U.S. and elsewhere continue to grow rapidly at their edges in ways that many consider poorly planned. Discussion of causes and impacts of sprawl and what, if anything, should be done about it. Letter grading.

M254. Transportation, Land Use, and Urban Form. (4) (Same as Policy Studies M220.) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan location theory, recent trends in urban form, changing typology of cities, jobs/housing balance, transportation in the strong central city and polycentric city, neotraditional town planning debate, rail transit and urban form. Letter grading.

M255. Transportation Planning. (4) (Formerly numbered 225.) (Same as Policy Studies M244.) Lecture, three hours. Examination of how planners analyze, manage, and operate transportation systems. Measuring system performance, intelligent transportation systems, transportation system demand management, parking management, freight movement and facilities, public transit evaluation and management, policies for bicycling and walking, and transportation for elderly and disabled. Letter grading.

M256. Travel Behavior Analysis. (4) (Same as Policy Studies M221.) Lecture, three hours. Requisites: courses 207 and 235B, or Policy Studies 201 and 203. Descriptions of travel behavior in metropolitan areas, recent trends and projections into the future, 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.
M257. Transportation Economics, Finance, and Policy. (4) (Same as Policy Studies M222.) Lecture, three hours. Overview of transportation finance and economics: concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance, toll roads, road costs and cost allocation, truck congestions, congestion pricing; current issues in transit finance; fare and subsidy policies, contracting and privatization of transit services. Letter grading.

M258. Transportation and Environmental Issues. (4) (Same as Policy Studies M223.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues, chemistry of air pollution, overview of transportation-related approaches to air quality enhancement; new car tailpipe standards; vehicle inspection and maintenance issues; transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming is- sues; growth of automobile worldwide fleet; the automobile in the sustainability debate. Letter grading.

260. Environmental Politics and Governance. (4) (Formerly numbered 260A, 260B.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of institutions and politics. The matter matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.


M262A. Toxics Reduction: Science, Engineering, and Policy Issues. (4) (Same as Environmental Health Sciences M249.) Lecture, three hours. Requi-site: course 260. Public health experts, industrial engineers, and planners are being asked to assess risks biologically active chemicals present and to take such risks into account in planning process. Examination of potential for toxic reduction and current state of government and industry activities in this area. Letter grading.

262B. Urban Environmental Problems: Water Re-sources. (4) Lecture, three hours. Water is life and wealth in California, which has world’s most extensive long-distance, interbasin water transfer system. To date, water resources planning has been devoted almost exclusively to adding facilities for water delivery. But conflicts over additional developments have basi-cally precluded further extension of this system, despite growing pressures to increase supplies. Examination of environmental impacts, geography, use of water, and consideration of resource planning.

M262C. Pollution Prevention. (2) (Same as Environ-mental Health Sciences M239.) Seminar, one hour. Designed for graduate students. Series of talks by academics, policymakers, industry representatives, and public interest advocates discussing op-portunities and barriers to implementing principles of pollution prevention, including several case studies of specific policy and industry initiatives in this area. S/U grading.

263. Natural Resource Conservation. (4) Discuss-ion, three hours. Prerequisites: courses 260A, 260B. Exploration, through reading, discussion, and student presentations, of meaning of resource conservation, its desirability, and ways of achieving it. Emphasis on integrated management of public lands, though stu-dents may attend particularly to a specific resource (minerals, water, timber, wilderness).

M264. Environmental Law. (3 to 6) (Same as Law M290.) Lecture, three to three and one-half hours. Examination of the field of environmental law through analysis of a variety of legal issues and public policy le-gal consequences of public decision-making strate-gies and allocation of primary responsibility for vari-ous environmental decisions. Focus on air pollution and Clean Air Act as means of illustrating policy is- sues underlying the field.

C265. Environmentalism: Past, Present, and Future. (4 to 6) Discussion, three hours; optional field study, three to 10 hours. Focus on environmental politics and theories of environmental movements, dynamics of race, class, and gender in relation to environmental agendas, and potential role of environmentalism in re-shaping public discourse. Readings, discussion, and research papers. Offered annually as a graduate re-search seminar and biannually as an undergraduate upper division lecture and field studies program. Con-currently scheduled with course CM118. S/U or letter grading.

C266. Global Environment and Development: Problems and Issues. (4) Lecture, three hours; dis-cussion, one hour. Questions of population, resource use, and pollution prevention, including several case studies of opportunities for and obstacles to adopting principles of pollution prevention, to include providers of services to the homeless. Letter grading.

269. Special Topics in Environmental Analysis and Policy. (4) (Same as Policy Studies CM250.) Lecture, three hours. Requisites: courses 207 and 220B, or Policy Studies 204 and 208. Survey of ways economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists which bear on public policies. Letter grading.

270. Homelessness: Housing and Social Service Issues. (4) (Same as Policy Studies CM270.) Lecture, nine hours; discussion, 90 minutes; field trip. Review of current status of homelessness: who homeless are, what social services and housing are available, and most pressing problems — appropriate architecture, management, and sources of funding. Outside speakers include providers of services to the homeless. Letter grading.


M272. Real Estate Development and Finance. (4) (Same as Architecture and Urban Design M272.) Lecture, two hours; workshop, two hours; outside study, eight hours. Introduction to real estate develop-ment process specifically geared to students in planning, architecture, and urban design. Financial deci-sion model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrated with discussion and with pro-posed design solutions which are interactively modi-fied to meet economic feasibility tests. S/U or letter grading.

273. Site Planning. (4) Lecture, nine minutes; labora-tory, 90 minutes. Introduction to principles of site plan-ning for urban areas.

274. Introduction to Physical Planning. (4) Lec-ture, nine minutes; discussion, nine minutes. Overview of physical planning, land use, site analysis, and survey of general plans and community plans: environ-mental review; zoning and ordinances; social im-pacts.

M275. Community Development and Housing Pol-icy. (4) (Same as Policy Studies M243 and Social Welfare M290U.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of govern-ment policy and role of government agencies and com-munity organizations. Is the problem housing or eco-nomic development? Should interventions be directed toward inner city housing markets or through neigh-borhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M276. Urban Housing and Community Develop-ment. (3 to 4) (Same as Law M287.) Lecture, three hours; discussion, one hour. Examination of past 40 years of federal and state programs to stem urban de-cline and improve housing in the U.S.; comparison and contrast of legal and policy initiatives in areas of public housing, housing stabilization, mortgage subsidi-ies, landlord/tenant law, urban renewal, and commu-nity organizing. Research paper required. Letter grading.

277. Historic Preservation: Principles and Practic-es. (4) Lecture, 90 minutes; discussion, 90 minutes. Overview of preservation field, including history and theory, current legislation, tax incentives, preservation planning, landmark and district surveys and designa-tions, adaptive reuse, citizen involvement, and social issues.

278. Qualitative Research Methods for Planners and Designers. (4) Lecture, 90 minutes; discussion, 90 minutes. Emphasis on conceptualizing research projects using grounded theory; relation to survey da-ta. Techniques include content analysis, user needs analysis, participant observation, questionnaire con-struction, interview techniques. Projects include stu-dents' own research.

279. Seminar: Public Space. (4) Seminar, three hours. Investigation of changes in production, con-sumption, design, and meaning of public space and analysis of socioeconomic, political, and cultural fac-tors that lie behind them. Letter grading.

280. Nonprofit Housing Development. (4) Discus-sion, three hours. Overview of basic concepts and skills utilized in nonprofit development initiatives, es-pectedly community-based. Focus on nonprofit provision of subsidized housing, emphasizing way professionals “broker” debt and equity funding from private, governmental, and philanthropic sources; use of client projects and negotiation exer-cises. S/U or letter grading.

281. Introduction to History of Built Environment in the U.S. (4) Lecture, two hours; discussion, one hour. Open to advanced undergraduates with consent of instructor. Introduc-tion to history of physical forms of urbanization in America; survey of economic, political, social, and aesthetic forces behind creation of built environ-ments. S/U or letter grading.

282. Urban Design: Theories, Paradigms, Applica-tions. (4) Lecture, three hours. Discussion and evalua-tion of philosophical bases, ideologies, and para-digms of urban design in last century; examination of how these are reflected on the built environment of cities. Letter grading.

283. History of the American Household and American Home. (4) Lecture, 90 minutes; discus-sion, 90 minutes. Requisite: course 281. Introduction to history of housing design in the U.S., emphasizing changing roles of women and men from Colonial times to present, importance of family type and social changes on physical form of the dwelling and settle-ment. Discussion of concerns of professional archi-tects and planners, as well as activity of bankers, builders, and homemakers.
M284. Looking at Los Angeles. (4) Discussion, three hours. Introduction to physical form and history of Los Angeles, with emphasis on visual observation of the city as a skill for architects and planners. Field trips throughout the city. Concurrently scheduled with course C184. Letter grading.

285. Women and Community Development: Great Gender Debates, 90 minutes; discussion, 90 minutes. Relationship between planning, community development, and women, with attention to interaction of gender, race, and class/ethnicity. Examples from domestic and international developments. Alternative theories and methods to close gaps between household needs and urban policies. Preparation of written and oral critical reviews of literature and research paper. Letter grading.


M287. Nonprofit Sector, State and Civil Society. (4) (Same as Policy Studies M227 and Social Welfare M290S.) Lecture, three hours; outside study, nine hours. Designed for graduate students. 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 the U.S. Exploration of legal and policy environments and nonprofit organizational forms. Comparative perspective between the U.S. and other countries. Letter grading.

M288. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Policy Studies M228 and Social Welfare M241E.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

M290. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Policy Studies M247 and Social Welfare M241F.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems with a focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Letter grading.

M291. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design M234A.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Letter grading.

M292. Elements of Urban Design. (4) (Same as Architecture and Urban Design M271.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socio-economic, and technological framework of urban systems and its dynamic interrelations. S/U or letter grading.

M293. Politics, Ideology, and Design. (4) (Same as Architecture and Urban Design M293.) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to a set of varied physical environments and to a 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.

M294. Introduction to Occupational and Environmental Health Education. (2 or 4) (Same as Community Health Sciences M470.) Lecture, one hour; discussion, one hour; study group, two hours. Opportunity to work on joint planning/architecture project for a client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; working with resident leaders at Los Angeles City public housing developments.

M470. Introduction to Occupational and Environmental Health Education. (2 or 4) (Same as Community Health Sciences M470.) Lecture, three hours. Preparation: at least three social sciences courses. Designed to provide students with understanding of problem areas of occupational and environmental health and health education interventions which can be applied. Letter grading.

596. Research in Planning. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

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

598. Preparation for M.A. Thesis in Urban Planning. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.


Faculty Advisory Committee
Professors
Bryan C. Ellickson, Ph.D. (Economics)
Eric H. Monkonen, Ph.D. (History)

Associate Professors
Brian D. Taylor, Ph.D. (Urban Planning)
Janice L. Reiff, Ph.D. (History)

Scope and Objectives
Cities are multifaceted and can usefully be explored from more than one disciplinary perspective. The undergraduate specialization in Urban Studies brings together students and faculty from the Departments of Economics, Geography, History, Political Science, Psychology, and Sociology who share an interest in the modern city. The program gives students a solid grounding in the urban perspectives and methods of at least two departments. The specialization must be taken in conjunction with a major in the social sciences.

Undergraduate Study
Urban Studies Specialization
Students may elect to combine the Urban Studies specialization with a departmental major and may petition to have the area of specialization recognized with the bachelor's degree.

The option of completing an individual major in Urban Studies is also open to qualified students. For more information on individual majors, see the College of Letters and Science section of this catalog.

Students with a departmental major should seek advising in their major department. Those interested in the individual major should consult a Letters and Science counselor.

Courses within the specialization must be taken for a letter grade. The specialization must be taken in conjunction with a major in the division of social sciences.

Preparation for the Specialization
Required: At least five of the following courses appropriate to the courses to be taken in the specialization: Economics 1, 2; Geography 4; Political Science 40; Psychology 10; Sociology 1, M18, 104 or equivalent.

Upper Division Requirements
Required: Nine upper division courses, including (1) at least three courses outside the major department selected from Anthropology 167, Economics 120, Geography 150, Psychology 168, Sociology 158; (2) a minimum of three courses selected from one of the following suites within the major department: Economics 130, 133; Geography 150, 156; History 154A through 154D; Political Science 143A, 143B, 167B; Psychology 127, 135; Sociology 132, 156, 162. In addition, (3) a minimum of three courses selected from one of the suites in item 2 in a department outside the major department; (4) in-
ternship experience in an urban governmental or community service organization.

For further information, contact the political science undergraduate counselor in the program office.

UROLOGY
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Foundation Professor of Urology), Chair
Peter G. Schullm, M.D., Vice Chair

Director
Mark S. Litwin, M.D., M.P.H., Director of Medical Student Education

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 one week on the urology service during the third year and may return for an additional four-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 UCLA, Harbor-UCLA, Olive View-UCLA, UCLA-Santa Monica Hospital, and West Los Angeles VA Medical Centers.

For further details on the Department of Urology and a listing of the courses offered, see http://www.urology.medsch.ucla.edu.

WOMEN’S STUDIES
Interdepartmental Program
College of Letters and Science

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Christine A. Littleton, J.D., Chair

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Kathleen McHugh, Ph.D.
Kathryn Norberg, Ph.D.
Vilma Ortiz, Ph.D.
Carole Pateman, Ph.D.
Miriam R. Silverberg, Ph.D., ex officio
James A. Schultz, Ph.D., ex officio

Affiliated Faculty
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Brenda Stevenson, Ph.D. (History)

Cécile Whiting, Ph.D. (Art History)

Professors Emeriti
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Rachel C. Lee, Ph.D. (English)
Arthur L. Little, Ph.D. (English)
Elizabeth A. Marchant, Ph.D. (Spanish and Portuguese)

Valerie J. Matsumoto, Ph.D. (History)
Kathleen A. McHugh, Ph.D. (English, Film, Television, and Digital Media)
Sara E. Meizler, Ph.D. (French and Francophone Studies)
Kathryn Norberg, Ph.D. (History)
Vilma Ortiz, Ph.D. (Sociology)
Sule Ozler, Ph.D. (Economics)
Lucia Re, Ph.D. (Italian)
Sonia Saldívar-Hull, Ph.D. (English)
Mariko Tamanoo, Ph.D. (Anthropology)
Kevin B. Terraciano, Ph.D. (History)
Sharon J. Travek, Ph.D. (History)

Dawn M. Upchurch, Ph.D. (Community Health Sciences)

Mary A. Yeager, Ph.D. (History)

Assistant Professors
Evelyn Blumenberg, Ph.D. (Urban Planning)
Mitchel B. Morris, Ph.D. (Musicology)
Azziza Khazzoom, Ph.D. (Sociology)
Maria Cristina Pons, Ph.D. (Chávez Center)
Abigail C. Saguy, Ph.D. (Sociology)
Seana Shiffrin, D.Phil. (Philosophy)
Mary Terrall, Ph.D. (History)
Mary E. Thomas, Ph.D. (Geography)

Lecturers
Sharon A. Bays, Ph.D. (Anthropology)
Diane Buckler, M.F.A.
Miriam Robbins Dexter, Ph.D. (Classics)
Alice Ehols, Ph.D.
Linda Garnets, Ph.D. (Psychology)
Kendall Radcliffe, Ph.D. (History)
Susan Schafer, Ph.D. (Spanish and Portuguese)
Sylvia Sherno, Ph.D. (Spanish and Portuguese)
Paule C. Takash, Ph.D. (Chávez Center)

Adjunct Associate Professor
Jacqueline D. Goodchilds, Ph.D. (Psychology)

Visiting Assistant Professor
Ana Maria Goldani, Ph.D. (Sociology)

Scope and Objectives

The Women’s Studies Program, established in 1975, provides interdisciplinary academic programs that span departments, disciplines, and ideologies. The undergraduate program offers a Bachelor of Arts degree and a minor; the graduate program offers the Master of Arts and Ph.D. degrees.

The programs provide students the opportunity to study the full range of human experience and arrangements of social organization from the perspectives of those whose participation has been traditionally distorted, omitted, neglected, or denied — women in their racial, class, sexual, and cultural diversity. Students develop critical reasoning and analytical skills,
research and communication skills, a deep appreciation for complexities of power and asymmetries in gender relations across time, class, and culture, and conceptual tools for social change. Emphasis on multidisciplinary and multiethnic approaches assures a broader exposure to the humanities and social sciences than is commonly available within disciplinary confines. A background in women’s studies offers unique contextual validation for today’s gender controversies and prepares students for a wide range of career and life choices.

The core faculty members who teach women’s studies courses come from various UCLA departments and professional schools. Many professionals within and outside the University contribute their time, expertise, and enthusiasm. A governance committee composed of the chair, faculty members, and graduate and undergraduate student representatives sets program policies and curricula.

The program sponsors two student associations and assists other student groups with extracurricular programming on feminist issues. Research in women’s studies is promoted in cooperation with the Center for the Study of Women.

Undergraduate Study

Women’s Studies B.A.

The interdisciplinary major in Women’s 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.

Admission

To be admitted to the major, students must have completed Women’s Studies 10, be in good standing, and formally register with the program. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the chair or undergraduate adviser.

Students are encouraged to draw on the University’s diverse 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 women’s 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.

All courses 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 women’s studies courses to receive credit for completing the program. Courses in which they receive a grade of C– or lower may not be applied toward the core requirements in the major.

Preparation for the Major

Required: Women’s Studies 10. Students must also complete departmental lower division requirements, as applicable, for upper division women’s studies courses in the disciplines.

Transfer Students

To be admitted as Women’s Studies majors, transfer students with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary feminist perspectives on women and society course and departmental lower division requisite courses.

The Major

The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods, (2) provide exposure to a range of feminist scholarship across disciplines, and (3) enable students to acquire a depth of knowledge within one or two disciplinary or topical fields of inquiry. To achieve this goal, the major is divided into three categories.

