Academic Calendars

2012 – 2013

Fall Quarter 2012
Quarter begins . . . . . . . . . . . . . . . . . . . . . . . September 24
Instruction begins . . . . . . . . . . . . . . . . . . . . . September 27
Veterans Day holiday . . . . . . . . . . . . . . . . November 12
Thanksgiving holiday . . . . . . . . . . . . . . . . November 22–23
Instruction ends . . . . . . . . . . . . . . . . . . . . . . . . . December 7
Veterans Day holiday . . . . . . . . . . . . . . . . November 12
Final examinations . . . . . . . . . . . . . . . . . . December 8–9
Quarter ends . . . . . . . . . . . . . . . . . . . . . December 14
Christmas holiday . . . . . . . . . . . . . . . . . December 24–25

Winter Quarter 2013
Quarter begins  . . . . . . . . . . . . . . . . . . . . . . . January 2
Instruction begins . . . . . . . . . . . . . . . . . . . . January 7
Martin Luther King, Jr. holiday . . . . . . . . . . January 20
Presidents' Day holiday . . . . . . . . . . . . . . . . February 18
Instruction ends . . . . . . . . . . . . . . . . . . . . . . . March 15
Common final examinations . . . . . . . . . . . . . March 16–17
Final examinations . . . . . . . . . . . . . . . . . . March 18–22
Quarter ends . . . . . . . . . . . . . . . . . . . . . . . March 22

Spring Quarter 2013
Quarter begins . . . . . . . . . . . . . . . . . . . . . . . March 27
César Chávez holiday . . . . . . . . . . . . . . . . . March 29
Instruction begins . . . . . . . . . . . . . . . . . . . . April 1
Memorial Day holiday . . . . . . . . . . . . . . . . . . . . May 27
Instruction ends . . . . . . . . . . . . . . . . . . . . . June 7
Common final examinations . . . . . . . . . . . . . June 8–9
Final examinations . . . . . . . . . . . . . . . . . . . . . June 10–14
Quarter ends . . . . . . . . . . . . . . . . . . . . . . . June 14
Commencement ceremonies . . . . . . . . . . . . . . . . June 14–16

Fall Quarter 2013
Quarter begins . . . . . . . . . . . . . . . . . . . . . . . September 23
Instruction begins . . . . . . . . . . . . . . . . . . . . September 26
Veterans Day holiday . . . . . . . . . . . . . . . . November 11
Thanksgiving holiday . . . . . . . . . . . . . . . . November 28–29
Instruction ends . . . . . . . . . . . . . . . . . . . . . December 6
Common final examinations . . . . . . . . . . . . December 7–8
Final examinations . . . . . . . . . . . . . . . . . . . . . December 9–13
Quarter ends . . . . . . . . . . . . . . . . . . . . . . December 13
Christmas holiday . . . . . . . . . . . . . . . . . December 24–25

Winter Quarter 2014
Quarter begins  . . . . . . . . . . . . . . . . . . . . . . . January 2
Instruction begins . . . . . . . . . . . . . . . . . . . . January 6
Martin Luther King, Jr. holiday . . . . . . . . . . January 20
Presidents' Day holiday . . . . . . . . . . . . . . . . February 17
Instruction ends . . . . . . . . . . . . . . . . . . . . . . March 14
Common final examinations . . . . . . . . . . . . . March 15–16
Final examinations . . . . . . . . . . . . . . . . . . . . March 17–21
Quarter ends . . . . . . . . . . . . . . . . . . . . . . . March 21

Spring Quarter 2014
Quarter begins . . . . . . . . . . . . . . . . . . . . . . . March 26
César Chávez holiday . . . . . . . . . . . . . . . . . March 28
Instruction begins . . . . . . . . . . . . . . . . . . . . March 31
Memorial Day holiday . . . . . . . . . . . . . . . . . May 26
Instruction ends . . . . . . . . . . . . . . . . . . . . . . June 6
Common final examinations . . . . . . . . . . . . . June 7–8
Final examinations . . . . . . . . . . . . . . . . . . . . . June 9–13
Quarter ends . . . . . . . . . . . . . . . . . . . . . . . June 13
Commencement ceremonies . . . . . . . . . . . . . . . . June 13–15

Online Publications
The UCLA General Catalog is available 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
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Cover, clockwise from top: the Bruin band performs; students cheer from “the den” inside Pauley Pavilion; volunteers help refresh a local school on Volunteer Day; graduating seniors enjoy a moment of fun in the Inverted Fountain; students research hermit crabs in the U.S. Virgin Islands; professor Abel Valenzuela mentors a student.

Title page: Panoramic view of the UCLA central campus including Janss Steps flanked by Royce Hall (left center) and Powell Library (right center), with the downtown Los Angeles skyline in the distance. Photo by Reed Hutchinson.


The UCLA General Catalog is available online at http://www.registrar.ucla.edu/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 Affairs, and Public Health, 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 at http://www.grad.ucla.edu, which contains a link to Graduate Division publications, including Program Requirements for UCLA Graduate Degrees that 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

University of California, Los Angeles

Los Angeles, CA 90095-1361
Main telephone: (310) 825-4321
Speech- and hearing-impaired access: TTY (310) 825-2833
http://www.ucla.edu
FROM THE CHANCELLOR OF UCLA

This Catalog describes the almost endless academic choices available to you at UCLA. Choose from 5,000 courses each term, 129 undergraduate majors, 87 master's programs, 110 doctoral and professional programs, and 81 minors as you build a course of study that suits your own interests and aspirations. The size and scope of our campus enables us to offer you a remarkable range of academic possibilities. At the same time, almost 70 percent of our undergraduate classes have fewer than 30 students so you can get to know your professors and classmates.

Your fellow students at UCLA come from incredibly diverse backgrounds. Those admitted to our freshman class for 2012-13 are from 50 states and 64 countries. But, like you, all of them are driven by an unwavering commitment to excellence and a determination to make a difference wherever they go.

Our faculty of more than 4,300 is made up of renowned scholars who are highly regarded as leaders in their fields. Undergraduates, as well as graduate students, have opportunities to study with top professors and conduct research under their guidance.

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

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

I invite you to explore UCLA beyond the contents of this catalog. Visit us on campus, or online at http://www.ucla.edu.

Gene D. Block
Chancellor
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COLLEGE OF LETTERS AND SCIENCE

African Studies Interdepartmental Program
African Studies .......................... M.A.

Afro-American Studies Interdepartmental Program
Afro-American Studies ................. B.A., M.A.