Required: At least 13 upper division courses as follows:

1. Three core courses, including (a) one feminist theory course from Women’s Studies 110A or 110B or M192, (b) course 130 or one course on the study of American ethnic minority women from the approved list of women’s studies credit courses issued each term by the program, and (c) course 197 (departmental 197 courses may not be applied)

2. A distribution of at least four courses, each from a different department or discipline, selected from the approved list of women’s studies courses

3. Six additional concentration courses from one or two of the disciplines in which the core and distribution courses have been taken. Students may petition for interdisciplinary or topical concentrations such as feminist theory, women of color, women’s health, or lesbian studies. If two fields are selected, the ratio of the six courses may be divided 3-3 or 4-2

Four units of Women’s Studies 199 may be applied toward the concentration requirement for the major. This limit does not apply to Women’s Studies 199HA or 199HB.

Honors Program

The honors program is open to advanced junior and senior Women’s Studies majors with a 3.4 grade-point average in women’s studies courses and a minimum 3.0 overall GPA who have no outstanding Incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the program chair for approval. Students wishing to undertake honors in the major are advised to complete Women’s Studies 197 by Spring Quarter of the junior year.

To qualify for honors at graduation, students must successfully complete course 197 and two successive terms of independent studies (courses 199HA, 199HB) with their faculty sponsor and receive a grade of B+ or better on their research paper/project. Course 199HA may be applied toward the concentration requirement; course 199HB is in addition to the minimum required concentration courses. Further information is available from the undergraduate counselor in the program office.

Women’s Studies Minor

The Women’s Studies minor augments study in a traditional field. Students participating in this program are required to complete both a departmental major and the Women’s Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 240 Kinsey Hall. They are encouraged to declare the minor as early as possible and to discuss their proposed course of study with the chair or undergraduate adviser.

Required Lower Division Course (4 units): Women’s Studies 10.

Required Upper Division Courses (28 units):

1. One feminist theory course from Women’s Studies 110A or 110B or M192, (2) 120 or 197 or an equivalent senior research seminar approved in advance, and (3) five elective courses from the approved list of women’s studies courses issued each term by the program. At least three elective courses must be taken in departments other than the major department. No more than 4 units of any 199 course may be applied.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Courses in which students receive a grade 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, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Women’s Studies Program offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Women’s Studies.
Women's Studies

Lower Division Course

10. Introduction to Women's Studies: Feminist Perspectives on Women and Society. (5) Lecture, three hours; discussion, three hours. Introduction to study of women and men in society, covering comparative issues of social, political, and economic position in the workplace, family, cultural institutions; historical basis of women's health, wealth, and power; the female experience; the male experience; relations between women and men; intersections of ethnicity, class, and gender; violence against women; cultural images of women and men; social roles of women and men and movements for social change. P/NP or letter grading.

Upper Division Courses

Core Courses

104. Feminist Theories in Social Sciences. (4) Lecture/discussion, three hours. Requisite: course 10. Multidisciplinary explorations of theorists' attempts to describe, explain, and critique social institutions, considering impact of race, ethnicity, class, etc. Emphasis on relation of theories to change in law, work, politics, education, economics, family, religion, sexuality, etc. Applications of theories to research questions and methodologies. P/NP or letter grading.

106A. Feminist Theories in the Humanities. (4) Lecture/discussion, three hours. Requisite: course 10. Examination of theoretical positions on gender and women in study of literature and the arts. Analysis of bias in which women and sexuality have been represented in current production, considering impact of race, ethnicity, class, etc. Applications of theories to research questions and methodologies. P/NP or letter grading.

106B. Women's Studies majors or minors. In-depth study of a major theme in feminist research. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructors, then share and critique other student works in progress. P/NP or letter grading.

107. Senior Seminar. (4) Seminar, three hours. Requisites: courses 10, and 110A or 110B. Designed for advanced junior/senior Women's Studies majors or minors. In-depth study of a major theme in feminist research. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructors, then share and critique other student works in progress. P/NP or letter grading.


110A. Introduction to Women's Studies: Feminist Approaches to Social Science. (4) (Same as Economics M104.) Lecture, three hours. Emphasis on historical development of theories and methodologies. P/NP or letter grading.

110B. British Women Writers. (5) (Same as English M1007B.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by British women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by American women. P/NP or letter grading.

110C. Special Topics in Women and Literature. (5) (Same as English M107C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies in women and literature, with emphasis on a period, genre, particular theme, or nonnational literary grouping. P/NP or letter grading.

110. Love and Sex in German Literary Traditions. (4) (Same as German M101B.) Lecture, three hours. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual identity. Letter grading.

1108. Women in Jazz. (4) (Same as Afro-American Studies M109 and Ethnomusicology M101C.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from the 1880s to the present. Survey of women vocalists, instrumentalists, composers, arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

112. Special Topics in Women and the Arts. (4) (Formerly numbered 110D.) Lecture, three hours. Requisite: course 10. Selected topics relating feminist theories to creation of art by women, with consideration of cultural contexts in which they work. Approach may be conceptual, cross-cultural, and interdisciplinary. Consideration of artistic practice by women in relation to issues of power, representation, and access. May be repeated twice, except for credit toward Women's Studies major. P/NP or letter grading.


1117. Women and Politics. (4) (Same as Political Science M107C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to rapidly growing body of empirical and theoretical scholarship on women and politics both national and international contexts. Topics may include women's movement in the U.S. and globally; women's electoral participation; representation of women in Congress and in legislatures worldwide; women as heads of government and state; feminist critiques of political science; women and human rights; ERA; struggle for suffrage; mothers as political actors; women and the military; women, development, and globalization. P/NP or letter grading.

1118. Queering American History. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M118.) Lecture, four hours. History of sexual and gender minorities in the U.S. Topics may include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory and politics. P/NP or letter grading.

1119. Tristan, Isolde, and History of Heterosexuality. (4) (Same as German M104.) Lecture, three hours. German, French, and English versions of Tristan and Isolde story from Middle Ages to the 20th century. Participation between representation of "heterosexual" love in each text and contemporaneous ideas about human sexuality. P/NP or letter grading.

120. Internship in Women's Studies. (4) Seminar, three hours; internship, eight hours. Preparation: at least two upper division women's studies courses. Requisites: courses 10, 110A or 110B. Field studies course combining seminar with field placement. Practical experience in working on women's issues and connecting these experiences to methodological and theoretical themes explored in course 110A or 110B. Letter grading.

1223. International Political Economy of Work and Gender. (4) (Same as Economics M158.) Lecture, three hours. Requisite: Economics 1 or 5 or 100. Analysis of women's economic status in world economy by taking account of interdependencies between household and market activities and between economic systems and legal and political institutions. Introduction of alternative theoretical approaches in social sciences: presentation of empirical evidence. Letter grading.

125. Women and Health Care in the U.S. (4) Lecture/discussion, three hours. Requisite: course 10. Examination in depth of various ways women provide health care in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of health care. P/NP or letter grading.

1227. Women in Russian Literature. (4) (Same as Russian M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to "alternative tradition" of women's writings in Russia and the Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.

130. Women of Color in the U.S. (4) Lecture/discussion, three hours. Required course 10. Exploration of experiences of African American, Chicana, and Native American women in order to assess intersections of race, ethnicity, class, and gender. Contemporary and/or historical and/or theoretical perspectives on racism and its relation to feminism as defined by women of color. P/NP or letter grading.

M132A. Chicana Feminism. (4) Same as Chicana and Chicano Studies M110.) Lecture, three hours. Required course 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 the Chicana/Chicano community and society. Attention to Anglo-European and Third World women. P/NP or letter grading.

M132B. Contemporary Issues among Chicanas. (4) (Same as Chicana and Chicano Studies M154.) Lecture, two and one-half hours. Required course 10. Overview of conditions facing Chicanas in the U.S., including issues on family, immigration, reproduction, employment conditions. Comparative analysis with other women. P/NP or letter grading.


135. Women in Physics and Mathematics. (4) Lecture, two and one-half hours. Examination of lives and scientific contributions of five women of the 20th century — Lise Meitner, discoverer of nuclear fission; Emmy Noether, mathematician; Maria Goeppert Mayer, discoverer of nuclear shell model; Dorothy Crowfoot Hodgkin, X-ray crystallographer and organic chemist; and Chien-Shiung Wu, nuclear physicist. P/NP or letter grading.

M136. Music and Gender. (5) (Same as Music History M136.) Lecture, four hours; discussion, one hour. Analysis of music from the perspective of gender, race, and class. In several key historical periods, cultures, and geographical areas: representations of gender, the body, and sexuality by both male and female musicians; contributions of women to Western art and popular music; methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137E. Work Behavior of Women and Men. (4) (Same as Psychology M137E.) Lecture, two and one-half hours. Required course 10 or Psychology 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.

M137J. Psychology of Language and Gender. (4) (Same as Communication Studies M124 and Psychology M137J.) Lecture, four and one-half hours. Required course 10. A psychological analysis of language in several cultural contexts: sex differences in lexicon, syntax, phonology, and nonverbal behavior; development of sex-differentiated language in children; “women’s” and “men’s” language in classroom and other sex-typed preference groups; and conversational interaction. P/NP or letter grading.


M140. Women’s Studies in French Literature. (4) (Same as French M140.) Lecture, three hours. Exploration of a selected aspect of the situation of women in French literature as author, character, symbol, etc. P/NP or letter grading.

M141. Women, Health, and Aging: Policy Issues. (4) (Same as Gerontology M141 and Health Services CM141.) Lecture, three hours; discussion, one hour. Preparation: two upper division social sciences courses. Core Social and economic context of older women’s aging, major physical and psychological changes, older women experience, delivery of health services to this population, and policies that respond to their health needs. Letter grading.

142. Maya Women and Contemporary Social Change. (4) Lecture, three hours; discussion, one hour. Required course 10. Survey of recent literature on Maya culture in Chichn, Mexico, and Guatemala. Examination of culture change through study of women as social actors, participating in political, economic, and religious change. Letter grading.


M147A. Psychology of Lesbian Experience. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M147A and Psychology M147A.) Lecture, two hours; discussion, one hour. Required course 10 or Lesbian, Gay, Bisexual, and Transgender Studies M114 or Psychology 10. Designed for juniors/seniors. Review of research and theory in psychology and women’s studies to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society. Readings from various psychological theories and lesbian histories. P/NP or letter grading.

M148. Women in Higher Education. (4) (Same as Education M148.) Lecture, three hours. Designed for juniors/seniors. Exploring the role of women in higher education. Specifically, emphasis on undergraduate and graduate women; women faculty and administrators; curricula; programs, and counseling services designed to enhance women’s educational and career development, affirmative action, and other recent legislation. P/NP or letter grading.

M151. Marriage, Family, and Kinship. (4) (Same as Anthropology M151.) Lecture, three hours. Required course 10. Exploration of understanding of kinship in cross-cultural perspective and impact of kinship on interpersonal relationships, gender roles, and sociocultural systems. Readings from popular materials and formal ethnographic accounts. P/NP or letter grading.


M154P. Gender Systems: North American. (5) (Same as Anthropology M154P) Lecture, three hours; discussion, one hour; fieldwork, three weeks. Required course 10. Overview of anthropological perspective on gender and sex roles, its historical and sociocultural evolution, and its impact on women’s social and political roles. P/NP or letter grading.

M154Q. Gender Systems: Global. (4) (Same as Anthropology M154Q) Lecture, three hours. Required course 10. Overview of gender systems around the world, including concepts of femininity and masculinity, gender and social change, and gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M155. Women’s Voices: Their Critique of Anthropology of Japan. (4) (Same as Anthropology M155.) Lecture, three hours. Preparation: introductory sociocultural anthropology course. The anthropology of Japan has long viewed Japan as a homogeneous women’s liberation. Exploration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

M155Q. Women and Social Movements. (4) (Same as Anthropology M155Q) Lecture/discussion, three hours. Required course 10. Examination of women’s studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/reform), beginning with Russia and China and including Cuba, Algeria, Guinea-Bissau, Mozambique, Nicaragua, and Iran. Analysis of women’s participation in social transformations and the centrality of gender interests. P/NP or letter grading.

M158. Women in Italian Culture. (4) (Same as Italian M158.) Lecture, three hours; discussion, one hour. Examination of role of women in Italian society through history, politics, literature, film, and art. Italian majors required to read texts in Italian. P/NP or letter grading.

M159. Pornography and Evolution. (4) (Same as Communication Studies 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.

M162. Sociology of Gender. (4) (Same as Sociology M162.) Lecture, three hours; discussion, one hour. Required course 10. Introduction to the sociology of gender, its relation to social 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 Sociology M163.) Lecture, three hours. Required course 10 or Sociology 1. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as Sociology 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. Psychology of Gender. (4) (Same as Psychology M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences in childhood and in adulthood, sex roles and sex role development and role conflict, physiological and personality differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.
M166. Women in Socialist and Post-Socialist States. (4) (Same as Sociology M166.) Lecture, three hours. Exploration of diver- se aspects of women’s lives in socialist and post- socialist states. Although transition from socialism occurs differently, gender differences are everywhere present. Central to democratization and marketization. Discussion of ways in which state policies affect women. Letter grading.

M157. Contested Sexualities. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M167 and Sociology M167.) Lecture, three hours. Exploration of one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and social diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.


171. Jurisprudence of Sexual Equality. (4) Lecture. Credit/no credit or letter grading. Letters for junior and one course from 110A through M110D or Political Science 10 or Philosophy 6 or 9. Exploration of models of equality described and/or advocated by legal theo- rists — equality of opportunity, equality of outcome, equality of respect, etc. — using specific problems of women (e.g., sexual harassment or pregnancy leave policy) for purposes of comparison and critique. P/NP or letter grading.

M172. The Afro-American Woman in the U.S. (4) (Same as Afro-American Studies M172 and Psychology M172.) Lecture, two and one-half hours. Desig- nated for juniors/seniors. Impact of social, psycho- logical, political, and economic forces which impact on interpersonal relationships of Afro-American women as members of a large society and as members of their biological and ethnic group. P/NP or letter grading.

M173. Interracial Work, Friendship, and Love Re- lationships of African American Men and Women. (4) (Same as Afro-American Studies M175.) Seminar, three hours. Examination of factors that influence de- velopment, maintenance, or dissolution of interna- tional relationships of African Americans in three areas: work life, friendships, and intimate love relationships. P/NP or letter grading.

M174. Sociology of the Family. (4) (Same as Soci- ology M174.) Lecture, four hours. Theory and re- search dealing with the modern family, its structure, and functions, including historical changes, variant family patterns, family as an institution, and influence of contemporary society on the family. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM178.) Lecture, three hours; laboratory, one hour. Use of range of pedagogical approaches to the- ory and practice of critical media literacy, that neces- sarily involves understanding of new technologies and media forms. Study of both theory and produc- tion techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278. Letter grading.

185. Special Topics in Women’s Studies. (4) For- mally numbered 165A-165Z. Lecture, three hours. Preparation: one prior women’s studies course. Desig- nated for juniors/seniors. Specialized or advanced study in an area within women’s studies. May be re- peated for credit with topic and/or instructor change. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM178.) Lecture, three hours. Preparation: three hours. Exploration of diver- se aspects of women’s lives in socialist and post- socialist states. Although transition from socialism occurs differently, gender differences are everywhere present. Central to democratization and marketization. Discussion of ways in which state policies affect women. Letter grading.


M187. Violence against Women. (4) (Same as So- cial Welfare M108.) Lecture, three hours. Requisites: courses 10, 110A. Factual information and theoretical analysis of causes and effects of violence against women and girls in their homes, workplaces, and communities through critical examination of social structures and social science research. Letter grading.

188. Women and Economic Development. (4) Lecture, three hours. Requisite: course 10. Examination of effects of economic development on women, with primary focus on Third World and transition econo- mies of Eastern Europe and former Soviet Union, in- cluding roles of women in policy and practice, dispar- ate effects by economic sector, and socioeconomic groups. Letter grading.

M190. Bilingual Writing Workshop. (4) (Same as Chicana and Chicano Studies M190.) Seminar, four hours. Writing sample required on first day of class; access to course Web page mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of creative expression, with focus on specific genre (i.e., autobiography, poet- ry, fiction). Emphasis on memory, identity, gender, and sexuality. Central theme of bilingualism as politics and aesthetics of critique of weekly writing assign- ments. Letter grading.

M192. Philosophical Analysis of Issues in Femi- nist Theory. (4) (Same as Philosophy M192.) Lecture, three hours. Requisite for Women’s Studies ma- jors: course 10; for other students: one philosophy course 10 or Philosophy 6 or 9. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoreti- cal contributions made by the new scholarship on women in philosophy. Critical study of concepts and principles which arise in discussion of women’s rights and liberation. Philosophical approach to feminist the- ories. May be repeated for credit with consent of in- structor. Letter grading.

M194. Women and the City. (4) (Same as Urban Planning M194.) Lecture, three hours. Examination of relationships between urban development and (1) how cities have affected women’s opportunities for economic and social equality, (2) women’s contributions to de- velopment of U.S. cities, and (3) contemporary strate- gies and experimental instruments that re- flect women’s needs and interests. P/NP or letter grading.

199. Special Studies in Women’s Studies. (4) Tuto- rial, to be arranged. Preparation: at least two upper di- vision women’s studies courses, minimum 3.0 grade- point average. Directed program of independent read- ings and/or research on a specific topic within wom- en’s studies. No more than 4 units may be applied to- ward Women’s Studies major or minor. P/NP or letter grading.

199HA-199HB. Directed Studies for Honors. (4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major, 2.0 grade-point average in major. Requisite: course 197. Limited to women’s studies honors program students. Two-term sequence to re- search and write honors thesis under direction of fac- ulty sponsor. In Progress and P/NP or letter grading.

Graduate Courses

201. Feminist Theories. (4) Lecture/discussion, three hours. Introduction to field of feminist critical theories in humanities and social sciences disci- plines. Concentration on European and U.S. theo- rists, including women of color. Examination of classic texts, as well as creation stories Genesis and essays by Engels, Freud, and others, to analyze how feminist theories articulate counter-discourse to patriarchal in- tellectual traditions. Letter grading.

202. Multicultural Perspectives on Women’s Is- sues. (4) Lecture/discussion, three hours. Requisite: course 10. Examination of issues facing women of color in the U.S. and women living outside Europe and North America today. Issues include reproductive rights, international division of labor, violence toward women, sexuality, women and colonialism, women in social movements, women and the state, feminist or- ganizing throughout the world. Letter grading.

203. Research Methods in Studies of Women and Gender. (4) Lecture/discussion, three hours. Prepara- tion: prior or concurrent enrollment in graduate re- search methods course in discipline or focus area, one or more undergraduate or graduate courses in women’s studies. Requisites: courses 201, 202. Top- ics include feminist research methods, models of inclusion of women in research and theory, nonfeminist research methods from conception through interpretation, what constitutes "feminist" research, in- clusiveness and attention to diversity issues, appro- priate frameworks in comparative research. Supple- ments: Special conferences on research methods. Letter grading.


205. Gender and Politics of Information. (4) Semi- nar, three hours. Designed for graduate students. Ex- amination of gendered dimensions embedded in in- formation technologies. Critical feminist assessment of information as resource and commodity; impact of Internet and information technologies on women and men and gendered distinctions between who builds and "owns" information and access to information resources; race, class, gender relations in cyberspace and elec- tronic communications. Letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Designed for graduate women’s studies students. Introduction to background, decision- making processes, and current debates over public policy directly affecting women in one or more major spheres of public life (e.g., work, family, political system, health care, legal reform). May focus on public health, political science, medicine, work- place studies, and social welfare. May be repeated for credit with topic or instructor change. Letter grading.

215. Topics in Study of Sexuality and Gender. (4) Seminar, three to four hours. Designed for graduate students. Multidisciplinary studies on aspects of sexu- al orientation, gender identity, queer and transgender theory, interdisciplinary research on minority sexuali- ties, and social construction/deconstruction of gen- der. May be repeated for credit with topic or instructor change. Letter grading.

220. Cultural Studies in Gender, Race, and Sexu- ity. (4) Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in literature and performance culture, with special attention to race. Topics include flow of artistic cultural production across national borders, theorizing femiqueer as diasporic or multicultural for- mation. Letter grading.

CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM278.) Lecture, three hours; laboratory, one hour. Use of range of pedagogical approaches to theory and practice of critical media literacy, that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178. Letter grading.

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.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Feminist Pedagogy. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Women’s Studies Program. Introduction to feminist methods of teaching, with emphasis on reciprocity and dialogue and de-emphasis on hierarchy. Requisite of students while serving as teaching assistants (first time only) in undergraduate women’s studies courses. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203. Directed individual research and study in area related to women’s studies/gender studies, arranged individually by student with instructor. May be repeated for credit. S/U or letter grading.


Related Courses

Check with the program office for additional course listings.

Anthropology
137. Selected Topics in Cultural Anthropology: Food and Culture
163. Selected Topics in Applied Anthropology (selected)
263P. Gender Systems

Asian American Studies
115. Asian American Women

Classics
150A. Female in Greek Literature and Culture
150B. Female in Roman Literature and Culture

Communication Studies
197C. Special Topics in Communication Studies: Media Content/Criticism and History — Media, Gender, and Ethnicity

Community Health Sciences
226. Women’s Health and Well-Being
230. Family and Sexual Violence
246. Women’s Roles and Family Health
248. Women’s Mental Health
343. Reproductive Health: Demographic Applications
434A. Maternal and Child Health in Developing Areas
435. Seminar: Advanced Issues in Women’s Health

Comparative Literature
CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature
C270. Alternate Traditions: In Search of Female Voices in Contemporary Literature
271. Imaginary Women

English
177. Special Topics in American Literature (selected)
180X. Specialized Studies in Literature (selected)
M197D. Special Topics in Lesbian and Gay Literature

German (Germanic Languages)
118. Feminist Issues in German Literature and Culture

Health Services
M110. Ethnic, Cultural, and Gender Issues in America’s Health Care Systems
CM241. Women, Health, and Aging: Policy Issues

History
137A-137B. History of Women in Europe
156C. History of Women in Colonial British America and Early U.S., 1600 to 1860
156D. History of Women in the U.S., 1860 to 1980
183C. History of Women in China, A.D. 1000 to the Present
185B. Women in 20th-Century Japan
M191D. History of Anti-Semitism
195C. Historical Perspectives on Gender and Science
197A-197O. Undergraduate Seminars (selected)
259A-259B. History of Women

Music History (Muscology)
M137. Gay and Lesbian Perspectives in Pop Music

Political Science
149. Special Topics in American Government and Politics (selected)

Psychology
197. Current Issues in Psychology (selected)
231. Psychology of Gender

Russian (Slavic Languages)
M127. Women in Russian Literature

Sociology
228. Feminist Theory
252. Selected Topics in Sociology of Gender
285. Special Topics in Sociology: Sociology of Gender

Spanish (Spanish and Portuguese)
151A. Women in Hispanic Literature: Spain
151B. Women in Hispanic Literature: Spanish American

World Arts and Cultures
100A. Art as Social Action
100B. Art as Moral Action

Scope and Objectives

Guided by an interdisciplinary faculty of artists, arts scholars, and ethnographers, the academic programs in the Department of World Arts and Cultures (WAC) are organized around three fundamental missions: (1) the formulation of critical and intercultural insights into the nature of human creativity, (2) the creation and
interdisciplinary study of dance and other body-based modes of performance, and (3) mutually beneficial engagement with the diverse cultural and artistic communities of Los Angeles.

The department is an interdisciplinary unit that finds its raison d’etre in a set of intellectual and artistic problems rather than an established academic discipline. The programs of teaching, research, and performance are unified around a shared concern with problems of cultural identity and differences, the meaning of tradition in contemporary societies, the forging of connections between critical theory and artistic practices, and the changing social roles and responsibilities of artists and scholars of the arts, both in the U.S. and worldwide.

The undergraduate program offers concentrations in dance and cultural studies. The graduate program offers Master of Arts and Ph.D. degrees in Culture and Performance and a Master of Fine Arts in Dance. Students are encouraged to explore relationships among the different curricular emphases, including world arts practices, cultural studies, dance studies, and folklore, as a means to tailor a particular course of study to their professional goals.

Students in the World Arts and Cultures Department at UCLA study with faculty members of international standing engaged in both creative artistic work and research. Students from this unique department have gone on to pursue advanced degrees and/or careers in arts management, education, cultural policy, community outreach, architecture and urban planning, law, and various academic disciplines within the arts, humanities, and social sciences, as well as in the professional fields of dance.

**Undergraduate Study**

**World Arts and Cultures B.A.**

The World Arts and Cultures major leads to the Bachelor of Arts degree and is designed to offer choice and flexibility while maintaining balance and rigor. At the outset, students select one of two concentrations: dance or cultural studies. All students take a set of core courses designed to explore a wide range of artistic practices in cultural context. In addition, students selecting the dance concentration are required to study movement techniques of their choice four to five days a week for the first two years of the program, while those concentrating in cultural studies must select 12 units of arts practice electives in movement, music, theater, film, design, or visual art — either within or outside the department. At the end of the sophomore year, students propose a course of study from courses in and outside the department that leads to the senior project — in the form of an academic paper, a video, or a performance, with the student's imagination as the only limit — which serves as the culmination of the undergraduate coursework.

The dance concentration offers courses in a wide range of idioms from throughout the world, including special emphasis on modern/postmodern dance. Opportunities for performance, production, videography, and movement studies are augmented by courses in the study of the body and of bodily identity from historical and cultural perspectives, dance theory, and dance in the public sphere, including arts pedagogy. Multimedia forms of expression integrating music, theater, visual arts, film, and other technologies along with hybrid forms of cultural expression utilizing both emerging and classically based vocabularies are encouraged.

The cultural studies concentration provides students with an introduction to key issues, problems, and debates in the study of art and creativity in cultural context. Beyond the required set of core courses, students select from a range of courses offered in the World Arts and Cultures Department and in other departments. Students may also consider 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, area specializations such as Africa, Asia, or Latin America, minority discourse, gender or women's studies).

Students who wish to confer with the departmental student affairs officers regarding program planning and major requirements should contact Wendy Temple at (310) 825-8537 or Sandra McKerroll at (310) 206-5467.

**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 two personal essays. These 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 interested in the dance concentration must participate in a February audition.

Current UCLA students who petition to change their major are required to meet with one of the student affairs officers prior to application. They are advised to take world arts and cultures courses during the term in which they apply to the program. They must have a minimum 2.0 overall grade-point average and no more than 120 quarter units. Students interested in the cultural studies concentration may apply at the beginning of Fall, Winter, and Spring Quarters. Those interested in the dance concentration may apply at the beginning of Fall and Spring Quarters and are expected to participate in an audition.

**The Major**

The major consists of 97 units of coursework for the dance concentration and 85 units for the cultural studies concentration, including the 8-unit senior project. Required: A core of 10 courses (32 units): World Arts and Cultures 1, 2 (taken twice), 3, 70, 90, 100A or 100B, 101, 102, 103. Sixteen units of coursework in culture/performance studies are also required, selected from World Arts and Cultures 106B through 185C, 192 through 199, or outside the department subject to consent of the faculty adviser.

In addition, the following courses are required:

**Cultural Studies Concentration:** 12 units of arts practice electives selected from World Arts and Cultures 5 through 16 and 56 through 69 or from courses offered by other departments subject to consent of the faculty adviser; course 20; and 12 units selected from courses 120 through C142.

**Dance Concentration:** 24 units of movement techniques selected from World Arts and Cultures 5 through 16 and 56 through 69, including courses 16 and 67 or 69; course 45; and 12 units selected from courses 116 through 119 and C145 through C168.

World Arts and Cultures 190, 191A, and 191B (9 units total) are required. These courses are the culmination of the major and have three possible areas of focus — performance, applied research, or cultural studies research — as follows: (a) the performance project is a creative project leading to the production and public performance of original or traditional work; (b) the applied research focus implies an application of knowledge in a hands-on situation and includes projects in and with the community or campus; (c) the cultural studies focus involves students in independent ethnographic research in some aspect of the arts. The subject of study can be found in, but is not restricted to, the Los Angeles community. Field study includes the use of video, slides, and sound recordings.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Culture and Performance and Master of Fine Arts (M.F.A.) degree in Dance.
World Arts and Cultures

Lower Division Courses

1. Introduction to World Arts and Cultures. (5) (Formerly numbered 12.) Lecture, three hours; discussion, one hour. Survey of concepts and theories involved in intercultural, interdisciplinary study of art, aesthetics, and performance. Examination of interactions among various modes of creative expression, role of style in daily life, performative representation of cultural identity and difference, and interaction of diverse artistic traditions. Letter grading.

2. Lower Division Seminar. (4) Seminar, three hours. In-depth investigations of variable topics, including the body in cultural context, music and soundscapes, material culture, visual imagery, oral genres, and realm of the spirit, as well as other subjects pertaining to broader discipline of world arts and cultures. May be repeated for credit without limitation. Letter grading.

3. World Arts Forum. (1) (Formerly numbered 50.) Lecture, 90 minutes. Introduction to major issues in disciplining world arts and culture with world arts resources on campus. Presentations by faculty, curators, artistic directors, performers, scholars, national leaders in the arts, international guests. Specific presentations vary from term to term. May be repeated for a maximum of 4 units. P/NP grading.

5. Beginning Global and Transcultural Forms. (2) Studio, three hours. Beginning-level study of world arts practices crossing national and cultural boundaries. Variable topics, such as body music, crosscultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

6. Beginning World Arts Practices in Sub-Saharan Africa and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from sub-Saharan Africa and extending to cultures of African diaspora, including Brazil and the Afro-Caribbean. Variable topics, such as dance of Guinea, Mali, and Senegal or Afro-Caribbean masking traditions, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

7. Beginning World Arts Practices in Middle East/ North Africa and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from the Middle East and North Africa. Variable topics, such as belly dancing or Israeli folk dance, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

8. Beginning World Arts Practices in Latin America and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from Latin America, including cultures of South and Central America. Variable topics, such as Argentine tango and Mexican folkloric dances, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

9. Beginning World Arts Practices in North America and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from North America, including the U.S., Canada, and Native America. Variable topics, such as Native American dance, jazz, and jazz-tap, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

10. Beginning World Arts Practices in East Asia and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from East Asia, including China, Japan, Korea, and Vietnam. Variable topics, such as movement and music techniques of Beijing Opera, Korean shamanic movement practices, and Kabuki theater, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

11. Beginning World Arts Practices in South Asia and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from South Asia and extending to South Asian diasporas, including communities in England and West Africa. Variable topics, such as Bharata Natyam (classical dance of India), bhanga (diasporic social dance), and hatha yoga, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

12. Beginning World Arts Practices in Southeast Asia and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from Southeast Asia. Variable topics, such as Cambodian court dance, Indonesian kechak, or Balinese le- gong, in cultural context. May be repeated for credit without limitation. P/NP or letter grading.

13. Beginning World Arts Practices in Europe and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including the U.S. Variable topics, such as flamenco, Balkan folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

15. Beginning Modern/Postmodern Dance. (2) (Formerly numbered 1A.) Laboratory, four hours. Study of modern/postmodern dance, critical viewing, reading, and discussion of modern/postmodern artists' works. May be repeated twice for credit. P/NP or letter grading.

16. Beginning Improvisation in Dance. (2) (Formerly numbered 1.) Laboratory, three hours. Introduction to creative exploration in movement through improvisational and compositional exercises that access and develop the imagination, find relationship between imagination and dance making, and enrich movement vocabulary. May be repeated once for credit. P/NP or letter grading.

20. Introduction to Cultural Studies. (4) Lecture, three hours. Limited to World Arts and Cultures majors. Introduction to key concepts and major theoretical and methodological debates that characterize field of cultural studies, including discussion of notions of culture, popular culture, subculture, youth culture, hegemony, gender, race, class, and national identity. Letter grading.

22. Introduction to American Folklore Studies. (5) (Formerly numbered M22.) Lecture, four hours; discussion, one hour; outside study, 10 hours. Cultural/historical survey of development of American civilization and of influence of the American experience in shaping folklore in American society; attention also to representative areas of inquiry and analytical procedures. P/NP or letter grading.

45. Introduction to Dance Studies. (4) Lecture, three hours. Introduction to discipline of dance studies, with focus on study of corporeality as key contemporary perspective on the body. Multidisciplinary approach to dancing bodies conceptualized as social constructs, including attention to gender, race, class, and national identity. P/NP or letter grading.

59. Intermediate World Arts Practices in North Asia and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from East Asia, including China, Japan, Korea, and Vietnam. Variable topics, such as dance of Guinea, Mali, and Senegal or Afro-Caribbean masking traditions, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

58. Intermediate World Arts Practices in Latin America and Diaspora. (2) Studio, three hours; outside study, three hours. Intermediate-level study of world arts practices originating from Latin America, including cultures of South and Central America. Variable topics, such as Argentine tango and Mexican folkloric dances, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

59. Intermediate World Arts Practices in North America and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from North America, including the U.S., Canada, and Native America. Variable topics, such as Native American dance, jazz, and jazz-tap, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

61. Intermediate World Arts Practices in South Asia and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from South Asia or from cultures of South Asian diasporas, including communities in England and West Africa. Variable topics, such as Bharata Natyam (classical dance of India), bhanga (diasporic social dance), and hatha yoga, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

62. Intermediate World Arts Practices in Southeast Asia and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from Southeast Asia. Variable topics, such as Cambodian court dance, Indonesian kechak, or Balinese legong, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

63. Intermediate World Arts Practices in Europe and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including the U.S. Variable topics, such as flamenco, Balkan folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

64. Intermediate Modern/Postmodern Dance. (2) (Formerly numbered 101A.) Studio, four hours. Technical training with emphasis on increasing skill. May be repeated twice for credit. P/NP or letter grading.

65. Introduction to Dance Composition. (2) (Formerly numbered 105.) Lecture, one hour; laboratory, three hours. Study of processes derived from a Western theatrical tradition by which movement is generated, with focus on specific technical and choreographic aspects of movement materials. May be repeated twice for credit. P/NP or letter grading.

66. Introduction to Intercultural Composition. (2) Studio, three hours; outside study, two hours. Study of processes derived from interaction of Western theatrical tradition with non-Western forms, with specific consideration toward shaping/forming/movement materials. May be repeated twice for credit. P/NP or letter grading.

70. Production. (1) Laboratory, three hours. Introduction to practical perspectives on producing events in world arts and cultures, including but not limited to theatrical support and planning and executing lecture series. May be repeated once for credit. P/NP grading.

89. Sophomore-Year Proposal. (1) Lecture, 90 minutes. Planning and execution of proposal for junior year of study, with attention to exploring resources of department and University as a whole. P/NP grading.

69. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three to six hours. Designed for fresh- men/sophomores. Private or semiprivate instruction in a world arts practice with a distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for a maximum of 24 units. P/NP grading.
Upper Division Courses

100A. Art as Social Action. (4) (Formerly numbered 140A.) Lecture, four hours. Designed for juniors/seniors. Discussion of what constitutes an artist’s social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between the powers of this world and the powers of art, P/NP or letter grading.

100B. Art as Moral Action. (4) (Formerly numbered 140B.) Lecture, four hours. Designed for juniors/seniors. One’s ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies of moral engagement, particularly in relation to historical, social, and aesthetic practices originating from North America and extending to cultures of Europe and Africa. May be repeated for credit without limitation. P/NP or letter grading.

101. Theories of Performance. (4) Lecture, three hours. Requisite: course 90. Introduction to a range of contemporary critical positions applicable to analysis of performance, including dance, postcolonial theory, queer theory, and intercultural theory. P/NP or letter grading.

102. Seminar: Intercultural and Interdisciplinary Performance. (4) (Formerly numbered 140C.) Seminar, four hours. Requisite: course 101. Recent discussions of multiculturalism have demanded a broader base of cultural competence and understanding from artists in particular. Moving beyond stereotyping and formalism, focus on areas of overlap and exchange, collaborations, collective creation, hybridization, and evolving possibilities of video and extended media. P/NP or letter grading.