American Indian Studies Interdepartmental Program
American Indian Studies ............... B.A., M.A.

Anthropology Department
Anthropology ............................ B.A., B.S., M.A., Ph.D.

Applied Linguistics Department
African Languages ........................ B.A.
Applied Linguistics ........................ B.A., M.A., C.Phil., Ph.D.

Archaeology Interdepartmental Program
Archaeology .............................. M.A., C.Phil., Ph.D.

Art History Department
Art History ............................... B.A., M.A., Ph.D.

Asian American Studies Department
Asian American Studies ................ B.A., M.A.

Asian Languages and Cultures Department
Asian Humanities ........................ B.A.
Asian Languages and Cultures .......... M.A., C.Phil., Ph.D.
Asian Religions ........................... B.A.
Chinese ................................... B.A.
Japanese ................................... B.A.
Korean .................................... B.A.

Atmospheric and Oceanic Sciences Department
Atmospheric, Oceanic, and Environmental Sciences ............................. B.S.
Atmospheric and Oceanic Sciences ................................................. M.S., C.Phil., Ph.D.

Bioinformatics Interdepartmental Program
Bioinformatics ............................. M.S., Ph.D.

Chemistry and Biochemistry Department
Biochemistry .............................. B.S.
Biochemistry and Molecular Biology ............................................ M.S., C.Phil., Ph.D.
Chemistry ................................. B.S., M.S., C.Phil., Ph.D.
Chemistry/Materials Science .............. B.S.
General Chemistry ........................ B.S.

Chicana and Chicano Studies Department, César E. Chávez
Chicana and Chicano Studies ............. B.A., M.A., Ph.D.

Classics Department
Classics .................................... M.A., C.Phil., Ph.D.
Classical Civilization ..................... B.A.
Greek ....................................... B.A., M.A.
Greek and Latin ........................... B.A.
Latin ........................................ B.A., M.A.

Communication Studies Department
Communication Studies .................... B.A.

Comparative Literature Department
Comparative Literature ........................ B.A., M.A., C.Phil., Ph.D.

Computational and Systems Biology Interdepartmental Program
Computational and Systems Biology .... B.S.

Conservation of Archaeological and Ethnographic Materials Interdepartmental Program
Conservation of Archaeological and Ethnographic Materials ................. M.A.

Earth and Space Sciences Department
Earth and Environmental Science ........ B.A.
Geochemistry ............................ M.S., C.Phil., Ph.D.
Geology .................................... B.S., M.S., C.Phil., Ph.D.
Geology/Engineering Geology ............ B.S.
Geology/Paleobiology ..................... B.S.
Geophysics/Geophysics/ and Space Physics ....................................... B.S.
Geophysics and Space Physics ............. M.S., Ph.D.

East Asian Studies Interdepartmental Program
East Asian Studies ........................ M.A.

Ecology and Evolutionary Biology Department
Ecology, Behavior, and Evolution ........ B.S.

Economics Department
Business Economics ........................ B.A.
Economics ................................. B.A., M.A., C.Phil., Ph.D.
Economics/International Area Studies .... B.A.

English Department
American Literature and Culture ........ B.A.

French and Francophone Studies Department
French ....................................... B.A.
French and Francophone Studies ......... M.A., C.Phil., Ph.D.
French and Linguistics .................... B.A.

Gender Studies Department
Gender Studies ............................ B.A., M.A., Ph.D.

Geography Department
Geography ................................. B.A., M.A., C.Phil., Ph.D.
Geography/Environmental Studies ....... B.A.

Germanic Languages Department
German ....................................... B.A.

Global Studies Interdepartmental Program
Global Studies ............................ B.A.

History Department
History .......................... B.A., M.A., C.Phil., Ph.D.

History/Art History Interdepartmental Program
History/Art History ........................ B.A.

Individual Field of Concentration
Individual Field of Concentration ........ B.A.

Indo-European Studies Interdepartmental Program
Indo-European Studies .................. C.Phil., Ph.D.

Institute for Society and Genetics, Center for Interdisciplinary Instruction
Human Biology and Society ............... B.A., B.S.

Institute of the Environment and Sustainability, Center for Interdisciplinary Instruction
Environmental Science .................. B.S.

Integrative Biology and Physiology Department
Physiological Science ........................ B.S., M.S.

International and Area Studies Interdepartmental Program
International and Area Studies ......... B.A.

Islam Studies Interdepartmental Program
Islam Studies ............................. M.A., C.Phil., Ph.D.

Italian Department
Italian ....................................... B.A., M.A., C.Phil., Ph.D.

Latin American Studies Interdepartmental Program
Latin American Studies ................... M.A.

Linguistics Department
Linguistics ................................. B.A., M.A., C.Phil., Ph.D.
Linguistics and Anthropology ............ B.A.
Linguistics and Asian Languages and Cultures ................................. B.A.

Literary and Special Fields ................ B.A.

Mathematics Department
Applied Mathematics ..................... B.S.
Mathematics .............................. B.S., M.A., M.A.T., C.Phil., Ph.D.

Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics ........................... B.S., M.S., Ph.D.

Marine Biology ............................ B.S.

Near Eastern Languages and Cultures Department
Near Eastern Languages and Cultures ................................. B.A.

Neuroscience Interdepartmental Program
Neuroscience .............................. B.S.

Physics Interdepartmental Program
Physics ................................. B.A., M.A., C.Phil., Ph.D.

Polymer Science Interdepartmental Program
Polymer Science .......................... B.S.

Public Health Interdepartmental Program
Public Health ............................. B.A.

Scandinavian Studies Interdepartmental Program
Scandinavian Studies .................... B.A.

Sustainable Transportation Program
Sustainable Transportation .............. B.S.

Sustainable Transportation and Policy
Sustainable Transportation and Policy ........ B.S.

Sustainable Transportation and Policy Interdepartmental Program
Sustainable Transportation and Policy Interdepartmental Program ........ B.A.

Systematics Interdepartmental Program
Systematics ............................... B.A.

Social Sciences Interdepartmental Program
Social Sciences Interdepartmental Program .... B.A.

Sociology Department
Sociology ................................. B.A., M.A., C.Phil., Ph.D.

Spanish and Portuguese Language
Spanish and Portuguese Language ....... B.A.

American Literature and Culture ......... B.A.

World Languages and Literature ........ B.A.