103. Arts in the Community. (4) Lecture, four hours. Requisite: course 90. Following up on discussions of impoverishment of theatrical performance, many artists and scholars have turned attention to full engagement with communities in which they live. Investigation of practical application of those engagement strategies, culminating in a pilot community project. Letter grading.

106B. Dance in Africa and African Diaspora. (4) (Formerly numbered 182.) Lecture, four hours. Survey of dance in sub-Saharan cultures and their new world transformations, with consideration of role of dance in social change and as agent of personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.

106D. Dance in East Asia. (4) (Formerly numbered 181C.) Lecture, four hours. Survey of dances of Japan, China, and Korea that have influenced or been developed from one another. Consideration of relationship of dance to other art forms. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.

111B. Dance in Southeast Asia. (4) (Formerly numbered 181D.) Lecture, four hours. Survey of dance forms in India and Sri Lanka. Factors influencing development of dance, its social function, and its relationship to other art forms. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.

112B. Dance in Latin America. (4) (Formerly numbered 181B.) Lecture, four hours. Survey of selected ritual, social, and court dances of Indonesia, Cambo- dia, Thailand, and the Philippines. Social, historical, and aesthetic factors. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.

C113A. Advanced World Arts Practices in Europe and Diaspora. (2) Seminar, three hours; outside study, three hours. Advanced-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including the U.S. Envisioning, creating, and fusing Balkan folk dance, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C413A. P/NP or letter grading.

C115. Advanced Modern/Postmodern Dance. (2) (Formerly numbered C102A.) Studio, six hours. Requisite: course 65. Studies in advanced modern/postmodern dance technique, with emphasis on perform- ing skills. May be repeated for credit without limitation. Concurrently scheduled with course C415. P/NP or letter grading.

116. Advanced Improvisation in Dance. (2) (Formerly numbered 103.) Studio, four hours. Development of aesthetic perspective through use of imagery, sound, and other art. Concentration and projection. May be repeated twice. P/NP or letter grading.

117. Advanced Topics in Choreography. (4) (Formerly numbered 115.) Lecture, four hours, studio, two hours. Requisites: courses 16 and 67 or 69. Directed exploration in composition, with focus on developing theme-based choreographic works that are informed by theoretical engagement with selected topics through lectures, readings, and discussion. Thematic topics include contemporary issues and concerns such as image, essence, and abstraction; home, history, and memory; and constructing identity. May be repeated for credit without limitation. P/NP or letter grading.

118. Advanced Interdisciplinary Composition. (4) Lecture, four hours; studio, two hours. Requisites: courses 16 and 67 or 69. Directed exploration in composition, with focus on developing works that engage two or more disciplines, such as dance, music, visual art, performance art. Theoretical engagement with selected topics through lectures, readings, and discussions. May be repeated for credit without limitation. P/NP or letter grading.

119. Intermediate Interdisciplinary Composition. (4) Lecture, four hours; studio, two hours. Requisites: courses 16 and 67 or 69. Directed exploration in composition, with focus on works that engage techniques and practices of two or more cultures. Engagement with postcolonial theory through lectures, readings, and discussions. May be repeated for credit without limitation, P/NP or letter grading.

120. Selected Topics in Cultural Studies. (4) (Formerly numbered 130.) Lecture, three hours. Designed for juniors/seniors. A one-semester interdisciplinary study of arts and performance in cultural and histori- cal context. Consult Schedule of Classes for topics to be offered in a specific term. May be repeated for credit without limitation, P/NP or letter grading.

121. Ethnography of Performance. (4) (Formerly numbered C121.) Lecture, two hours; discussion, two hours; fieldwork, one-half day/week. Open to students with permission of a faculty member. May be taken for a maximum of 8 units. P/NP or letter grading.

122. Introduction to Folklore. (4) (Formerly numbered M122.) Lecture, four hours. Survey of various forms of folklore and approaches to their identification, description, and analysis, including their histori- cal and social significance. Introduction to expressive behavior of folk groups from throughout the world and comparison through readings, lectures, films, and field- work, with attention to art forms within other tra- ditions in relation to evolving popular culture. P/NP or letter grading.

C123. Arts of Identity: Survey of Expressive Cul- tures. (4) (Formerly numbered C164.) Lecture, four hours; outside study, eight hours. Introduction to study of arts, performance, and creativity in cultural context. Special attention to relationships between arts and identity and to role of artists in cultural survival and transformation. Concurrently scheduled with course C223. P/NP or letter grading.

M125A. Beyond the Mexican Mural: Beginning Muralism and Community Development. (4) (Formerly numbered M166A.) (Same as Art M166A and Chicana and Chicano Studies M166B.) Lecture, six hours. Corequisite: course M125AL. Investi- gation of muralism as a method of community educa- tion, development, and empowerment. Exploration of issues through development of collaborative digitally created image and/or painting for placement in a community. Students research, de- sign, and work with community participants. P/NP or letter grading.

M125AL-M125BL-M125CL. Beyond the Mexican Mural: Muralism and Community Laboratory. (2-2-2) (Formerly numbered M166AL-M166BL-M166CL) (Same as Art M166AL-M166BL-M166CL and Chicana and Chicano Studies M166AL-M166BL-M166CL) Laboratory, two hours. Corequisite: course M125AL is requisite to M125BL, which is requisite to M125CL. Mural and Digital Laboratory is an art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in a community-based setting. Open to students during scheduled hours with laboratory tech support. Offers instruction in collaborative and independent and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in a community setting. P/NP or letter grading.

M125AL-M125BL. Beyond the Mexican Mural: Muralism and Community Design. (4) (Formerly numbered M166AL-M166BL) (Same as Art M166AL-M166BL and Chicana and Chicano Studies M166AL-M166BL) Studio/Lecture, six hours. Corequisites: courses M125A, M125AL. Corequisite: course M125BL. Continuation of investi- gation of muralism as a method of community educa- tion, development, and empowerment. Exploration of issues through development of a large-scale collabor- ative digitally created image and/or painting for placement in a community. Students research, design, and work with community participants. Continu- ation of project through states of production to full scale and community approval. P/NP or letter grad- ing.

M125C. Beyond the Mexican Mural: Advanced Muralism and Community Development. (4) (Formerly numbered M166C.) (Same as Art M166C and Chicana and Chicano Studies M166C) Studio/Lecture, six hours. Corequisites: course M125BL. Corequisite: course M125CL. Continuation of investi- gation of muralism as a method of community educa- tion, development, and empowerment. Exploration of issues through development of large-scale collabor- ative digitally created image and/or painting for placement in a community. Students research, de- sign, and work with community participants. Continu- ation of project through installation, documentation, and dedication, with work on more advanced inde- pendent projects. P/NP or letter grading.
127. The City as a Work of Art. (4) (Formerly numbered 141A.) Lecture, three hours. Designed for juniors/seniors. Interdisciplinary approach to complex physical, emotional, psychological, and spiritual dynamics that create and sustain urban life, with emphasis on artists’ role in shaping the spaces which affect people’s lives. Discussion of religious and social aspirations as expressed in music, poetry, dance, and visual arts, as well as architecture and city planning. P/NP or letter grading.

M128. Chicana Art and Artists. (Same as Art M120 and Chicano Studies M128.) Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

C129. Food Customs and Symbolism. (Formerly numbered CM129.) Lecture, three hours. Designed for juniors/seniors. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include food practices, gestures, foodsharing, food and identity, food and its emotional significance, aversions and taboos, advertising, changing food habits, and the American diet. Concurrently scheduled with course C229. P/NP or letter grading.

M130. Living Vernacular. (4) (Formerly numbered 130.) (Same as Architecture and Urban Design M130.) Lecture, three hours. Survey of array of spaces and places from a cross-cultural or comparative perspective and with a performance emphasis, which means focus on mutual interaction of human beings and their created environments. Emphasis on “common,” “ordinary,” “anonymous,” or “vernacular” non-built and built environments, which are built and used by members of small-scale, traditional, and “transitional” communities around the world. P/NP or letter grading.

131. Folk Art and Aesthetics. (4) (Formerly numbered M131.) Lecture, four hours. Designed for juniors/seniors. General course concerned with folk art, aesthetics, and material culture and with theoretical concepts and methodologies utilized in their analysis. P/NP or letter grading.

132. Narrative and Oral Performance. (Formerly numbered M132.) Lecture, four hours. Survey of concepts of story as text versus narrating as oral performance, studies of individual narrators, how stories are composed in performance, interaction of narrator and audience, how place and experience become embodied in narratives, modes of representing oral narrating, and politics of stories and oral performance. P/NP or letter grading.

133. Textiles of the World. (4) (Formerly numbered 146.) Lecture, four hours; discussion, one hour; laboratory, one hour. How cloth and clothing were and continue to be hand-woven in indigenous societies. Use of textiles from Fowler Museum collection to coordinate hands-on experience with cultural history. May be repeated twice for credit. P/NP or letter grading.


135. African Popular Arts. (4) Lecture, three hours. Introduction to problems and issues in study of popular arts in sub-Saharan Africa. Lectures, readings, and audiovisual materials focus on broad spectrum of creative forms and processes, including visual and plastic arts, literature, performed genres such as music, poetry, theater, and dance, and everyday practices such as hair weaving, housepainting, personal adornment, and joke telling. P/NP or letter grading.


C139. Afro-Caribbean Ritual Arts: Vodou and Santeria. (4) (Formerly numbered CM139.) Lecture, three hours. Designed for juniors/seniors. Ethnography of diaspora African religions, including vodou, Santeria, and Candomble. Lectures, readings, and video material focus on performance of ritual and its expression in religious art. Concurrently scheduled with course C229. P/NP or letter grading.

CM140. Women Healers, Ritual, and Transformation. (4) (Formerly numbered C140.) Same as Women’s Studies CM140.) Lecture, four hours; outside study, six hours. Emphasis on role of women healers, historically and within contemporary culture-specific contexts. Exploration of psychological functions served by rites of passage and healing rituals and of role of arts in healing rituals. Concurrently scheduled with course CM240. P/NP or letter grading.

C141. Carnival and Festivity. (4) (Formerly numbered CM141.) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions and their Old World antecedents. Topics include carnivale and the carnivalesque and politics of celebration. Concurrently scheduled with course C241. P/NP or letter grading.

C142. Myth, Magic, and Mind. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Consideration of metaphor and symbol, reflexive anthropology, and notion of culture as text applied to such examples as trickster figures, rhetorical devices including parable and irony, and arguably magical cultural categories. Concurrently scheduled with course C242. P/NP or letter grading.

C145. Selected Topics in Dance Studies. (2 to 4) (Formerly numbered C197.) Lecture, four hours; outside study, six hours. Designed for juniors/seniors. Consideration of metaphor and symbol, reflexive anthropology, and notion of culture as text applied to such examples as trickster figures, rhetorical devices including parable and irony, and arguably magical cultural categories. Concurrently scheduled with course C252. P/NP or letter grading.

C154. Dance and Folklore. (4) (Formerly numbered CM154.) Lecture, four hours. Focus on folkloric tradition as a site for cultural construction, social construction, representation, and display of national, ethnic, and other affinity identities. Emphasis on various European and European-American dance idioms. Concurrently scheduled with course C254. P/NP or letter grading.

C155. Self and Culture. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Designed for juniors/seniors. Examination of critical developments and situational factors contributing to construction of a sense of self and emergence of creativity and subjective relatedness in different cultural settings. Concurrently scheduled with course C255. P/NP or letter grading.

158. Choreographing Gender. (4) Lecture, three hours; laboratory, two hours. Designed for seniors. Analysis of aesthetic codes and theatrical choreography that contribute to and are constructed from constructions of gender in the U.S., with close attention to race, class, and sexuality. P/NP or letter grading.

159. Movement Theories. (2) (Formerly numbered 122.) Lecture, two hours; laboratory, two hours. Study of motor coordination patterns as related to expressive movement features for dance performance. Personalized attention and use of video to increase students’ stylistic diversity. Development of movement efficiency for prevention of dance injuries. May be repeated twice. P/NP or letter grading.

160. Topics in Body Mechanics. (4) Lecture, three hours; studio, one hour. Designed for juniors/seniors. Examination of critical developments and situational factors contributing to construction of gender in the U.S., with close attention to race, class, and sexuality. P/NP or letter grading.

161. Movement Observation and Analysis. (4) (Formerly numbered 125.) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Use of variable theoretical frameworks and techniques such as laboratory analysis to emphasize culturally defined processes of observing, analyzing, and describing human movement. P/NP or letter grading.
165. Foundations of Dance Education. (4) (Formerly numbered 151A.) Lecture, two hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for modern/postmodern dance instruction. Supervised teaching practicum included. P/NP or letter grading.

166. Dance as Culture in Education. (4) (Formerly numbered 151B.) Lecture, two hours; laboratory, two hours. Required: course 46. Theoretical and practical aspects of teaching ethnic dance, especially in higher education. P/NP or letter grading.

167. Creative Dance for Children. (4) (Formerly numbered 153.) Lecture, three hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for teaching children's dance; emphasis on dance as a creative medium of expression. P/NP or letter grading.

168. Beyond Academia: Making Art in the Real World. (4) Lecture, four hours; outside study, eight hours. Designed for seniors/seniors. Focus on understanding how art, drama, and regional histories conditioning creation of art in the real world, including such practical issues as publicity and grantwriting. Concurrently scheduled with course C266. P/NP or letter grading.

170. Advanced Production. (1) Laboratory, three hours. Required: course 70. Further development and application of technical and administrative support practices in producing events in world arts and cultures, including but not limited to theatrical support and planning and executing lecture series. May be repeated for credit without limitation. P/NP grading.

171. Lighting Design for Dance Theater. (4) (Formerly numbered 141.) Lecture, four hours; laboratory, two hours. Lighting for dance: examination of aesthetic, theatrical, principles, and technical elements. Application to selected choreographies to be publicly performed. P/NP or letter grading.

172. Costume and Scenic Design Concepts for Dance Theater. (4) (Formerly numbered 144.) Lecture, four hours. Study of theory for conceptualizing dance performance environments, communication through visual elements, and production of costumes and sets. Media, and procedures for producing dance costumes and sets in order to facilitate choreographer/designer communication. P/NP or letter grading.

173. Sound Resources for Performance. (4) (Formerly numbered C210.) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for seniors/seniors. Exploration of music, in search of the interesting, new, and unusual. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and patterns; body (clapping, stepping, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C273. P/NP or letter grading.

175. Applied Writing: Writing about the Arts. (Formerly numbered CM175.) Lecture, four hours. Designed for seniors/seniors. Introduction to methods and issues in application of folklore studies to such areas as education, health, museums, organization development, tourism, environmental education, and community development, aging, art therapy, and public sector folk-life. Concurrently scheduled with course C275. P/NP or letter grading.

176. Internship in World Arts and Cultures. (2 to 4) (Formerly numbered 110.) Seminar, two to four hours; fieldwork in community settings, eight to 12 hours. Required: course 165; internship at sites in greater Los Angeles where cultural policy is made or where arts are practiced. Required journal writing and final paper. May be taken for a maximum of 6 units. P/NP or letter grading.

177. Taking Action: Arts Practice and Community Service. (4) (Formerly numbered 177B.) Seminar, two hours; outside study, 10 hours. Required: course 1. Designed for juniors/seniors. Directed toward training in world arts and cultures through service projects designed by students in collaboration with selected community organizations and institutions. Reflection on impact of service on communities and theories. May be repeated once for credit. P/NP or letter grading.

180. Video Production in the Arts. (4) (Formerly numbered C127.) Lecture, one hour; laboratory, three hours. Fundamentals of video production: conceptualization, field recording (camera, lighting, sound, coverage), and editing (organizing raw footage, constructing a program, mastering finished tape). Emphasis alternates quarterly between ethnographic documentary and dance/choraloe. May be repeated once for credit. Concurrently scheduled with course C280. Letter grading.

181. Ethnography of Dance. (4) Lecture, four hours. Survey of graphic 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.

182. Dance and the Visual Media. (4) (Formerly numbered 128.) Lecture, four hours. Examination of aesthetic differences between dance, film, and video and exploration of the new aesthetic when they are combined. Analysis of the record and documentary dance film, choro-cinema, and impact of MTV, as well as integration of media with performance. Letter grading.

183. Film and Folklore. (4) (Formerly numbered CM183.) Lecture, three hours. Designed for seniors/seniors. Introduction to film criticism and folklore methodology. Topics include early examples of folklore on film, changing conceptions of folklore and uses of films about folklore, and examples of films by, with, and for folklorists. Concurrently scheduled with course C283. P/NP or letter grading.

185A. Introduction to MUSEOLOGY: MUSEUM COLLECTIONS AND ADMINISTRATION. (5) (Formerly numbered 165A.) Lecture, six hours. Introduction to history and functions of museums, tracing development to the present. Collection, organization, management, and conservation of objects and legal and ethical issues surrounding these practices. P/NP or letter grading.

185B. Introduction to MUSEOLOGY: MUSEUM EXHIBITIONS AND EDUCATION. (5) (Formerly numbered 165B.) Lecture, six hours. Required: course 185A. Conceptual development of exhibitions and formulation of educational and other goals for specified audi- ences. Design considerations, media applications, and installation process. P/NP or letter grading.

185C. INTRODUCTION TO MUSEOLOGY: SELECTED TOPICS. (4) (Formerly numbered 165C.) Discussion, six hours; individual study, six hours. Required: courses 185A, 185B. Students pursue projects in an area of museum operations, working with staff members and museum directors to produce papers on contemporary issues in museums. For example, one student might work under a curator and director to examine cultural property issues as they pertain to contemporary museums, following a suggested reading list. P/ NP or letter grading.

190. JUNIOR-YEAR PRE-PROPOSAL. (1) Lecture, 90 minutes. Required: course 90. Limited to World Arts and Cultures majors. Planning and execution of proposal for senior project, with attention to exploring resources of department and University as a whole. P/NP grading.

191A-191B. SENIOR PROJECT. (4-4) (Formerly numbered 190A-190B.) Lecture, four hours; outside study, eight hours. Required: course 190. 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/semia format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term. Letter grading.

192. REPERTORY TOUR ENSEMBLE. (2 or 4) (Formerly numbered 191.) Lecture, two hours; studio, four to six hours. Designed for World Arts and Cultures majors. Creation and presentation of performances in community with special emphasis on projects of touring companies with variable repertoire. May be repeated once. P/NP or letter grading.

193. PROJECTS IN WORLD ARTS AND CULTURES. (2 to 4) (Formerly numbered 192.) Laboratory, four to six hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

194. PERFORMANCE PRACTICUM. (1) (Formerly numbered 149.) Laboratory, four hours. Rehearsal and performance in selected community-based or theatrical work. May be repeated for credit without limitation. P/NP grading.

196. ADVANCED PRIVATE INSTRUCTION IN WORLD ARTS AND CULTURES. (2 to 8) (Formerly numbered 128.) Designated for seniors/seniors. Private or semiprivate instruction in a world arts practice with a distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for a maximum of 24 units. P/NP grading.

199. SPECIAL STUDIES IN WORLD ARTS AND CULTURES. (2 to 8) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Designed for juniors/seniors. Individual study in World Arts and Cultures majors. May be taken for a maximum of 8 units. P/NP or letter grading.

Graduate Courses

200. PROSEMINAR: STUDY OF CULTURE. (4) Seminar, three hours; outside study, nine hours. Introduction to history of culture concept in arts, humanities, and social sciences. Analysis of contemporary debates concerning ownership and use of world "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. 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, participant observation, oral history and interview techniques, performative dimensions of ethnographic research, ethics, and politics of ethnographic representation. S/U or letter grading.

203. PROSEMINAR: DANCE STUDIES. (4) Seminar, three hours; outside study, nine hours. Survey of theoretical and methodological issues in ethnographic study of performance in cultural context. Field documentation, participant observation, oral history and interview techniques, performative dimensions of ethnographic research, ethics, and politics of ethnographic representation. S/U or letter grading.
205. Folklore Theories and Methods. (4) Lecture, three hours; outside study, nine hours. Introductory course in history, analytical perspectives, and current trends, including research techniques in contemporary folkloristics. S/U or letter grading.

206. Folklore Seminar. (4) Seminar, three hours; outside study, nine hours. Variable topics. Detailed consideration of folkloristic genres and areas; historical period, and/or theoretical issue in field of folklore. May be repeated for credit. S/U or letter grading.

C209B. Dance in Native American Cultures. (4) (Formerly numbered 240C.) Lecture, four hours. Survey of Native American dance; role of dance in society, its cultural significance, and historical background. Concurrently scheduled with course C109B. Letter grading.

211A-211F. Advanced Choreography. (4 each) Lecture, two hours; laboratory, two hours. Theoretical aspects of advanced choreography for students who have reached the level of self-generation of substantial creative works. Refinement and realistic self-evaluation; critical counsel by acknowledged choreographers. S/U or letter grading.

215. Legend as Folklore, Culture, and Behavior. (3) (Formerly numbered 215B.) Lecture, four hours. Designed for graduate students. Examination of folkloristic, psychological, and sociocultural approaches to legends with special attention to texts versus narrative patterns and to meaning and significance of legends and legend telling, as well as applications of legend study to civil society (race and ethnic relations and public policy). S/U or letter grading.

216. Analyzing Narrative and Oral Performance. (5) (Formerly numbered M216.) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting individual narrators and interpreting their stories. How narrators conceptualize and perform narrative discourse, impact of audience and “situated event” on both narrating and “the story,” how experiences and values are communicated through narrative, modes of representing oral narrating, and politics of narrative and oral performance. S/U or letter grading.

220. Seminar: Culture and Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Variable topics in interdisciplinary study of expressive culture, arts, and performance in social and historical context; may be repeated for credit without limitation. S/U or letter grading.


C223. Arts of Identity: Survey of Expressive Cultures. (4) (Formerly numbered 224H.) Lecture, four hours; outside study, eight hours. Introduction to study of arts, performance, and creativity in cultural context. Special attention to relationship between arts and identity and to role of artists in cultural survival and transformation. Concurrently scheduled with course C123. S/U or letter grading.


225A-225B. Theories of Movement: Labananaly- sis. (4-4) Lecture, two hours; laboratory, two hours. Theories of Laban movement analysis as means for analyzing and describing human movement. Use of Laban movement analysis to increase movement observation skills and understand role of movement in dance, nonverbal behavior, and cross-cultural dance studies. Focus on complex movement patterns and timing. S/U or letter grading.

226. Advanced Studies in Notation. (2) Lecture, two hours. Selection of problems in direction of notated repertoire; principles of teaching, comparative notation systems, writing projects. S/U or letter grading.

C229. Food Customs and Symbolism. (4) (Formerly numbered CM229.) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to systems and symbolism in America. Topics include sensory realm, child rearing practices, foodsharing, food and identity, food and its emotional significance, aversions and taboos, adver- tising, changing food habits, and the American diet. Concurrently scheduled with course C129. S/U or letter grading.


CM240. Women Healers, Ritual, and Transforma- tion. (4) (Formerly numbered C240.) (Same as Women's Studies CM243.) Lecture, four hours; outside study, eight hours. Focus on role of women healers, historically and within contemporary culture-specific contexts. Examination of psychological functions served by rites of passage and healing rituals and role of arts in healing troubled communities. Concurrently scheduled with course CM140. S/U or letter grading.

C241. Carnival and Festivity. (4) (Formerly num- bered CM241.) Lecture, three hours; fieldwork, one hour. Examination of folkloreal, 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 the carnivalesque and politics of celebration. Concurrently scheduled with course C141. S/U or letter grading.

C242. Myth, Magic, and Mind. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Consideration of metaphor and symbol, reflexive anthropology, and notion of culture as text applied to such examples as trickster figures, mitori- cal devices including parable and irony, and arguably magical experience of the other and of the other's body to become animals. Concurrently scheduled with course C142. S/U or letter grading.

C243A. Production Arts Seminar. (4) (Formerly num- bered CM243A.) Seminar, two hours; discussion, two hours; laboratory, two hours. Examination and research of dance and performance/audience relationships in various historical periods and cultural settings. Impact of different aesthetic/directional approaches to theatrical production of dance. Exploration of selection of locale, style, aural and visual enhancements. Letter grading.


C243C. Production Arts Seminar. (4) (Formerly num- bered CM243C.) Seminar, four hours; laboratory, to be arranged. Examination of contemporary art world, in- cluding arts organizations, funding sources, social as- pects of arts production, support groups, public rela- tions and publicity. Letter grading.

C243D. Production Arts Seminar. (2) (Formerly num- bered CM243D.) Seminar, two hours; outside study, four hours. Corequisites: courses 441, 490. Topics from current problems of students preparing M.F.A. concert productions. Letter grading.

C245. Selected Topics in Dance Studies. (2 to 4) (Formerly numbered C297.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corpore- ality. Consult Schedule of Classes for topics to be of- fered in a specific term. May be repeated for credit without limitation. Concurrently scheduled with course C145. S/U or letter grading.

C246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for gradu- ate 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 ideology, aesthetics, theory, art, politics, in- tervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

C247A-C247B. Movement Dynamics and Group Process. (2-2) (Formerly numbered C260A-C260B.) Lecture, one hour; laboratory, three hours; outside study, two hours. Designed for graduate students. Exploration of individual and group dynamics within context of an ongoing dance/movement therapy group. Courses must be taken in sequence. Concurrently scheduled with courses C147A-C147B. S/U or letter grading.

C248. Dance as Healing and Therapy. (4) (Former- ly numbered CM248.) Lecture, two hours; laboratory, two hours; outside study/research, eight hours. De- signed for graduate students. Introduction to histori- cal, theoretical, methodological, and ethical consider- ations involved in practice of dance as healing and therapy. Concurrently scheduled with course C148. Letter grading.

C252. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; out- side 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 the mid- 20th century. Contemporary developments, both his- torical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C152. S/U or letter grading.

C254. Dance and Folklore. (4) (Formerly numbered CM254.) Lecture, four hours. Consideration of vernac- ular tradition as a site for cultural configuration, social construction, representation, and display of national, ethnic, and other affiliation identities. Emphasis on vari- ous European and European-American dance idioms. Concurrently scheduled with course C154. S/U or letter- grading.

C255. Self and Culture. (4) (Formerly numbered 255.) Lecture, two hours; laboratory, two hours; out- side study, eight hours. Designed for graduate stu- dents. Examination of critical developmental processes and situational factors contributing to construction of sense of self and emergence of creativity and subjective relatedness in different cultural contexts. Concurrently scheduled with course C155. S/U or letter grading.

C264. Public Writing in the Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalis- tic approaches to writing about the arts, with eye to- ward shaping critique of public writing practices and putting that critique into practice. Exploration of new modes of (and venues for) writing that rebalance power differen- tial between art makers and commentators. Concurrently scheduled with course C164. S/U or letter grading.

C268. Beyond Academia: Making Art in the Real World. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Focus on un- derstanding bureaucratic structures and regional his- tories conditioning creative lives in the real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course C168. S/U or letter grading.
C273. Sound Resources for Performance. (4) (Formerly numbered C220.) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for graduate students. Exploration of music, in search of the interesting, new, and unusual. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and patterns, body (clapping, stepping, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C173. S/U or letter grading.

C275. Applied Folklore. (4) (Formerly numbered CM275.) Lecture, four hours. Designed for graduate students. Introduction to methods and issues in application of folklore studies to such areas as education, health, museums, organization development, tourism, environmental planning, economic and community development, aging, art therapy, and public sector folklore. Concurrently scheduled with course C175. S/U or letter grading.

C280. Video Production in the Arts. (4) (Formerly numbered C227,) Lecture, one hour; laboratory, three hours. Fundamentals of video production: conceptualization, field recording (camera, lighting, sound, coverage), and editing (organizing raw footage, constructing a program, mastering finished tape). Emphasis alternates quarterly between ethnographic documentary and dance/choreography. May be repeated once for credit. Concurrently scheduled with course C180. S/U or letter grading.

281A-281B. Advanced Studies in Dance Ethnology. (4-4) (Formerly numbered 280A-280B.) Lecture, four hours. Dance viewed as an aspect of culture and human behavior. S/U or letter grading. 281A. Survey of literature of the field of dance ethnology and in related fields of anthropology, folklore, performance studies, and sociology. 281B. Advanced studies in methodologies and theories to develop dance-focused ethnographic research.

C283. Film and Folklore. (4) (Formerly numbered CM283.) Lecture, three hours. Designed for graduate students. Introduction to film criticism and folklore methodology. Topics include early examples of folklore on film, changing conceptions of folklore and uses of films about folklore, and examples of films by, with, and for folklorists. Concurrently scheduled with course C183. S/U or letter grading.

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

400. Directed Professional Activities. (2 to 8) Lecture, to be arranged. Directed projects in professional editing, bibliography, filmography, videography, conference and festival direction, and other professional activities. May not be applied toward M.A. degree requirements. May be repeated. S/U grading.

C409A. Advanced World Arts Practices in North America and Diaspora. (2) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from North America, including the U.S., Canada, and Native America. Variable topics, such as Native American dance, jazz, and jazz-tap, in cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C109A. S/U or letter grading.

C413A. Advanced World Arts Practices in Europe and Diaspora. (2) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including the U.S. Variable topics, such as flamenco, Balkan folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C113A. S/U or letter grading.

C415. Advanced Modern/Postmodern Dance. (2) (Formerly numbered C402A.) Studio, six hours. Requirements: course 65. Studies in advanced modern/postmodern dance technique, with emphasis on performing skills. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U or letter grading.

441. Dance Production Practicum. (2 to 4) Laboratory, four to eight hours (one or two hours may be individualized consultation). Skills and understanding of production components in roles of stage manager, production assistants, and producer. May be repeated for a maximum of 8 units. S/U grading.

451. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Culture Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

452. Directed Field Study in Dance Education. (2 to 8) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in the community school or other approved site. No more than 4 units may be applied toward M.A. degree requirements. S/U grading.

460A-460B-460C. Clinical Internship Supervision. (4-4-4) Lecture, two hours; discussion, two hours; outside study, eight hours. Practicum dealing with student internship: movement/observation, therapeutic goals, therapeutic process, and other clinical uses. S/U grading.

480. Seminar: Research Topics. (2) Seminar, two hours. Forum in which faculty, students, and visitors make presentations and obtain feedback on research being planned, conducted, or recently completed. Students required to make a presentation each term they are enrolled for credit. May be repeated for a maximum of 8 units. S/U grading.

490. Projects in Choreography and Performance. (2 to 8) Tutorial, one three-hour rehearsal per unit per week minimum. Creation, casting, and rehearsing of culminating 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 a maximum of 16 units. S/U or letter grading.

496. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours; outside study, three to 12 hours. Private or semiprivate instruction with a distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for a maximum of 24 units. S/U grading.

498. Professional Internship in Dance. (4, 8, or 12) Seminar, to be arranged. Full- or part-time supervised fieldwork. Limited to M.F.A. students. Internship in dance, theater, film, or television organization. Participation in creative, administrative, or technical work of professionals in their specialties. S/U or letter grading.

596A. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

596R. Directed Study or Research in a Hospital or Clinic. (2 to 6) Tutorial, to be arranged. S/U grading.

597. Preparation for Master's Comprehensive Examination or Ph.D. Qualifying Examination. (2 to 8) Tutorial, to be arranged. Preparation for M.A. or M.F.A. comprehensive examination or Ph.D. qualifying examination. 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, disability, age, medical condition (cancer-related), ancestry, marital status, citizenship, sexual orientation, or status as a Vietnam-era veteran or special disabled veteran. The University also prohibits sexual harassment. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

Inquiries regarding the University’s student-related nondiscrimination policies may be directed to the UCLA Campus Counsel, 3149 Murphy Hall, Box 951405, Los Angeles, CA 90095-1405, (310) 825-4042. Speech- and hearing-impaired persons may call TTY (310) 206-6083.

Inquiries regarding nondiscrimination on the basis of disability covered by the Americans with Disabilities Act (ADA) of 1990 or Section 504 of the Rehabilitation Act of 1973 may be directed to Karen Henderson-Winge, Assistant Coordinator of ADA and 504 Compliance, A239 Murphy Hall, UCLA, Box 951405, Los Angeles, CA 90095-1405, voice (310) 825-7906, TTY (310) 825-4042; email: khan043@ucla.edu; http://www.saonet.ucla.edu/ada.htm.

Students may complain of any action which they believe discriminates against them on the ground of race, color, national origin, marital status, sex, sexual orientation, disability, or age and may contact the Office of the Dean of Students, 1206 Murphy Hall, and/or refer to Section 111.00 of the University of California Policies Applying to Campus Activities, Organizations, and Students (available in 1206 Murphy Hall or at http://www.ucop.edu/ucophome/wnnews/aospol/toc.html) for further information and procedures.

Student Conduct Policies

Students are members of both society and the academic community with attendant rights and responsibilities. Students are expected to comply with the general law, University policies, and campus regulations. For further information, refer to the University of California Policies Applying to Campus Activities, Organizations, and Students at http://www.ucop.edu/ucophome/wnnews/aospol/toc.html and the UCLA Student Conduct Code at http://www.deanofstudents.ucla.edu/studentconductcode.pdf.

A. Jurisdiction

The University shall have jurisdiction over student conduct that occurs on University property, or in connection with official University functions whether on or off University property, or in connection with other official University functions. The University will not routinely invoke its disciplinary processes over student conduct that occurs off campus except in connection with an official University function, the University shall have discretion to exercise jurisdiction over conduct that occurs on campus and that would violate student conduct and discipline policies or regulations if the conduct had occurred on campus when (1) the alleged misconduct occurred both on and off campus; or (2) the alleged misconduct involved academic work or the forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

Specifically, the University may choose to exercise jurisdiction over off-campus incidents under item 1 above where the alleged misconduct involves:

a. Physical abuse, including but not limited to rape, sexual assault, sex offenses, and other physical assault; threats of violence; or conduct that threatens the health or safety of any person;

b. Stalking (as defined in Section 102.10 of the University of California Policies Applying to Campus Activities, Organizations, and Students);

c. Sexual harassment (as defined in Section 102.09 of the University of California Policies Applying to Campus Activities, Organizations, and Students);

d. Hazing (as defined in Section 102.12 of the University of California Policies Applying to Campus Activities, Organizations, and Students).

In determining whether or not to exercise off-campus jurisdiction in cases under item 1 above, 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 evidence, including the testimony of witnesses; or whether the off-campus conduct is part of a series of actions that occurred both on and off campus.

This section is intended only to provide guidance for the exercise of discretion by the University in invoking its jurisdiction over conduct that occurs off campus. It may not be relied on by any student charged under this section to create any rights, substantive or proce-
dural, or as a basis for a challenge to the exercise of the University's jurisdiction.

B. Grounds for Discipline

The chancellor may impose discipline for violation of, or an attempt to violate, any University policies or campus regulations. The lack of intent to commit a violation is not a factor in determining if a violation occurred; however, the lack of intent may be considered a mitigating factor in determining the appropriate sanction if it has been determined that a violation has occurred. Violations or attempted violations include, but are not limited to, the following types of misconduct (Sections 102.01 through 102.26 below are adapted from the University of California Policies Applying to Campus Activities, Organizations, and Students):

C. Types of Misconduct

102.01: Academic Dishonesty. All forms of academic misconduct, including but not limited to cheating, fabrication, plagiarism, multiple submissions, or facilitating academic dishonesty. For the purposes of this 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; or helping another student commit an act of academic fraud; 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.

102.01c: Plagiarism. Plagiarism includes, but is not limited to, the use of another's words or ideas as if they were one's own; including but not limited to representing, either with the intent to deceive or by the omission of the true source, part of or an entire work produced by someone other than the student, obtained by purchase or otherwise, as the student's original work; or representing the identifiable but altered ideas, data, or writing of another person as if those ideas, data, or writing were the student's original work.

102.01d: Multiple Submissions. Multiple submissions includes, but is not limited to, the resubmission 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 second course, without the informed permission/consent of the instructor of the second course; or the submission by a student of any work submitted for credit in identical or similar form in one course to fulfill the requirements of a concurrent course, without the permission/consent of the instructors of both courses.