Statistics Interdepartmental Program
Statistics ................................. B.A., M.A., C.Phil., Ph.D.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.A.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.A.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.A.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.A.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

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Sustainable Futures, Center for ................. B.A.

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Sustainable Futures, Center for ................. B.S.

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Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.A.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.S.

Sustainable Futures, Center for
Sustainable Futures, Center for ................. B.A.
DAVID GEFFEN SCHOOL OF MEDICINE

Biological Chemistry Department
Biological Chemistry M.S., Ph.D.

Biomathematics Department
Biomathematics M.S., Ph.D.

Clinical Research M.S.

Biomedical Physics Interdepartmental Program
Biomedical Physics M.S., Ph.D.

Human Genetics Department
Human Genetics M.S., Ph.D.

Medicine Schoolwide Program
Medicine M.D.

Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics M.S., Ph.D.

Molecular and Medical Pharmacology Department
Molecular and Medical Pharmacology M.S., Ph.D.

Molecular, Cellular, and Integrative Physiology Interdepartmental Program
Molecular, Cellular, and Integrative Physiology Ph.D.

Neurobiology Department
Neurobiology M.S., C.Phil., Ph.D.

Neuroscience Interdepartmental Program
Neuroscience Ph.D.

Pathology and Laboratory Medicine Department
Cellular and Molecular Pathology M.S., Ph.D.

GRADUATE SCHOOL OF EDUCATION AND INFORMATION STUDIES

Education Department
Education M.A., M.Ed., Ed.D., Ph.D.

Educational Administration Joint Ed.D. with UCI

Special Education Join Ph.D. with CSULA

Information Studies Department
Information Studies Ph.D.

Library and Information Science M.L.I.S.

Moving Image Archive Studies

Interscience Program

Moving Image Archive Studies M.A.

HENRY SAMUEL SCHOL OF ENGINEERING AND APPLIED SCIENCE

Bioengineering Department
Bioengineering B.S., M.S., Ph.D.

Chemical and Biomolecular 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., M.S., Ph.D.

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

Engineering Schoolwide Programs
Engineering Science M.Eng., M.S., Engr.

Materials Science and Engineering
Materials Engineering B.S., 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.F.A., M.S., Ph.D.

MAYER AND REHHEN LUSKIN SCHOOL OF PUBLIC AFFAIRS

Public Policy Department
Public Policy M.P.P.

Social Welfare Department
Social Welfare M.S.W., Ph.D.

Urban Planning Department
Urban and Regional Planning M.U.R.P.

SCHOOL OF THE ARTS AND ARCHITECTURE

Architecture and Urban Design Department
Architecture B.A.

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

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

Individual Field
Individual Field B.A.

Music Department

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

World Arts and Cultures B.A., M.F.A.

SCHOOL OF DENTISTRY

Dentistry Department
Dental Surgery D.D.S.

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

SCHOOL OF LAW

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

SCHOOL OF NURSING

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

SCHOOL OF THEATER, FILM, AND TELEVISION

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

Individual Field
Individual Field B.A.

Moving Image Archive Studies

Interdepartmental Program
Moving Image Archive Studies M.A.

Theater Department
Theater B.A., M.A., M.F.A.

Theater and Performance Studies C.Phil., Ph.D.
Undergraduate Minors and Specializations

**MINORS**

**College of Letters and Science**
- African and Middle Eastern Studies
- 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
- Asian Languages
- Atmospheric and Oceanic Sciences
- Biomedical Research
- Central and East European Studies
- Chicana and Chicano Studies
- Civic Engagement
- Classical Civilization
- Cognitive Science
- Comparative Literature
- Conservation Biology
- Digital Humanities
- Disability Studies
- Earth and Environmental Science
- English
- Environmental Systems and Society
- European Studies
- French
- Gender Studies
- Geochemistry
- Geography
- Geography/Environmental Studies
- Geology
- Geophysics and Planetary Physics
- Geospatial Information Systems and Technologies
- German
- Germanic Languages
- Global Studies
- Greek
- Hebrew and Jewish Studies
- History of Science and Medicine
- Human Complex Systems
- Italian
- Labor and Workplace Studies
- Language, Interaction, and Culture
- Language Teaching
- Latin
- Latin American Studies
- Lesbian, Gay, Bisexual, and Transgender Studies
- Linguistics
- Mathematical Biology
- Mathematics
- Mexican Studies
- Music History
- Naval Science
- Near Eastern Languages and Cultures
- Neuroscience
- Philosophy
- Political Science
- Portuguese
- Russian Language
- Russian Literature
- Russian Studies
- Scandinavian
- Science Education
- Social Thought
- Society and Genetics
- South Asian Studies
- Southeast Asian Studies
- Spanish
- Spanish Linguistics
- Statistics
- Structural Biology
- Systems Biology

**Graduate School of Education and Information**

- Education Studies

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

**SPECIALIZATIONS**

**College of Letters and Science**
- Computing
- Chemistry
- Communication Studies
- Ecology and Evolutionary Biology
- Economics
- Linguistics
- Mathematics
- Mathematics/Economics
- Molecular, Cell, and Developmental Biology
- Psychology
- Sociology

**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.

- African Studies Interdepartmental M.A./Public Health M.P.H.
- 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.U.R.P.
- Asian American Studies Interdepartmental M.A./Public Health M.P.H.
- Asian Studies Interdepartmental M.A./Social Welfare M.S.W.
- Education M.A., Ph.D., M.Ed., or Ed.D./Law J.D.
- Islamic Studies Interdepartmental M.A./Public Health M.P.H.
- Management M.B.A./Computer Science M.S.
- Management M.B.A./Dentistry D.D.S.

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

- 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./Public Policy M.P.P.
- Philosophy Ph.D./Law J.D.
- Public Health M.P.H./Law J.D.
- Public Health M.P.H./Social Welfare M.S.W.
- Public Policy M.P.P./Law J.D.
- Public Policy M.P.P./Medicine M.D.
- Social Welfare M.S.W./Law J.D.
- Social Welfare M.S.W./Public Policy M.P.P.
- Urban Planning M.U.R.P./Law J.D.

**ARTICULATED DEGREES**

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

- 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
- Public Health M.P.H./Medicine M.D.

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

- African Studies Interdepartmental M.A./Public Health M.P.H.
- 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.U.R.P.
- Asian American Studies Interdepartmental M.A./Public Health M.P.H.
- Asian Studies Interdepartmental M.A./Social Welfare M.S.W.
- Education M.A., Ph.D., M.Ed., or Ed.D./Law J.D.
- Islamic Studies Interdepartmental M.A./Public Health M.P.H.
- Management M.B.A./Computer Science M.S.
- Management M.B.A./Dentistry D.D.S.