102.02: 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 or to University officials acting in the performance of their duties.

102.03: Forgery. Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification. Section 102.03 applies to any individual for whom the University maintains records, regardless of current student status.

102.04: Theft. Theft of, conversion of, misappropriation of, or damage to or destruction of any property of the University or property of others while on University premises or at official University functions; or possession of any property of the University or others stolen while on University premises or at official University functions; or possession of any property when the student had knowledge or reasonably should have had knowledge that it was stolen.

102.05: Computers. 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, and interference with the work of others and with the operation of computer and electronic communications facilities, systems, and services. Violation of the University of California Electronic Communications Policy (available at http://www.ucop.edu/ucophome/policies/ec), or of any UCLA acceptable or allowable use policy, is also considered a violation of Section 102.05.

102.06: Unauthorized Conduct. 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. Sale of or unauthorized transfer of commencement tickets.

102.07: Other University Policies, Regulations, or Rules.

102.07a: University-Owned Housing. Violation of policies, regulations, or rules governing University-owned, -operated, or -leased housing facilities or other housing facilities located on University property.

102.07b: Parking Services. Violation of policies, regulations, or rules governing University parking services or University-owned or -operated parking facilities.

102.08: Physical Abuse. Physical abuse, including but not limited to rape, sexual assault, sex offenses, and other physical assault; threats of violence; or conduct that threatens the health or safety of any person.

102.08a: Rape. For the purposes of this Code, rape refers to "rape" as defined by the California Penal Code (as it may be amended from time to time). Among other acts, the Penal Code prohibits the following acts:

1. Sexual intercourse against a person's will, accomplished by force or threats of bodily injury

2. Sexual intercourse against a person's will where the person has reasonable fear that she (or he) or another will be injured if she (or he) does not submit to the intercourse

3. Sexual intercourse where the person is incapable of giving consent, or is prevented from resisting, due to alcohol or drugs, and this condition was known, or reasonably should have been known by the accused

4. Sexual intercourse where the person is incapable of resisting because she (or he), at the time, is unconscious or asleep, and this is known to the accused

102.08b: Sexual Assault. The act of sexual assault includes forced sodomy (anal intercourse); forced oral copulation (oral-genital contact); rape by foreign object (forced penetration by a foreign object, including a finger); and sexual battery (the unwanted touching of an intimate part of another person for the purpose of sexual arousal). These also include situations when the accused sexually assaults a complainant incapable of giving consent, including where the complainant is prevented from resisting due to alcohol or drugs and this condition was known, or reasonably should have been known by the accused. NOTE: For the purpose of this regulation, students should understand that

1. Forced intercourse or other unwanted sexual contact is defined as rape or sexual assault whether the assailant is a stranger or an acquaintance of the complainant

2. Intoxication of the assailant shall not diminish the assailant's responsibility for sexual assault

102.09: Sexual Harassment. Unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature constitute sexual harassment when

a. A student who is also an employee of the University makes submission to such conduct, either explicitly or implicitly, a term or condition of instruction, employment, or participation in other University activity over which the student has control by virtue of his or her University employment; or

b. A student who is also an employee of the University makes submission to or rejection of such conduct a basis for evaluation in making academic or personnel decisions affecting an individual, when the student has control over such decisions by virtue of his or her University employment; or

c. Such conduct by any student has the purpose or effect of creating a hostile and intimidating environment sufficiently severe or pervasive to substantially impair a reasonable person's participation in University programs or activities, or use of University facilities

In determining whether the alleged conduct constitutes sexual harassment, consideration
shall be given to the record of the incident as a whole and to the totality of the circumstances, including the context in which the alleged incidents occurred.

102.10: Stalking. Stalking 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.

102.11: Harassment. Harassment by a student of any person. For the purposes of this Code, harassment

a. Is the use, display, or other demonstration of words, gestures, imagery, or physical materials, or the engagement in any form of bodily conduct, on the basis of race, color, national or ethnic origin, alienage, sex, religion, age, sexual orientation, or physical or mental disability that has the effect of creating a hostile and intimidating environment sufficiently severe or pervasive to substantially impair a reasonable person’s participation in University programs or activities, or use of University facilities;
b. Must target a specific person or persons; and
c. Must be addressed directly to that person or persons

102.12: Hazing. Participation in hazing or any method of initiation or preinitiation into a campus organization or any 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 Conduct. Disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assemblage.

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 their 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. Unlawful manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances, identified in Federal and State laws or regulations.

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.

102.19: Destructive Devices. Possession, use, storage, or manufacture of explosives, firebombs, or other destructive devices.

102.20: Weapons. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury.

102.21: Violation of Disciplinary Conditions. Violation of the conditions contained in the terms of a disciplinary action imposed under this Code.

102.22: Violation of Emergency or Interim Suspension Conditions. Violation of the conditions contained in a written Notice of Emergency or Interim Suspension issued pursuant to Section IV of this Code.

102.23: Unauthorized Use or Sale of Course Notes. Selling, preparing, or distributing for any commercial purpose course lecture notes or 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 course notes or recordings by a student is a violation of this Code whether or not it was the student or someone else who prepared the notes or recordings.

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 in writing. The unauthorized sale or commercial distribution of course notes or recordings by a student is a violation of this Code whether or not it was the student or someone else who prepared the notes or recordings.

102.24: Violation of Campus Restraining Order. Violation of the conditions contained in a written Campus Restraining Order issued pursuant to Section III.A.2.a.(1) of this Code.

102.25: University Properties. Using University properties for the purpose of organizing or carrying out unlawful activity.


Rape and Other Forms of Sexual Assault

UCLA does not tolerate sexual assault in any form, including rape, acquaintance rape, or date rape. Where there is probable cause to believe that the campus regulations prohibiting sexual assault have been violated, the campus pursues disciplinary actions which may include sanctions up to and including dismissal from the University.

A student charged with sexual assault can be prosecuted under California criminal statutes and disciplined under the campus student conduct policies and regulations. Even if the criminal justice authorities choose not to prosecute, the campus can pursue disciplinary action.

Definitions

For detailed definitions of rape and sexual assault, refer to Sections 102.08a and 102.08b of the Student Conduct Policies listed above.

If a Person Has Been Raped or Sexually Assaulted

Those who believe that they are the victims of rape or other forms of sexual assault should

1. Immediately call the police department.

If possible, call 911 or the UCLA Police Department at (310) 825-1491

2. Get medical attention. Campus police will provide transportation to the Santa Monica-UCLA Medical Center Emergency Room for emergency medical treatment and evidence collection. A counselor from the Rape Treatment Center will be available at that time, free of charge.

Utilize campus and community support services:

1. Contact a Rape Services Consultant (RSC) at the Center for Women and Men. RSCs have expertise in working with victims of rape or sexual assault. 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 through the Office of the Dean of Students. RSCs are available to assist UCLA faculty, staff, and students regardless of where or when the assault occurred. For assistance, contact the Center for Women and Men at (310) 825-3945 or go to B44 Student Activities Center and ask to speak to an RSC.

2. Contact the Rape Treatment Center at Santa Monica-UCLA Medical Center (310-319-4000) for free emergency medical treatment and counseling services.

Campus Discipline Process When the Assailant Is a Student

Those who believe that they are the victims of rape or other forms of sexual assault by a student on University properties or in conjunction with an official University function may file a complaint directly with the Office of the Dean of Students, 1206 Murphy Hall, http://www.deanofstudents.ucla.edu.

Cases referred to the Office of the Dean of Students are treated under the hearing procedures set forth in the UCLA Student Conduct Code (http://www.deanofstudents.ucla.edu/studentconductcode.pdf). Where the allegation is of rape or other forms of sexual assault, and the case is referred to the Student Conduct
Committee, the following additional procedures shall apply:

1. The complainant shall be entitled, for support, to have up to two persons of the complainant’s choice accompany the complainant to the hearing. A support person may be called as a witness, and the fact that he or she is to act as a witness shall not preclude that person’s attendance throughout the entire hearing. If a support person is also a witness, the committee chair (or the hearing officer) may require him or her to testify prior to the complainant. Neither of these persons shall be entitled to represent or defend the complainant. Similar rights shall be afforded to the accused student.

2. The complainant shall have the right to be present during the entire hearing, notwithstanding the fact that the complainant is to be called as a witness.

3. Evidence of the complainant’s past sexual history, including opinion evidence, reputation evidence, and evidence of specific instances of the complainant’s sexual conduct, shall not be admissible by the accused student unless the committee chair or hearing officer makes a specific finding of relevance after an offer of proof by the accused student. Under no circumstances is past sexual history admissible to prove consent. The offer of proof must be made and resolved by the panel before the complainant testifies.

4. The hearing shall be closed to spectators.

Harassment

Sexual Harassment

Every member of the campus community should be aware that the University will not tolerate sexual harassment and that such behavior is prohibited both by law and by University policy.

Definitions

For detailed definitions of sexual harassment, refer to Section 102.09 of the Student Conduct Policies listed above.

Complaint Resolution

Experience has demonstrated that many complaints of sexual harassment can be effectively resolved through informal intervention. Individuals who experience what they consider to be sexual harassment are advised to confront the alleged offender immediately and firmly.

Additionally, an individual who believes that she or he has been sexually harassed may contact the alleged offender’s supervisor and/or a Sexual Harassment Information Center counselor for help and information regarding sexual harassment complaint resolution or grievance procedures at one of the locations listed below as determined by the complainant’s status at the University at the time of the alleged incident:

1. Campus Human Resources/Employee and Labor Relations, Manager, 200 UCLA Wilshire Center, (310) 794-0860
2. Center for Student Programming, Associate Director, 105 Kerckhoff Hall, (310) 825-7041
3. Center for Women and Men, Director, B44 Student Activities Center, (310) 825-3945
4. Chancellor’s Office, Sexual Harassment Coordinator, 2241 Murphy Hall, (310) 206-3417
5. David Geffen School of Medicine, Human Resources Director, 924 Westwood Boulevard, Suite 540, (310) 794-6802; Senior Associate Dean of Student Affairs/Graduate Medical Education, 12-139 Center for the Health Sciences, (310) 825-6774; Dean’s Office, Special Projects Director, 12-138 Center for the Health Sciences, (310) 794-1958
6. Graduate Division, Office Manager, 1237 Murphy Hall, (310) 825-3269
7. Healthcare Human Resources, Employee Relations Manager, 400 UCLA Wilshire Center, (310) 794-0500
8. Lesbian, Gay, Bisexual, and Transgender Campus Resource Center, Director, B36 Student Activities Center, (310) 206-3628
9. Neuropsychiatric Hospital, Administration/Human Resources Associate Director, B7-370 NPI&H, (310) 206-5258
10. Office of the Dean of Students, Assistant Dean of Students, 1206 Murphy Hall, (310) 825-3871
11. Office of Ombuds Services, 105 Strathmore Building, (310) 825-7627
12. Office of Residential Life, Judicial Coordinator, Residential Life Building, (310) 825-3401
13. Santa Monica-UCLA Medical Center, Healthcare Human Resources Director, 1250 16th Street, Santa Monica 90404, (310) 319-4351
14. School of Dentistry, Assistant Dean, Student and Alumni Affairs, A0-111 Dentistry, (310) 825-7146; Student and Alumni Affairs Counselor, A0-111 Dentistry, (310) 794-6621
15. Staff Affirmative Action Office, Staff Affirmative Action Office, 205 Uebelroth Building, (310) 825-0751
16. Student Legal Services, Director, 70 Dodd Hall, (310) 825-9894
17. Student Psychological Services, Director, 2423 Math Sciences, (310) 825-0768
18. UCLA Extension, Human Resources Director, 629 UNEX Building, (310) 825-4287; Student Services Director, 214 UNEX Building, (310) 825-2656

Other Forms of Harassment

The University strives to create an environment that fosters the values of mutual respect and tolerance and is free from discrimination based on race, ethnicity, sex, religion, sexual orientation, disability, age, and other personal characteristics. Certainly harassment, in its many forms, works against those values and often corrodes a person’s sense of worth and interferes with one’s ability to participate in University programs or activities. While the University is committed to the free exchange of ideas and the full protection of free expression, the University also recognizes that words can be used in such a way that they no longer express an idea, but rather injure and intimidate, thus undermining the ability of individuals to participate in the University community. The University of California Policies Applying to Campus Activities, Organizations, and Students (hereafter referred to as Policies; http://www.ucop.edu/ucophome/uwnews/aospol/toc.html) 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 Section 102.08 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 the Universitywide Student Conduct Harassment Policy (http://www.deanofstudents.ucla.edu), students may be subject to University discipline for misconduct which may consist solely of expression. Copies of this Policy are available in the Office of the Dean of Students, 1206 Murphy Hall, or in any of the Harassment Information Centers listed below:

1. Center for Women and Men, B44 Student Activities Center, (310) 825-3945, http://www.thecenter.ucla.edu
Complaint Resolution
One of the necessary measures in our efforts to ensure 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 any of the Harassment Information Centers listed immediately above.

In addition to providing support for those who believe they have been victims of harassment, Harassment Information Centers offer persons the opportunity to learn about the phenomena of harassment and intimidation; to understand the formal and informal mechanisms by which misunderstandings may be corrected and, when appropriate, student perpetrators may be disciplined; and 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 can be found in the UCLA Faculty Handbook (copies are available in the Academic Personnel Office, 3109 Murphy Hall, and at http://www.apo.ucla.edu/facultyhandbook/). Part IIA 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, ethnic origin, national origin, ancestry, marital status, medical condition, 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.

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 and Disciplinary Procedures 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 a nonresident tuition fee 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.

Law Governing Residence
The rules regarding residence for tuition purposes at the University of California are governed by the California Education Code and implemented by Standing Orders of The Regents of the University of California. Under these rules adult citizens and certain classes of aliens can establish residence for tuition purposes. There are particular rules that apply to the residence classification of minors (see below).

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, or R. 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 their residential ties with their former state of residence and establishing those ties with California. If these steps are delayed, the one-year durational period is extended until students have demonstrated both presence and intent for one full year. If their parents are not California residents or students were not enrolled in a regular session at any University of California campus prior to fall 1993, they are required to be financially independent in order to be a resident for tuition purposes. Their residence cannot be derived from their spouse or their parents.

Requirements for Financial Independence
Students are considered “financially independent” if one or more of the following apply: (1) they are at least 24 years of age by December 31 of the calendar year for which they are requesting residence classification; (2) they are a veteran of the U.S. Armed Forces; (3) they are a ward of the court or both parents are deceased; (4) they have legal dependents other than a spouse; (5) they are married, or 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 those years and the current year.

Note: Financial dependence is not a factor in determining residence status for graduate student instructors, graduate student teaching assistants, research assistants, junior specialists, postgraduate researchers, graduate student researchers, and teaching associates who are employed 49 percent or more of full time or awarded the equivalent in University-administered funds (e.g., grants, stipends, fellowships) in the term for which classification is sought.

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 military service, (3) obtaining a California driver’s license or, if they do not drive, a California Identification Card, (4) obtaining California vehicle registration, (5) paying California income taxes as a resident, including taxes on income earned outside California from the date they establish residence, (6) establishing a California residence in which they keep their personal belongings, and (7) licensing for professional practice in California.

The absence of these indicia in other states during any period for which students claim residence can also serve as an indication of their intent. Documentary evidence is required, and all relevant indications are considered in determining the classification. Intent is questioned if students return to their prior state of residence when the University is not in session.

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 which precludes them from establishing domicile in the U.S., students may establish their own residence when both their parents are deceased and a legal guardian has not been appointed. If they derive California residence from a parent, that parent must satisfy the one-year durational residence requirement.

Specific Rules Applying to Minors

Divorced or Separated Parents

Minor U.S. citizens or eligible aliens may be able to derive California resident status from a California resident parent if they move to California to live with that parent on or before their 18th birthday. If they begin residing with their California parent after their 18th birthday, they are treated like any other adult student coming to California to establish residence.

Parent of Minor Moves from California

Students may be entitled to resident status if they are minor U.S. citizens or eligible aliens whose parent(s) was a resident of California who left the state within one year of the residence determination date if (1) they remained in California after their parent(s) departed, (2) they enroll in a California public postsecondary institution within one year of their parent(s) departure, and (3) once enrolled, they maintain continuous attendance in that institution. Financial independence is not required in this case.

Two-Year Care and Control

Students under the age of 19 may be entitled to resident status if they are U.S. citizens or eligible aliens and they have lived continuously with an adult who is not their parent for at least two years prior to the residence determination date. The adult with whom they are living must have been responsible for their care and control for the entire two-year period and must have been residing in California during the one year immediately preceding the residence determination date.

Self-Support

If students are U.S. citizens or eligible aliens and are either a minor or age 18 and 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 Tuition

Member of the Military

If students are members of the U.S. military stationed in California on active duty, unless they are assigned for educational purposes to a state-supported institution of higher education, they may be exempt from the nonresident tuition fee until they have lived in California long enough to become a resident. 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.

Spouse or Other Dependents of Military Personnel

Students are exempt from payment of the nonresident tuition fee if they are a spouse or a natural or adopted child who is a dependent of a member of the U.S. military stationed in California on active duty. The exemption is available until they have lived in California long enough to become a resident. Students must petition for a waiver of the nonresident tuition fee each term they are eligible. If they are enrolled in an educational institution and the member of the military 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 military retires from active duty immediately after having served in California on active duty, they may retain this exemption under conditions listed above.

Child or Spouse of Faculty Member

To the extent funds are available, if students are an unmarried dependent child under age 21 or the spouse of a member of the University faculty who is a member of the Academic Senate, they may be eligible for a waiver of the nonresident tuition fee. Confirmation of the faculty member’s membership on the Academic Senate must be secured each term this waiver is granted.

Child or Spouse of University Employee

Students may be entitled to resident classification if they are the child or the spouse of a full-time University employee whose assignment is outside California (e.g., Los Alamos Scientific Laboratory). Their parent’s or spouse’s employment status with the University must be ascertained each term.

Child of Deceased Public Law Enforcement or Fire Suppression Employee

Students may be entitled to a waiver of the nonresident tuition fee if they are the child 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 the nonresident tuition fee 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 the nonresident tuition fee.

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 the nonresident tuition fee.

Student Athlete in Training at the U.S. Olympic Training Center, Chula Vista

Any amateur student athletes in training at the U.S. Olympic Training Center in Chula Vista may be exempt from the nonresident tuition fee until they have resided in the state the minimum time necessary to become a resident.

Graduate of a California High School

Students who attended high school in California for three or more years (9th grade included) and graduated from a California high school (or attended the equivalent) may be exempt from the nonresident tuition fee. They are not eligible for the exemption if they are a nonimmigrant alien.

Surviving Dependents of California Residents Killed in the September 11, 2001, Terrorist Attacks

Students who are surviving dependents of California residents killed in the September 11, 2001, terrorist attacks may be exempt from the nonresident tuition fee.

Recipients of the Congressional Medal of Honor and Their Children under Age 27

Congressional Medal of Honor recipients and their children under age 27 may be exempt from the nonresident tuition fee.

Temporary Absences

If persons are nonresident students who are in the process of establishing a residence for tuition purposes and they return to their former home during noninstructional periods, their presence in the state is presumed to be solely for educational purposes and only convincing evidence to the contrary rebuts this presumption. Students who are in the state solely for educational purposes are NOT classified as residents for tuition purposes regardless of the length of their stay.

If persons are students who have been classified as residents for tuition purposes and they leave the state temporarily, their absence could result in the loss of their California residence. The burden is on students (or their parents if they are minors) to verify that they did nothing inconsistent with their claim of a continuing California residence during their absence. Steps that students (or their parents) should take to retain a California residence include the following:

1. Continue to use a California permanent address in all records—educational, employment, military, etc.

2. Continue to satisfy California tax obligations. If students are claiming California residence, they are liable for payment of income taxes on their total income from the date they establish their residence in the state, including income earned in another state or country.

3. Retain a California voter’s registration and vote by absentee ballot.

4. Maintain a California driver’s 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 Resident Classification

Students may obtain a petition at 1113 Murphy Hall for a change of classification from nonresident to resident status. All changes of status must be initiated at least three weeks in advance of the fee payment deadline for the applicable term.

Time Limitation 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 they concealed information or furnished false information and were classified incorrectly as a result, they are also subject to University discipline. Resident students who become nonresidents must immediately notify the residence deputy.

Inquiries and Appeals

Inquiries regarding residence requirements, determination, and/or recognized exceptions should be directed to the Residence Deputy, Office of the Registrar, 1113 Murphy Hall, 405 Hilgard Avenue, Los Angeles, CA 90095-1429 (310-825-3447; http://www.registrar.ucla.edu/faq/res.htm) or to the Senior Paralegal—Residence Matters, 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.

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. Any student, following a final decision on residence classification by the residence deputy, may appeal in writing to the senior paralegal within 45 days of notification of the residence deputy’s final decision.

Privacy Notice

All of the information requested on the Statement of Legal Residence form is required (by the authority of Standing Order 110.2 (a)-(d) of The Regents of the University of California) 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. Students have the right to inspect University records containing the residence information requested on the form.

Financial Aid Minimum Progress Standards

Federal regulations require UCLA to establish, publish, and apply standards of satisfactory academic progress for financial aid eligibility. Students who fail to meet minimum progress standards become ineligible to receive financial aid until they are in compliance with the standards. If, during any term, students expect they cannot meet the satisfactory academic progress requirements listed below, they should contact the Financial Aid Office immediately for further advising.

Undergraduate Students

Qualitative Standard

The qualitative standard is enforced by the College or school. Students are notified by their academic department if they fail below the required grade-point average (GPA).

Quantitative Standard

This standard is enforced by the Financial Aid Office on the basis of the number of units (including remedial courses) successfully completed within any given number of terms, including summer. It may differ from the College/school requirement.

All students receiving aid as full-time students must be enrolled in at least 12 units in order to obtain funds. To be eligible for financial aid as full-time students, they must successfully complete at least 24 units in their first academic year at UCLA to maintain satisfactory academic progress. Thereafter, students must successfully complete 55 units by the end of the sixth term, 86 units by the end of the ninth term, 117 units by the end of the twelfth term, 148 units by the end of the fifteenth term, and 180 units by the end of the eighteenth term.

After 18 terms of enrollment as a full-time student or the equivalent as a part-time student, no further need-based financial aid is granted. The measurement of progress occurs at the end of each Winter Quarter. The schedule above is adjusted appropriately for students ending an academic year with a different number of terms completed than is listed above. If students enter UCLA in advanced standing, the number of terms for which they are eligible for aid is reduced proportionally to the number of transfer units credited to their record. For ex-
ample, students who are credited with 90 transfer units would have only 12 terms of financial aid eligibility as an undergraduate at UCLA.

If persons are continuing students at UCLA at the time they apply for financial aid, their progress is measured by the satisfactory academic progress chart to determine their eligibility (i.e., they must have successfully completed 55 units if they attended UCLA for six terms). They would then have only 12 terms of financial aid eligibility.

**Nonstandard Enrollment**

Progress for students approved for part-time enrollment by the Registrar's Office is measured by a modified schedule. Part-time students should inform the Financial Aid Office of their enrollment arrangements so their aid can be adjusted accordingly.

**Successful Completion**

To successfully complete units, students must receive a grade of A, B, C, D, or P (S for graduate students) in a course. Grades of F, I, NP (U for graduate students), NR (No Report), and DR (Deferred Report) do not earn completed units. An I or DR grade that is replaced with a passing grade does earn units.

**Withdrawal and Cancellation**

Withdrawal after the first day of classes during a term counts as a term attended when determining overall term and unit count eligibility, unless students do not attend any classes for the given term and receive a 100 percent refund of all fees. Cancellation of registration on or before the first day of classes does not count as a term attended when determining term or unit count eligibility. Administrative cancellation does not count toward the overall term or unit count eligibility.

**Disqualification and Reinstatement**

The Financial Aid Office monitors satisfactory progress annually after Winter Quarter grades are recorded. Progress is measured according to the number of terms students have attended and the number of units they have successfully completed.

Students not meeting the requirements shown on the schedule may receive a warning letter or have their financial aid suspended. Once deficiencies are satisfied, financial aid may be reinstated.

Financial aid eligibility is reinstated for the term following the term in which students reestablish compliance with the units-per-term schedule. For example, if they successfully complete 16 units in Fall Quarter and therefore make up the deficiency, they become eligible for financial aid in Winter Quarter. Financial aid is then awarded on the basis of their need and the availability of funds.

**Appeal Process**

Students who fail to meet the satisfactory academic progress standards because of debilitation, illness, prolonged hospitalization, death in the immediate family, or other such mitigating circumstances may appeal their disqualification.

To appeal, students should submit a letter and supporting documentation to the Financial Aid Appeal Committee explaining the circumstances and how they affected their ability to meet the requirements. The committee evaluates the request based on the rationale and evidence provided.

**Graduate Students**

**Qualitative Standard**

The qualitative standard is enforced by the dean of the Graduate Division in consultation with the department.

**Quantitative Standard**

Students must successfully complete at least 8 units per term of enrollment to be eligible for financial aid as full-time students. Approved study loads of less than 8 units result in proportionally reduced aid for that term and are charged against the maximum period of eligibility at the appropriate proportional rate.

**Disqualification and Appeal Process**

If students fail to meet the qualitative and quantitative requirements, their financial aid is discontinued until the deficiencies are made up. Appeals are reviewed by their academic department, the dean of the Graduate Division, and/or the Financial Aid Appeal Committee.

**Period of Eligibility**

The degree program to which students are admitted determines the maximum number of terms for which they can receive need-based financial aid. Terms for which no need-based aid is received are considered when determining the remaining number of terms of financial aid eligibility.

Students who are in a credential program or a professional master's program (other than Master of Fine Arts) are eligible for a maximum of nine terms of need-based financial aid.

Students who are in a Master of Fine Arts program are eligible to apply for aid for the first 12 terms of enrollment. If students are in an M.A. or M.S. program, a doctoral program, or a combination master's/doctoral program, their eligibility expires after 27 terms of enrollment. Students who change their program may be accommodated through an extension of terms of eligibility. The extension should be secured at the time the program change is made.

**Professional Schools**

Students attending the Schools of Dentistry, Law, and Medicine 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 cheating, the suspected infraction is 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 grade DR (Deferred Report) 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 back to the instructor of the course involved, the nature of the 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, the matter should first be taken up with the instructor. If the matter is not resolved, the student may go for counseling to the Office of Ombuds Services or may follow the procedures for the formal filing of charges (see Faculty Code of Conduct earlier in the Appendix).

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 reexamination or, with
the exception of the 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 the University must be countersigned by the department chair. All grade changes are recorded on the transcript.

Policy on Alternate Examination Dates

In compliance with Section 92640(a) of the California Education Code, the University must accommodate requests for alternate examination dates 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 which could not reasonably be avoided. Accommodation for alternate examination dates will be 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 the Dean of Students, 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 the Dean of Students 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 be graduated, a student's major department may examine him or her in the field of the major, may excuse the student from final examinations in courses offered by the department during that term and, with the approval of the Undergraduate Council, assign a credit value to such general examination.

An instructor shall, if he or she wishes, release to individual students their original final examinations (or copies). This may be done by any method which insures the students' right to privacy. Otherwise, the instructor shall retain final examination materials, or a copy thereof, until the end of the next succeeding regular term of instruction, during which period students shall have access to their examinations.

Disclosure of Student Records

Pursuant to the Federal Family Educational Rights and Privacy Act (FERPA), the California Information Practices Act, and the University of California Policies Applying to the Disclosure of Information from Student Records, students at UCLA have the right to (1) inspect and review records pertaining to themselves in their capacity as students, except as the right may be waived or qualified under Federal and State Laws and University Policies, (2) have withheld from disclosure, absent their prior 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 "directory information" which UCLA may release and publish without the student's prior consent: name, address (local/mailing, permanent, and/or e-mail), 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.

Students who do not wish certain items (i.e., name, local/mailing, permanent, and/or 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 "directory information" released and published may so indicate through URSA (http://www.ursa.ucla.edu). To restrict the release and publication of the additional items in the category of "public information," complete the UCLA FERPA Restriction Request form available from Enrollment and Degree Services, 1113 Murphy Hall.

Student records which 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 the Dean of Students, UCLA Career Center, Graduate Division, and the offices of a student's College or school and major department. Students are referred to the UCLA Telephonic Directory which lists all the offices that may maintain student records, together with their 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 72 hours in advance. Call (310) 825-3801 or inquire at Academic Record Services, 1134 Murphy Hall.

A copy of the Federal and State Laws, University Policies, and the UCLA Telephonic Directory may be inspected in the office of the Information Practices Coordinator, 600 UCLA Wilshire Center. Information concerning students' hearing rights may be obtained from that office and from the Office of the Dean of Students, 1206 Murphy Hall.

In addition to the public information described above, information related to students' Social Security number, sex, and marital status, and the name(s), address(es), and telephone number(s) of their parents or next of kin are made available to the UCLA External Affairs Department for use in alumni, development, and public relations activities. To restrict the release of this additional information, complete a Request for External Affairs Information Restriction form available from Enrollment and Degree Services, 1113 Murphy Hall.

Undergraduate Retention, Graduation, and Time to Degree

Retention and graduation rates are higher than ever before at UCLA and among the highest for public universities anywhere in the country. Over the past three years, 96 percent of all students entering from high school and 94 percent of all students entering as transfers were still enrolled at UCLA one year later.

Over the past three years, the four-year, five-year, and six-year graduation rates for students entering from high school averaged 52, 81, and 83 percent respectively. More than 83 percent of all students entering from high school from 1990 to 1996 have graduated from UCLA. Final graduation rates above 85 percent are projected for all freshmen cohorts arriving since 1997.

Over the past three years, the two-year, three-year, and four-year graduation rates for entering transfer students have averaged 45, 79, and 84 percent respectively. More than 84 percent of all transfer students entering from 1992
to 1998 have graduated from UCLA. Final graduation rates above 85 percent are projected for all transfer cohorts arriving since 1999.

Time to degree for UCLA undergraduates has declined significantly over the past decade. In 2001-02 more than 4,100 baccalaureate degrees were awarded to students who entered directly from high school. The average number of quarters registered at UCLA was 12.6, down from an average of 13.6 quarters for similar graduates in 1991-92. Among recent graduates, 65 percent were registered for 12 quarters or less (i.e., four years or less), 73 percent for 13 quarters or less, 81 percent for 14 quarters or less, and 95 percent for 15 quarters or less (i.e., five years or less).

In 2001-02 more than 2,600 baccalaureate degrees were awarded to students who entered as transfers. The average number of quarters registered at UCLA was 7.1, down from an average of 8.1 quarters for similar graduates in 1991-92. Among recent graduates, 52 percent were registered for six quarters or less (i.e., two years or less), 67 percent for seven quarters or less, 76 percent for eight quarters or less, and 92 percent for nine quarters or less (i.e., three years or less).

Additional information is available at http://www.apb.ucla.edu.

Campus Security Information

UCLA Police Department

The UCLA Police Department (310-825-1491; http://www.ucpd.ucla.edu), located at Westwood Plaza and Charles E. Young Drive South, has 56 sworn California State Police Officers empowered by the State of California with the authority to enforce all state and local laws. UCLA 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 Bureau handles criminal investigations, and detectives conduct interviews, arrest violators, execute search warrants, and file cases with the city attorney’s office.

Incident Reporting

UCLA police officers have primary jurisdiction over the UCLA campus, Center for the Health Sciences, and University Apartments South. The City of Los Angeles Police Department does not handle calls for service on campus. All requests for police service should be made to the UCLA Police Department. All crime occurring on campus, the Center for the Health Sciences, and other UCLA properties should be reported immediately to the department to ensure appropriate action is taken. Crimes occurring off campus should be reported immediately to the local law enforcement agency.

Police, fire, or medical EMERGENCIES can be reported by dialing 911 from any telephone on campus. All telephones (University, private, public) located on University 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.

NONEMERGENCY calls for service can be made by contacting the department at (310) 825-1491.

Crime Statistics and Reports


Community Service Officers

The UCLA Police Department employs approximately 125 student community service officers (CSOs; http://www.ucpd.ucla.edu/ucpd/services_escort.html) who are the “eyes and ears” (trained observers) of the department and act as nonintervention visual deterrents to crime. CSOs wear high-visibility uniforms and carry two-way police radios. They are dispatched by the department’s Communications Center and provide a direct link to police, fire, or medical aid. CSOs provide security service to a number of campus buildings, including residence halls and libraries. They are well-known for the Campus Escort Service and the Evening Van Service. The Campus Escort Service operates every day of the year from dusk to 1 a.m. Individuals requesting the service call the Communications Center; a CSO is then dispatched to walk them safely to their destination. The service is available to UCLA students, staff, faculty, and visitors on campus and in the nearby residential areas. The Evening Van Service provides a safe and convenient mode of transportation around campus at night and is accessible to people with disabilities.

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 (http://www.ucpd.ucla.edu/ucpd/services_crimeprev.html) 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, and rape prevention. Other programs are developed to meet the special needs of the campus community. Brochures and literature on crime prevention and personal safety are available. The Center for Women and Men and the Crime Prevention Unit provide presentations on sexual assault issues. Topics include acquaintance rape education and prevention, personal safety and prevention techniques, recovery from sexual assault, clear communications, pornography, 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.

The Center for Women and Men 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. The center 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. All incidents of criminal activity which pose a potential threat to the campus are brought immediately to the attention of the community through Campus Alert Bulletins (http://www.ucpd.ucla.edu/ucpd/bulletin_crime.html). Additionally, those interested in receiving public safety bulletins and news briefs can sign up for the public safety list server at http://www.ucpd.ucla.edu/ucpd/listserv.html.

Emergency Medical Services

The UCLA Police Department 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 which are designed to discourage the use of illicit substances and to educate students on the merits of legal and responsible alcohol consumption. Student Psychological Services (310-825-7985; http://www.saonet.ucla.edu/sps.htm) 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 University Policies and State and Federal Laws. Any decision to seek assistance is not used in connec-
tion with any academic determination or as a basis for disciplinary proceedings.

Policies
UCLA has been designated drug free, 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 UCLA 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 18,000 students. Housing facilities range from apartments designed for students with children to multi-student apartment complexes to high-rise student residence halls. The UCLA Police Department 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 crime potential awareness 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. 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 the University 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 commonsense safety precautions. Anyone parking on campus should remember to lock their vehicles and consider investing in a steering wheel locking device and/or alarm. Take advantage of all of the safety services provided by the University and the UCLA Police Department. Use the Campus Escort Service when walking at night. Keep room and apartment doors locked at all times. Most important, anyone needing assistance should not hesitate to contact the department.