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

- 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./Public Policy M.P.P.
- Philosophy Ph.D./Law J.D.
- Public Health M.P.H./Law J.D.
- Public Health M.P.H./Social Welfare M.S.W.
- Public Policy M.P.P./Law J.D.
- Public Policy M.P.P./Medicine M.D.
- Social Welfare M.S.W./Law J.D.
- Social Welfare M.S.W./Public Policy M.P.P.
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- Medicine M.D./Graduate Division health science major Ph.D.
- Oral Biology M.S. or Ph.D./Dentistry D.D.S. or Certificate
- Public Health M.P.H./Medicine M.D.
About UCLA

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

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

This remarkable pool of talent is shared 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, Meyer and Renee Luskin School of Public Affairs and, in the health sciences, the School of Dentistry, David Geffen School of Medicine, and Jonathan and Karin Fielding School of Public Health.

Undergraduates may earn a Bachelor of Arts or Bachelor of Science degree in one of 129 different disciplines; graduate students may earn one of 87 master’s and 110 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 members 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 $1078 million in 2010-11 in extramural grants and contracts to support its research. Each year it hosts hundreds of postdoctoral scholars who share its facilities.

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 the Ronald Reagan UCLA Medical Center, UCLA furthers its tradition of medical outreach and assures the highest quality of care to Los Angeles and

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 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 six medical schools and four law schools, as well as schools of architecture, business administration, education, engineering, and many others.

The UC campuses have a combined enrollment exceeding 236,600 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 30 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 policymaking at both campuswide and systemwide levels.

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 (now called the Humanities Building)—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 581-bed teaching hospital that is now one of the largest and most highly respected in the world.
the world. Low-income families receive top-quality treatment from School of Dentistry clinics on campus and in Venice. The Santa Monica-UCLA Medical Center's Rape Treatment Center offers 24-hour care to victims. The Fielding 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 Health Center at the Union Rescue Mission. 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 in 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 195 buildings on 419 acres house the College of Letters and Science plus 11 professional schools and serve more than 40,675 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 Music Building, and students contemplating a Rodin or Lachaise in the Murphy Sculpture Garden may be unaware of a political rally organizing in Meyerhoff Park.

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 or call (310) 825-8764 or 206-3719.

A LARGE CAMPUS WITH A COMFORTABLE FEEL

The general campus population, some 36,630 students, is enriched by an additional 4,045 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, 89 percent of lower division lecture classes in 2010-11 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 16 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 2011 entering freshman class had an average high school GPA of 4.22, with an average composite score on the SAT Reasoning Test of 1,925 out of a possible 2,400.

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 64 foreign countries to study at UCLA. Ethnic minorities comprise 68.3 percent of the undergraduates and 62 percent of the graduate student population, and international students and scholars presently number over 5,000, making this one of the most popular American universities for students from abroad.
ACADEMIC PROGRAMS

UCLA has a tradition of advancing higher education and the common good through excellence in scholarship, research, and public service. Academic excellence, faculty distinction, and a comprehensive curriculum are hallmarks of the UCLA experience. The College of Letters and Science and 11 graduate and professional schools present an extraordinary richness and diversity of teaching programs. The International Education Office, Summer Sessions, UCLA Extension, and UCLA International Institute provide academic and professional resources to UCLA and the greater Los Angeles community, as well as to the international community.

UCLA COLLEGE AND SCHOOLS

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

INTERNATIONAL EDUCATION OFFICE

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

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

Full details about the academic programs abroad, requirements, and application procedures are available in B300 Murphy Hall, (310) 825-4995. See http://www.ieo.ucla.edu.

EDUCATION ABROAD PROGRAM

The UC Education Abroad Program (UCEAP) offers short- and long-term study programs in cooperation with over 140 host universities and colleges in more than 35 countries throughout the world. Participating students remain registered on their home campuses while studying abroad and receive full academic credit for their work. With careful planning, study abroad should not delay progress toward graduation. While on EAP, students are eligible for financial assistance. See http://www.ieo.ucla.edu/uceap/.

TRAVEL STUDY

Travel Study offers short-term summer programs on five different continents. The Travel Study programs offer UC credit, the promise of an exciting summertime adventure, and intensive learning experiences taught by distinguished UCLA faculty members. Over 20 academic departments offer Travel Study programs that include from 8 to 16 quarter units of UC credit. Financial aid is available for qualified UC students. Registration begins in November for the following summer on a first-come, first-served basis. Travel Study is open to all students at any academic level. There is no grade-point average requirement to participate. See http://www.ieo.ucla.edu/travelstudy/.

NON-UC PROGRAMS

The IEO also advises students about the many study abroad programs available through other universities or outside providers. Students should check with IEO to make sure those organizations are credible and to learn about the policies involved in taking a planned academic leave (PAL) for study abroad and the transfer of credit back to UCLA from other institutions. See http://www.ieo.ucla.edu/nonucprograms/.

SUMMER SESSIONS

Throughout the summer, UCLA offers more than 700 courses from approximately 60 UCLA departments in six-, eight-, nine-, and 10-week sessions. In addition, more than 30 specialized institutes offer concentrated programs in business, the arts, law, medicine, languages, and other subjects. Travel Study programs offer the option to study various subjects as part of an exciting and challenging travel experience. 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. Some special programs are designed for advanced high school students.

Although visiting students are welcome to enroll, 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 a 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 a 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, (310) 825-4101. See http://www.summer.ucla.edu.

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.

To obtain the current UCLA Extension Catalog, request a copy at http://www.uclaextension.edu or contact the Registration Office, 113 UCLA Extension Building, 10995 Le Conte Avenue, (310) 825-9971.

UCLA INTERNATIONAL INSTITUTE

The UCLA International Institute comprises more than 20 multidisciplinary research centers that focus on major regions of the world and on global issues that cut across regional boundaries. The institute serves as the focal point for international research and teaching at UCLA. It also coordinates formal agreements concerning student exchange and research collaboration with foreign universities.

The U.S. Department of Education has recognized the institute’s excellence in area studies by designating National Resource Centers in East Asia, Europe, Latin America, Near East, and Southeast Asia, and the National Heritage Language Research Center. The Asia Institute acts as a catalyst for interdisciplinary teaching and research among six specialized Asian studies centers. The Burke Center for International Relations fosters research and promotes discussion on relevant topics of international relations, U.S. foreign policy, global, political, military, and economic matters, and international law and dispute resolution. All of the centers have formed extensive scholarly alliances with institutions of higher education around the world.

The institute is also home to the Fulbright Program for Greater Los Angeles, which hosts international Fulbright scholars and introduces them to the community. The International Visitors Bureau serves as a liaison between UCLA and international academic and professional leaders while hosting more than 500 visitors each year in programs that incorporate the intellectual, cultural, ethnic, and linguistic diversity of the campus and greater Los Angeles. The Center for World Languages provides research that enhances foreign language teaching, learning, and testing to meet student, academic, and professional needs and serves local, national, and international agencies in the design, implementation, and evaluation of programs dedicated to modern language education. See http://www.international.ucla.edu or call (310) 825-4811.

RESEARCH PROGRAMS

At any given time, more than 6,000 funded research programs are in progress at UCLA. For more information on the Organized Research Units listed below, see https://vcr.ucla.edu/organized-research-units-orus-1.

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.

BRAIN RESEARCH INSTITUTE

The Brain Research Institute (BRI) has one of the largest programs for neuroscience research and education in the country, with nearly 300 scientists from 27 departments 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 and secondary school outreach program and a joint educational program with UCLA Extension. See http://www.bri.ucla.edu or call (310) 825-5061.

CENTER FOR EUROPEAN AND EURASIAN STUDIES

The Center for European and Eurasian Studies (CEES) 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 sponsors an interdepartmental undergraduate major and provides fellowships to graduate students in European area studies. See http://www.international.ucla.edu/euro/ or call (310) 825-4060.
**Center for Medieval and Renaissance Studies**

The Center for Medieval and Renaissance Studies (CMRS) supports the research activities of some 140 faculty members in 28 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.cmrs.ucla.edu](http://www.cmrs.ucla.edu) or call (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.c1718cs.ucla.edu](http://www.c1718cs.ucla.edu) or call (310) 206-8552.

The center administers the William Andrews Clark Memorial Library, located 13 miles from UCLA, that 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.clarklibrary.ucla.edu](http://www.clarklibrary.ucla.edu) or call (323) 731-8529.

**Center for the Study of Women**

The Center for the Study of Women (CSW) draws on the expertise of more than 200 faculty members from 10 professional schools and 34 departments. To facilitate faculty research, the center organizes conferences and lecture series on feminist theory, administers research grants, and offers an affiliation for research and visiting scholars. The center sponsors working groups, produces calendar of events posters, and hosts graduate programs, as well as an annual graduate student research conference. See [http://www.csuw.ucla.edu](http://www.csuw.ucla.edu) or call (310) 825-0590.

**Cotsen Institute of Archaeology**

The Cotsen Institute of Archaeology seeks and studies 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 35 researchers and many graduate students and volunteers in 11 associated academic departments. Facilities include the Ceramics Research Group, Cotsen Digital Archive, Lithic Analysis Research Group, Moche Archive, Rock Art Archive, and many laboratories such as the Channel Islands Laboratory, East Asian Laboratory, Human Origins Laboratory, and Zooarchaeology Laboratory. It publishes the findings of scholars from UCLA and other archaeology centers and provides a forum for the public presentation of archaeological discoveries and advances. See [http://www.ioa.ucla.edu](http://www.ioa.ucla.edu) or call (310) 206-8934.

**Crump Institute for Molecular Imaging**

The Crump Institute for Molecular Imaging (CIMI) brings together physical, biomathematical, chemical, biological, and clinical scientists and students to merge the principles of imaging with those of molecular and cellular biology, genetics, and biochemistry. The imaging domains range from the molecular organization of viruses and cellular subunits to the biological processes of organ systems in the living human. A major focus is the development and use of imaging technologies to collect, analyze, and communicate biological data. The institute has research and educational programs for visiting scientists, postdoctoral scholars, and Ph.D. graduate students that include the development of multimedia computer-based learning technologies. See [http://www.crump.ucla.edu](http://www.crump.ucla.edu) or call (310) 825-4903 or 825-6539.

**Dental Research Institute**

The Dental Research Institute (DRI) fosters excellence in research, professional research 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 neuropathology. 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.dentistry.ucla.edu/research/research-centers-and-institutes](http://www.dentistry.ucla.edu/research/research-centers-and-institutes) or call (310) 206-3048.

**Gustave E. von Grunebaum Center for Near Eastern Studies**

The von Grunebaum Center for Near Eastern Studies (CNES) coordinates research and academic programs related to the Near East. It sponsors the degree programs in African and Middle Eastern Studies and in 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/](http://www.international.ucla.edu/cnes/) or call (310) 825-1181.

**Institute of American Cultures**

The Institute of American Cultures (IAC) 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 Chicano/Chicanas. See [http://www.iac.ucla.edu](http://www.iac.ucla.edu) or call (310) 825-6815.
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.bunche.center.ucla.edu or call (310) 825-7403.

American Indian Studies Center

The American Indian Studies Center (AISC) serves as an educational and research catalyst and includes a library, postdoctoral fellowship programs, a publishing unit that produces books and a quarterly journal, and a student/community relations unit. See http://www.asic.ucla.edu or call (310) 825-7315.

Asian American Studies Center

The Asian American Studies Center (AASC) 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, and postdoctoral fellowships. See http://www.aasc.ucla.edu or call (310) 825-2974.

Chicano Studies Research Center

The Chicano Studies Research Center (CSRRC) 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. The center also includes a library, academic press, and grant fellowship programs. See http://www.chicano.ucla.edu or call (310) 825-2363.

Institute for Research on Labor and Employment

The interdisciplinary research program of the Institute for Research on Labor and Employment (IRLE) studies employment relationships, including labor markets, labor law, 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 relationships programs to the public, unions, and management. The academic unit of the institute oversees the Labor and Workplace Studies minor. See http://www.irle.ucla.edu or call (310) 794-5957.

Intellectual and Developmental Disabilities Research Center

The Intellectual and Developmental Disabilities Research Center (IDDRC) provides laboratories and clinical facilities for research and training in intellectual and developmental disabilities. Interdisciplinary activities range from anthropological studies to molecular aspects of inherited metabolic diseases. See http://www.mrrc.npi.ucla.edu/iddrc/home.aspx or call (310) 825-9395 or 825-6429.