APPENDIX B:
UNIVERSITY ADMINISTRATIVE OFFICERS

Terms of Regents (http://www.ucop.edu/regents/) appointed by the Governor expire March 1 of the year in parentheses. The Student Regent (Matthew Murray) 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
Gray Davis
Lieutenant Governor of California
Cruz M. Bustamante
Speaker of the Assembly
Herb J. Wesson, Jr.
State Superintendent of Public Instruction
Jack T. O’Connell
President of the Alumni Association of the University of California
Laurence Seigler
Vice President of the Alumni Association of the University of California
Barbara K. Bodine
President of the University
Richard C. Atkinson

Appointed Regents
Richard C. Blum (2014)
Ward Connerly (2005)
John G. Davies (2004)
Judith L. Hopkinson (2009)
Odessa P. Johnson (2012)
Joanne C. KoZberg (2010)
Sherry L. Lansing (2010)
David S. Lee (2006)
Monica Lozano (2013)
George M. Marcus (2012)
Velma Montoya (2005)
John J. Moores (2009)
Gerald L. Parshy (2008)
Pete Preuss (2008)
Haim Saban (2013)
Tom Sayles (2006)
Matthew Murray, Student Regent (2004)

Faculty Representatives to the Board of Regents
George Blumenthal
Lawrence H. Pitts

Officers of The Regents
President of The Regents
Gray Davis
Chair of The Regents
John J. Moores
Vice Chair of The Regents
Odessa P. Johnson
General Counsel
James E. Holst
Secretary
Leigh Trivette
Treasurer
David H. Russ

Office of the President
President of the University
Richard C. Atkinson
Provost and Senior Vice President—Academic Affairs
C. Judson King
Senior Vice President—Business and Finance
Joseph P. Mullinix
Senior Vice President—University Affairs
Bruce B. Darling
Vice President—Agriculture and Natural Resources
W.R. Gomes
Vice President—Budget
Lawrence C. Hershman
Vice President—Clinical Services
Development
William H. Gurtner
Vice President—Educational Outreach
Winston C. Doby
Vice President—Financial Management
Anne C. Broome
Vice President—Health Affairs
Michael V. Drake
Interim Vice President—Laboratory Management
Bruce B. Darling

Chancellors of the Campuses
Chancellor at Berkeley
Robert M. Berdahl
Chancellor at Davis
Larry N. Vanderhoef
Chancellor at Irvine
Ralph J. Cicerone
Chancellor at Los Angeles
Albert Carnesale
Chancellor at Merced
Carol Tomlinson-Keasey
Chancellor at Riverside
France A. Córdova
Chancellor at San Diego
Robert C. Dynes
Chancellor at San Francisco
J. Michael Bishop
Chancellor at Santa Barbara
Henry T. Yang
Chancellor at Santa Cruz
M.R.C. Greenwood

University Professors, UCLA
Robert B. Edgerton, University Professor, Los Angeles, Anthropology, Psychiatry and Biobehavioral Sciences
APPENDIX C: ENDOWED CHAIRS

Although UCLA is a public institution, private gifts are increasingly important in maintaining the quality of the University’s 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 goes to press, UCLA has 189 endowed chairs which have been approved by the Office of the President of the University of California, as follows. (Asterisks indicate new chairs which have been approved by the Office of the President since publication of the 2001-03 UCLA General Catalog.)

School of the Arts and Architecture
S. Charles Lee Chair in Architecture and Urban Design
Harvey S. Perloff Chair
Presidential Chair in Music and Interactive Arts
UCLA Art Council Professorship of Art

School of Dentistry
Tarrson Family Endowed Chair in Periodontics

Graduate School of Education and Information Studies
Allan Murray Cartter Chair in Higher Education
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
Presidential Chair in Educational Equity
Presidential Chair in Information Studies

Henry Samueli School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Roy and Carol Doumani Chair in Biomedical Engineering
Norman E. Friedmann Chair in Knowledge Sciences
Levi James Knight, Jr., Chair in Engineering
Nippon Sheet Glass Company Chair in Materials Science
Northrop Chair in Electrical Engineering/Electromagnetics
Ralph M. Parsons Chair in Chemical Engineering
Raytheon Company Chair in Electrical Engineering
Raytheon Company Chair in Manufacturing Engineering

School of Nursing
Marie J. Cowan, R.N., Ph.D.

School of Public Health
Linda Rosenstock, M.D.

School of Public Policy and Social Research
Barbara J. Nelson, Ph.D.

School of Theater, Film, and Television
Robert Rosen, M.A.

Ben Rich Lockheed Martin Chair in Aeronautics
Rockwell International Chair in Engineering
William Frederick Seyer Term Chair in Materials Electrochemistry
TRW Chair in Electrical Engineering

School of Law
Harry Graham Balter Chair in Law
Connell Professorship of Law
Richard C. Maxwell Chair in Law
Arjay and Frances Fearing Miller Chair in Law
David G. and Dallas P. Price Chair in Law
Security Pacific Bank Chair
William D. Warren Chair in Law

College of Letters and Science
Armen A. Alchian Chair in Economic Theory
Maurice Amado Chair in Sephardic Studies
Armenian Educational Foundation Chair in Modern Armenian History
RBBL Bergman Foundation Chair in Business Economics
Henry J. Bruman Chair in German History
Ralph Bunche Chair in International Studies
Edward W. Carter Chair in Netherlandish Art
James S. Coleman Chair in International Development Studies
Courtauld’s Chair in Chemistry
Norman Cousins Endowed Chair in Psychoneuroimmunology
Navin and Pratima Doshi Chair in Indian History
Mr. and Mrs. C.N. Flint Professorship of Philosophy
Evan Frankenl Endowed Chair in English
Gloria and Paul Griffin Chair in Philosophy
*John Charles Hillis Chair in Literature
Marvin Hoffenberg Chair in American Politics and Public Policy
*John McGaugh Career Development Chair
*Dorothy L. Meier Social Equities Chair
Robert Michaels Chair in Behavioral Neuroscience
Robert and Sherry Michaels Chair for Excellence in Psychology
Franklin D. Murphy Chair in Italian Renaissance Studies
Narekatsi Chair in Armenian Studies
“1939” Club Chair
President’s Chair in Developmental Immunology
Hans Reichenbach Chair in Scientific Philosophy
*Howard Reiss Career Development Chair
Musa Sabi Chair in Iranian Studies
David S. Saxon Presidential Chair in Physics
Louis B. Slicher Chair in Geophysics and Planetary Physics
Charles Speroni Chair in Italian Literature and Culture
Staglin Family Chair in Psychology
Steinmetz Chair in Classical Archaeology and Material Culture
Paul I. Terasaki Chair in U.S.-Japanese Relations

UCLA Alumni and Friends of Japanese Ancestry Chair in Japanese American Studies
UCLA Foundation Chair
Eugn Weber Chair in Modern European History
Alexander von Humboldt Endowed Chair in Geography
Saul Weinstein Chair in Organic Chemistry

**John E. Anderson Graduate School of Management**
Allstate Chair in Insurance and Finance
Anderson Worldwide Chair in Management
John E. Anderson Chair in Management
Marion Anderson Chair in Management
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
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
Henry Ford II Chair in International Management
Lee and Seymour Graff Endowed Professorship
Goldyne and Irwin Hearsh Chair in Money and Banking
IBM Chair in Computers and Information Systems
Joseph Jacobs Chair in Entrepreneurial Studies
Neil Jacoby Chair in Management
*Japan Alumni Chair in International Finance
Betsy Wood Knapp Professorship for Innovation and Creativity
Bud Knapp Professorship
Harry and Elsa Kunin Chair in Business and Society
William E. Leonhard Chair in Management
Chauncey J. Medberry Chair in Management
*Peter Mullin Chair in Management
Howard Noble Chair in Management
Paine Chair in Management
PricewaterhouseCoopers Faculty Fellowship in Accounting
George Robbins Chair in Management
Sanford and Betty Sigloch Chair in Corporate Renewal
Times Mirror Chair in Management Strategy and Policy
Ho-Su Wu Chair in Management

**David Geffen School of Medicine**
William S. Adams, M.D., Chair in Medicine
Dena Bat-Yacov Endowed Chair in Childhood Psychiatry and Behavioral Sciences
Louis D. Beaumont Chair in Surgery
Jerome L. Belzer Chair in Medical Research
Bing Professorship of Urologic Research
Bowyer Professorship of Medical Oncology
Judson Braun Chair in Biological Psychiatry
Rubin Brown Chair in Pediatric Neurology
Joseph Campbell Chair in Child Psychiatry
Iris Cantor Chair in Breast Imaging
Edward W. Carter Chair in Internal Medicine
Castora Chair in Cardiology
*Vincent and Stella Coates Chair in Molecular Neurobiology
Tony Coelho Chair in Neurology

*Eliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Endowed Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
M. Philip Davis Chair in Microbiology and Immunology
Roy and Carol Dourani Chair in Urological Oncology
Dumont-UCLA Chair in Transplantation Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Laraine and David Gerber Chair in Ophthalmology
Joan S. and Ralph N. Goldwyn Chair in Immunobiology and Transplantation
Dolly Green Chair in Ophthalmology
Maud Cady Guthman Chair in Cardiology
Stefan Hatos Endowed Chair in Psychiatry and Biobehavioral Sciences
Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research
*Julien I.E. Hoffman, M.D., Chair in Cardiothoracic Surgery
Ronald L. Katz, M.D., Endowed Chair in Anesthesiology
Chizuko Kawata Chair in Cardiology
Karl Kirchgesner Foundation Chair in Vision Science
George F. Kneller Chair in Family Medicine
Grace and Walter Lantz Endowed Chair
Eleanor I. Leslie Chair in Neuroscience
William P. Longmire, Jr., Chair in Surgery
Gordon and Virginia MacDonald Distinguished Chair in Human Genetics
Charles H. Markham Chair in Neurology
Della Martin Chair in Psychiatry
David May II Chair in Ophthalmology
Henry Alvin and Carrie L. Meinhardt Chair in Kidney Cancer Research
Sherman M. Mellinkoff Distinguished Professor in Medicine Endowed Chair
*Dr. Walter and Mrs. Kathryn Mullikin Chair in Orthopaedic Surgery
*Jane and Marc Nathanson Endowed Chair
James H. Nicholson Chair in Pediatric Cardiology
Helga and Walter Oppenheimer Endowed Chair in Orthopaedic Oncology
*Oppenheimer Brothers Chair
Albert F. and David H. Parlow-Solomon Chair for UCLA Program on Aging
Samuel J. Pearlman, M.D., and Della Z. Pearlman Chair in Head and Neck Surgery
Carl M. Pearson, M.D., Endowed Chair in Rheumatology
*Frances and Albert Piansky Chair in Alcohol Studies
Thomas P. and Katherine K. Pike Chair in Alcohol Studies
Elizabeth R. and Thomas E. Pott Chair in Gerontology
Edith Agnes Plumb Endowed Chair in Neurobiology
Harold and Pauline Price Term Endowed Chair
Reviron Chair in Women's Health
Leo G. Rigler Chair in Radiological Sciences
Augustus S. Rose Chair in Neurology

*Maxine and Eugene Rosenfield Endowed Chair in Computational Genetics
Carol and Saul Rosenzweig Endowed Chair in Cancer Therapies Development
*Estelle, Abe, and Marjorie Sanders Chair in Cancer Research
Bernard G. Sarnat, M.D., Endowed Chair in Craniofacial Biology
Jennifer Jones Simon Chair in Radiation Oncology
Norton Simon Chair in Biophysics
*Jonathan Sinay Chair in Epilepsy
*George F. Solomon Professorship of Psychobiology
Norman F. Sprague Chair in Molecular Oncology
Fran and Ray Stark Foundation Chair in Digestive Diseases
Fran and Ray Stark Foundation Chair in Urology
Frances and Ray Stark Chair in Ophthalmology
Frances Stark Chair in Neurology
Jules Stein Chair in Ophthalmology
W. Eugene Stern Chair in Neurosurgery
Ruth and Raymond H. Stotter Chair in Neurosurgery
Bradley R. Straatsma, M.D., Endowed Chair in Ophthalmology
Dorothy and Leonard Straus Chair in Gastroenterology in Memory of Gussie Borin
Streisand Chair in Cardiology
Leon J. Tiber, M.D., and David S. Alpert, M.D., Chair in Medicine
Vernon O. Underwood Family Chair in Ophthalmology
Variety Club-D. Barry Reardon Endowed Chair in Pediatric Hematology/Oncology
Richard D. and Ruth P. Walter Chair in Neurology
Wasserman Professor of Ophthalmology

**School of Nursing**
Lulu Wolf Hassenzplug Chair in Nursing
Audrienne H. Moseley Chair in Biological Nursing Science
Audrienne H. Moseley Chair in Nursing
Audrienne H. Moseley Chair in Women's Health Research

**School of Public Health**
Fred H. Bixby Chair in Population Policy
Fred W. and Pamela K. Wasserman Chair in Health Services

**School of Public Policy and Social Research**
Marjorie Crump Chair in Social Welfare
Harvey S. Perloff Chair

**School of Theater, Film, and Television**
Lew and Pamela Hunter/Jonathan Zakin Chair in Screenwriting
*Rouben Mamoulian Visiting Chair in Film Directing
*Rouben Mamoulian Visiting Chair in Theater Directing
Distingished
Edward W. Graham
1968
E.K.L. Upton
David S. Saxon
William Matthews
J.A.C. Grant
Joseph E. Spencer
Hans Meyerhoff
William P. Gerberding
George A. Bartholomew
William R. Romig
Allen Parducci
W.R. Hitchcock
E.A. Carlson
Moshe F. Rubinstein
Leon Howard
Mostafa A. El-Sayed
1964
John F. Barron (Economics)
Hector E. Hall (Physiology)
Kenneth N. Trueblood (Chemistry and Biochemistry)
1965
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)
1966
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Weinstein (Chemistry and Biochemistry)
1967
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe F. Rubinstein (Civil and Environmental Engineering)
1968
E.A. Carlson (Biology)
W.R. Hitchcock (History)
Allen Parducci (Psychology)
William R. Romig (Microbiology and Molecular Genetics)
1969
Robert J. Finkelstein (Physics and Astronomy)
Douglas S. Hobbs (Political Science)
J.E. Phillips (English)
Raymond M. Redheffer (Mathematics)
Margret I. Sellers (Microbiology and Immunology)
1970
Ehrhard Bahr (Germanic Languages)
Joseph Cascarano (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)
1971
Vernon E. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthur D. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)
1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)
1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)
1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)
1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schachter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Neurobiology)
1976
Marianne Celce-Murcia (Teaching English as a Second Language and Applied Linguistics)
Jesse J. Dukeminier (Law)
George R. Guffey (English)
Marilyn L. Koutitsky (Education)
Chand R. Velayathan (Electrical Engineering)
1977
Michael J.B. Allen (English)

Appendix D: Distinguished Teaching Awards

Academic Senate Recipients

Each year the UCLA Alumni Association presents Distinguished Teaching Awards to five Academic Senate faculty members. The highly prized awards are presented at the annual UCLA Alumni Association Awards Ceremony, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during Fall Quarter. The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1961
John F. Barron (Economics)
Hector E. Hall (Physiology)
Kenneth N. Trueblood (Chemistry and Biochemistry)
1962
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)
1963
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Weinstein (Chemistry and Biochemistry)
1964
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe F. Rubinstein (Civil and Environmental Engineering)
1965
E.A. Carlson (Biology)
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 (Physiology)
1969
Robert J. Finkelstein (Physics and Astronomy)
Douglas S. Hobbs (Political Science)
J.E. Phillips (English)
Raymond M. Redheffer (Mathematics)
Margret I. Sellers (Microbiology and Immunology)
1970
Ehrhard Bahr (Germanic Languages)
Joseph Cascarano (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)
1971
Vernon E. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthur D. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)
1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)
1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)
1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)
1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schachter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Neurobiology)
1976
Marianne Celce-Murcia (Teaching English as a Second Language and Applied Linguistics)
Jesse J. Dukeminier (Law)
George R. Guffey (English)
Marilyn L. Koutitsky (Education)
Chand R. Velayathan (Electrical Engineering)
1977
Michael J.B. Allen (English)

1978
William R. Allen (Economics)
Michael E. Jung (Chemistry and Biochemistry)
J. Fred Weston (Management)
Thomas D. Wickens (Psychology)
Johannes Wilbert (Anthropology)
1979
Steven Krantz (Mathematics)
Paul I. Rosenthal (Communication Studies)
Christopher Saltzer (Geography)
James H. White (Mathematics)
Stephen C. Yeazell (Law)
1980
A.R. Braunmuller (English)
Freda Chiappelli (Italian)
Kenneth L. Karlst (Law)
Richard F. Logan (Geography)
Ronald F. Zemnicke (Physiological Science)
1981
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)
1982
Dean Bok (Neurobiology)
Robin S. Liggitt (Architecture and Urban Design. Urban Planning)
William Melnitz (Theater)
Joseph K. Perloff (Medicine)
Karen E. Rowe (English)
1983
Claude Bernard (Physics and Astronomy)
Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)
Charles M. Knobler (Chemistry and Biochemistry)
1984
Robert Dallek (History)
Hooshang Kangerloo (Radiological Sciences)
Jeffrey Prager (Sociology)
Stanley Siegel (Law)
Sandra A. Thompson (Linguistics)
1985
Patricia M. Greenfield (Psychology)
David F. Martin (Computer Science)
Mark W. Plant (Economics)
Ross P. Shideleer (Scandinavian Section, Comparative Literature)
William D. Warren (Law)
1986
Roger A. Gorski (Neurobiology)
Patricia A. Keating (Linguistics)
Leonard Kleinrock (Computer Science)
Martin Wachs (Urban Planning)
Development began sponsorship of awards to non-Academic Senate faculty members in 1992. This category includes lecturers who are nominated by their departments. All non-Academic Senate faculty members who are nominated for the award are eligible. Recipients are selected by the Academic Senate Committee on Teaching, utilizing the same criteria as that 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.

1987
- L. Geoffrey Cowan (Communication Studies)
- Mary Elizabeth Perry (History)
- Linda Diane Venis (English)

1988
- David Cohen (Mathematics)
- Johanna Harris-Heggie (Music)
- Paul Von Blum (Interdisciplinary)

1989
- Carol D. Berkowitz (Pediatrics)
- Art Huffman (Physics and Astronomy)
- David G. Kay (Computer Science)

1990
- S. Scott Bartchy (History)
- Bonnie Lisle (Writing Programs)
- Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1991
- Lisa Gerrard (Writing Programs)
- Andres Durstenfeld (Biology)
- Dorothy Phillips (Physiological Science)

1992
- Marde S. Gregory (Speech)
- Betty A. Luceigh (Chemistry and Biochemistry)
- Cheryl Pfoff (Writing Programs)

1993
- Janet Goodwin (Teaching English as a Second Language and Applied Linguistics)
- Janette Lewis (Writing Programs)
- Yihua Wang (East Asian Languages and Cultures)

1994
- Stephen Dickey (English)
- Sondra Hale (Anthropology)
- Jutta Landa (Germanic Languages)

1995
- Steven K. Derian (Law)
- Linda Jensen (Teaching English as a Second Language and Applied Linguistics)
- Shelby Popham (Writing Programs)

1996
- Scott Bowman (Political Science)
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 two years 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)
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