James S. Coleman African Studies Center

The Coleman African Studies Center (JSCASC) 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 Affairs, Public Health, and Theater, Film, and Television. The center sponsors public lectures, seminars, publications, and academic exchanges with African institutions and an outreach service to the Southern California community. See http://www.international.ucla.edu/africa/ or call (310) 825-3686.

Jules Stein Eye Institute

The Jules Stein Eye Institute (JSEI) is one of the best equipped centers for research and treatment of eye diseases in the world. This comprehensive facility is dedicated to the preservation of vision and prevention of blindness, the care of patients with eye disease, and education in the broad field of ophthalmology. Outpatient, inpatient, and surgical facilities are provided. See http://www.jsei.org or call (310) 825-5053.

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

Latin American Institute

The Latin American Institute is a major regional, national, and international resource on Latin America and hemispheric issues. The institute sponsors and coordinates research, academic and public programs, and publications on Latin America in the humanities, social sciences, and professional schools and links its programs and activities with developments in the field and in other

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At any given time, over 5,000 funded research programs are in progress at UCLA.

in institutional settings. By combining instruction, research, and service and by encouraging multidisciplinary and interdisciplinary approaches, the institute promotes the use of UCLA Latin American resources for the benefit of the campus, the broader community, and the public at large. See http://www.international.ucla.edu/lai/ or call (310) 825-4571.

MOLECULAR BIOLOGY INSTITUTE
The Molecular Biology Institute (MBI) promotes molecular biology research and teaching at UCLA, with emphasis on genomics, proteomics, and chemical biology. The institute houses the laboratories of 30 MBI members and the Institute for Genomics and Proteomics, as well as the administration of the Molecular Biology Interdepartmental Ph.D. Program and the UCLA ACCESS to Programs in the Molecular, Cellular, and Integrative Life Sciences. See http://www.mbi.ucla.edu or call (310) 825-1018.

PLASMA SCIENCE AND TECHNOLOGY INSTITUTE
The Plasma Science and Technology Institute (PSTI) is dedicated to research of plasma physics, fusion energy, and the application of plasmas in other disciplines. Students, professional research staff, and faculty members study basic laboratory plasmas, plasma-fusion confinement experiments, fusion engineering and nuclear technology, computer simulations and the theory of plasmas, space plasma physics and experimental simulation of space plasma phenomena, advanced plasma diagnostic development, 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/ or call (310) 825-4789.

UCLA-DOE INSTITUTE FOR GENOMICS AND PROTEOMICS
The UCLA-DOE Institute for Genomics and Proteomics, funded through a Department of Energy (DOE) contract, conducts research in bioenergy, carbon capture, microbial genomics, and structural and functional studies of organisms and their constituents. Institute faculty members have joint appointments in academic departments and teach at both undergraduate and graduate levels. Major facilities include a biomedical cyclotron, advanced scanning equipment, and macromolecular crystallization, nuclear magnetic resonance, protein expression, and X-ray crystallography facilities. See http://www.doe-mbi.ucla.edu/overview or call (310) 825-3754.

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 (http://www.astrobiology.ucla.edu)—which is developing new strategies for Mars exploration—and the Jonsson Comprehensive Cancer Center (http://www.cancer.ucla.edu)—one of only 40 comprehensive centers in the nation. For a list of research centers, laboratories, and institutes, see http://www.research.ucla.edu/labs/.

Interdisciplinary activities in the social sciences include the nationally respected UCLA Anderson Forecast (http://www.uclaforecast.com) in UCLA’s John E. Anderson Graduate School of Management and the Center for Study of Evaluation and the National Center for Research on Evaluation, Standards, and Student Testing (http://www.cse.ucla.edu) in the Graduate School of Education and Information Studies, which are at the forefront of efforts to improve the quality of education and learning in America.

In the health sciences, research ranges from improving the quality of life for Alzheimer patients and caregivers at the UCLA Alzheimer’s Disease Center (http://www.adc.ucla.edu) to epidemiology, immunology, and the clinical management of AIDS at the UCLA AIDS Institute (http://aidsinstitute.ucla.edu) and the Center for Clinical AIDS Research and Education (http://www.uclahealth.org/homepage_site.cfm?id=1926). The Fernald Child Study Center (http://www.psych.ucla.edu/center-and-programs/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 (http://www.ipam.ucla.edu) makes connections between a wide spectrum of mathematicians and scientists and broadens the range of applications in which mathematics is used. The UCLA Logic Center (http://www.logic.ucla.edu) fosters teaching and research in logic, broadly understood to include all areas of mathematical and philosophical logic, as well as the applications of logic to philosophy, linguistics, and computer science. On other frontiers, the Center for Embedded Networked Sensing (http://research.cens.ucla.edu), 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 Study of Urban Poverty (http://www.csup.ucla.edu) initiates new research on issues related to urban poverty and sponsors seminars in the field. The Center for Policy Research on Aging (http://publicaffairs.ucla.edu/content/center-policy-research-aging) addresses the significant issues of an aging society through policy analysis, dissemination of information, and technical assistance to the public and private sectors.

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 scholarly needs.
ART GALLERIES AND MUSEUMS

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.

FOWLER MUSEUM AT UCLA

The Fowler Museum at UCLA 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, Asia and the Pacific, and the Americas, past and present. It supports UCLA instruction and research and sponsors major exhibitions, lecture programs, and symposia. The museum is open to the public Wednesday through Sunday. For more information on hours and admission, see http://www.fowler.ucla.edu or call (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, photographs, and artists’ books, including nearly 10,000 works from the prestigious Armand Hammer Daumier and Contemporaries Collection. A study and research facility for the benefit of students and the community, the center’s permanent holdings include significant European and American examples from the fifteenth century to the present. It is particularly noted for its collection of German Expressionist prints and works on paper by Matisse and Picasso, as well as the Richard Vogler Cruikshank Collection and the Frank Lloyd Wright Collection of Japanese prints. The center is open only by appointment. See http://hammer.ucla.edu/collections/detail/collection_id/5 or call (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, Arp, Falkenstein, Lachaise, Lipchitz, Moore, Miró, Hepworth, Noguchi, 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://hammer.ucla.edu/collections/detail/collection_id/6 or call (310) 443-7055 or 443-7041.

NEW WIGHT GALLERY

The New Wight Gallery is an exhibit space for visual arts, including student and faculty exhibitions. The gallery is housed in 1100 Broad Art Center, (310) 825-0557. See http://www.art.ucla.edu/gallery/index.html.

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 performances and storytelling series, music, poetry readings, and lunchtime art talks, are presented throughout the week. For information on programming, hours, and docent tours, see http://hammer.ucla.edu or call (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 nine million volumes, and nearly 78,000 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. The UCLA Library Catalog contains records for all UCLA Library holdings and other campus collections, including the Archive Research and Study Center of the Film and Television Archive, Chicano Studies Research Center Library, Ethnomusicology Archive, Social Science Data Archive, Instructional Media Collections and Services, and William Andrews Clark Memorial Library. It also provides library item location and circulation status.

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

While continuing to develop and manage collections of traditional printed materials, the UCLA Library also makes a number of digital resources available for campus use through the library site. These include 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 Affairs Building, the Arts Library collects material on architecture, architectural history, art, art history, design, film, television, 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. Performing Arts Special Collections, housed in the Young Research Library, contain noncirculating materials including the Artists’ File, archival records of major Southern California motion picture studios and television production companies, scripts from film, television, and radio, animation art, personal papers of writers, directors, and producers, photographs and production stills, posters, lobby cards, press kits, and West Coast theater playbills. See http://www.library.ucla.edu/libraries/arts/index.cfm or call (310) 206-5425.
About UCLA

Charles E. Young Research Library
The Young Research Library primarily serves graduate research in the humanities, social sciences, education, public affairs, government information, and maps. Most of its collections are arranged in open stacks. The building also houses reference, circulation, graduate reserve, and periodicals services and the Microform and Media Service, with microcopies of newspapers, periodicals, and other materials. The Department of Special Collections contains rare books and pamphlets, primarily in the humanities, social sciences, and visual arts, from the fifteenth to twentieth century. University Archives, early maps and atlases, early California newspapers, manuscript collections, transcripts of oral history, ephemera, microfilm, tape recordings, prints, paintings, and drawings, including original architectural drawings. See http://www.library.ucla.edu/libraries/researchlibrary/index.cfm or call (310) 825-4732 or 825-1323.

College Library
The College Library, located in the Powell Library Building, features collections and services in support of the undergraduate curriculum in the humanities, social and physical sciences, and mathematics. Course reserve materials, including books, articles, audiotapes, homework solutions, lecture notes, and Academic Publishing Service Readers, are available for loan. The College Library Instructional Computing Commons, located on the first floor of Powell Library, provides students with access to computers and multimedia equipment, and Night Powell provides study space in a late-night reading room. See http://www.library.ucla.edu/libraries/college/index.cfm or call (310) 825-1938 or 825-9389.

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/library.xml or call (310) 825-3138.

Hugh and Hazel Darling Law Library
The Darling Law Library collects published case decisions, statutes, and codes of the federal and state governments of the U.S. and other common law jurisdictions, legal treatises and periodicals in Anglo-American and international law, and appropriate international and comparative law holdings. The Law Library reports to the dean of the School of Law and contains over 580,000 bound volumes. See http://www.law.ucla.edu/library/Pages/default.aspx or call (310) 825-4743 or 825-6414.

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, chemistry, biochemistry, zoology, plant sciences, psychology, and life sciences, as well as rare works in the history of health and life sciences, botanical illustration, and Arabic and Persian medical manuscripts. It contains over 678,000 print volumes and 3,170 journal subscriptions. See http://www.library.ucla.edu/libraries/biomed/index.cfm or call (310) 825-4904.

Music Library
The collections of the Music Library in the Schoenberg Music Building include books, music scores, sheet music, video and sound recordings, microforms, and interactive media on Western music history and criticism; world music styles, cultures, and traditions; and music theory, aesthetics, philosophy, and organology. It also houses the Archive of Popular American Music, a special collection of published and manuscript sheet music, recordings, and related materials. Performing Arts Special Collections, housed in the Young Research Library, include rare printed and manuscript books, scores, and opera libretti; personal papers of prominent Southern California composers, performers, and writers on music; and archives of film, television, and radio music. See http://www.library.ucla.edu/libraries/music/index.cfm or call (310) 825-4882 or 825-1353.

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/index.cfm or call (310) 825-4856.

Science and Engineering Library
The Science and Engineering Library (SEL) collections on engineering, mathematics, and the physical sciences are housed in two separate locations. SEL/Engineering and Mathematical Sciences in Boelter Hall houses materials on aeronautics, astronomy, and atmospheric sciences; bioengineering; chemical, civil, electrical, environmental, manufacturing, mechanical, and nuclear engineering; computer science and electronics; energy technology; mathematics; metals and materials; pollution; and statistics. SEL/Geology-Geophysics in the Geology Building houses materials on geology, geophysics, geochemistry, space physics, planetary science, regional geology, paleobiology, micropaleontology, invertebrate paleontology, ore deposits, geomorphology, hydrology, and chemical oceanography. See http://www.library.ucla.edu/libraries/ sel/index.cfm or call (310) 825-4951, 825-1055, or 825-3982.
SPECIAL ARCHIVES AND COLLECTIONS

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

CULTURAL CENTER COLLECTIONS

The Bunche Center for African American Studies Library and Media Center (http://www.bunchecenter.ucla.edu) contains materials reflecting the African American experience in the social sciences, arts, and humanities. The American Indian Studies Center Library (http://www.asic.ucla.edu/lib/aislibrary.shtml) 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/Library (http://www.aasc.ucla.edu/library/default.asp) features Asian and Pacific Island American resources.

Materials related to Chicano and Latino cultures are housed in the Chicano Studies Research Center Library (http://www.chicano.ucla.edu/library/default.asp), and the William Andrews Clark Memorial Library (http://www.clarklibrary.ucla.edu) contains rare books, manuscripts, and other noncirculating materials on English culture (1641 to 1800). The English Reading Room (http://www.english.ucla.edu/index.php/english-reading-room) features a noncirculating collection of British and American literature, literary history, and criticism.

INSTRUCTIONAL MEDIA COLLECTIONS AND SERVICES AND LABORATORY

The Instructional Media Collections and Services, 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. Staff members monitor compliance with University guidelines and federal copyright law governing the use of video recordings. Reference books from educational and feature film distributors are available. Staff members assist in researching media on any subject and obtaining materials from outside sources. See http://www.oid.ucla.edu/units/imcs/ or call (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/units/ilmab/ or call (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 300,000 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, Charleton Heston, Rock Hudson, and other persons of prominence in the American film industry.

The Television Collection is the nation’s largest university-based collection of television broadcast materials. Its titles include kinescopes, telefilms, and videotapes spanning television history from 1946 to the present, with emphasis on drama, comedy, and variety programming. A special collection of over 100,000 news and public affairs programs is also maintained.

The archive’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 or call (310) 206-8013.

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

OTHER COLLECTIONS

The Ethnomusicology Archive (http://www.ethnomusic.ucla.edu/archive/) houses over 100,000 sound and audiovisual recordings of folk, ethnic, and non-Western classical music, while the Social Science Data Archive (http://dataarchives.ss.ucla.edu) contains a collection of statistical databases for the social sciences. The UCLA Lab School Gonda Family Library (http://www.labschool.ucla.edu/learning/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 members 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 or call (310) 825-6635.

Training and consulting services include classes and online seminars in statistical applications, high-performance computing, scientific visualization, and geographic information systems. See http://www.ats.ucla.edu/classes/ or send an e-mail to atsstat@ucla.edu.

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.softwarecentral.ucla.edu or call (310) 206-4780.

**ADVANCED TECHNOLOGIES**

Advanced Technologies offers integrated services to faculty members. 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/clusters/hpc/ or send an e-mail to atshpc@ucla.edu.

**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 or call (310) 206-7133 or 206-6004.

**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 Ecology and Evolutionary Biology Department include marine fishes from the Eastern Pacific and Gulf of California, and birds and mammals primarily from the Western U.S., Canada, Mexico, and Central America. The department also maintains a more limited collection of amphibians, reptiles, and fossil vertebrates. See http://www.eeb.ucla.edu/dickey/ or call (310) 825-1282.

**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 https://www.dlam2.ucla.edu or call (310) 794-2571.

**MARINE SCIENCE CENTER**

The Marine Science Center coordinates marine-related teaching and research on campus and facilitates interdepartmental interaction of faculty members 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 or call (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 or call (310) 825-1260 or 206-6707.

**STUNT RANCH SANTA MONICA MOUNTAINS RESERVE**

The University of California founded the UC Natural Reserve System (NRS) in 1965 to preserve undisturbed natural areas representing the state’s vast ecological diversity for students, teachers, and researchers from public and private educational institutions to use as outdoor classrooms and living laboratories. The Stunt Ranch Santa Monica Mountains Reserve, administrated by the Los Angeles campus, officially joined the UC NRS in November 1995. The 310-acre site is a 40-minute drive from UCLA and includes fine examples of chaparral and oak woodland ecosystems. The reserve lends itself to programs that focus on the natural ecosystems and issues of resource management in the urban/wildland interface. Undergraduate and graduate courses in the departments of Anthropology, Earth and Space Sciences, Ecology and Evolutionary Biology, Geography, Physics and Astronomy, and the Institute of the Environment and Sustainability utilize Stunt Ranch and other NRS sites. See http://stunt.ranch.ucnrs.org or call (310) 206-3887.
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 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 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. Wireless Internet access is available in select campus locations for BOL account holders. BOL Internet access software can be downloaded from the BOL website. Help desk services are available online, by telephone at (310) 267-4357, and at the BOL office in Kerckhoff Hall. See http://www.bol.ucla.edu.

COMPUTER LABORATORIES

Student laboratories are supported through Academic Technology Services (ATS) and the College Library Instructional Computing Commons (CLICC, http://www.clicc.ucla.edu), a collaborative effort between ATS, Center for Digital Humanities (http://www.cdh.ucla.edu/labs/), Social Sciences Computing (http://computing.ssnet.ucla.edu), Office of Instructional Development, and College Library. Some 15 computer laboratories are available throughout the campus, each with computers, peripherals, software, and services that cater to specific areas of study. See the websites listed above for further information.

COURSE WEB PAGES

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

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.uclaestore.com/ucla/outerweb/lecturenotes.asp or call (310) 825-8016.

Academic Publishing provides custom course readers, obtaining 5,000 copyright authorizations each year. See http://www.uclaestore.com/ucla/outerweb/academicpublishing.asp or call (310) 825-2831.

MYUCLA

MyUCLA provides a portal to individual student information. Features include a personalized Study List showing classes and personal 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 or call (310) 206-4525.

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 Tuesday at 1 a.m. 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 UCLA Degree
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Audits, or see term grades. URSA also provides a convenient way to enroll in classes, to verify enrollment appointment times, and to view real-time enrollment counts.

Veterans Affairs Services

The Veterans Affairs coordinator, 1113 Murphy Hall, (310) 825-5391, 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 educational benefits under VA chapters 30-32, 35, and 1606.

Services for Health and Safety

Arthur Ashe Student Health and Wellness Center

The Ashe Student Health and Wellness Center in Westwood Plaza (310-825-4073) is an outpatient clinic for UCLA students. Most services are subsidized by registration fees, and a current BruinCard is required for service. Core (prepaid) services include visits, most procedures, X-rays, and some laboratory procedures. Non-core (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.

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

Consult the Ashe Center website 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 on a fee-for-service basis.

Mental Health Services

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

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

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

In addition, Campus Assault Resources and Education (CARE) counselors—individuals who provide information, support, and resources for members of the UCLA community who have been raped 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.

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

CAPS 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 for more information).

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 or call (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://map.ais.ucla.edu/go/1000806 or call (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 36, campus buildings, and residence halls Monday through Thursday from 6 to 11 p.m. See http://map.ais.ucla.edu/go/1001008 or call (310) 825-4774.

UCLA Campus Assault Resources and Education (CARE) Prevention and Education Services—including workshops, self-defense classes, counseling, and
ASSOCIATED STUDENT SERVICES

Founded when UCLA opened in 1919, the Associated Students UCLA (ASUCLA) provides services to the campus community through student government, student media, 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 and professional 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 or call (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 student 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 Vietnamese Student Union. See http://www.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.

The Cultural Affairs Commission sponsors all exhibits in the Kerckhoff Hall Art Gallery and the JazzReggae Festival. See http://www.culturalaffairscla.com or call (310) 825-6564.

PUBLICATIONS, WEB, AND BROADCAST MEDIA

Publications and media provide a training ground for aspiring writers, journalists, photographers, and media managers while serving the communication needs of the campus community. Most publications offices are in Kerckhoff Hall. See http://www.studentmedia.ucla.edu or call (310) 825-2787.

Daily Bruin

The Daily Bruin, with a circulation of 10,000, is one of the largest daily newspapers in Los Angeles. As the principal outlet for campus news, the Bruin is published each weekday of the academic year (once a week during the summer) and is distributed free from kiosks around campus and local areas. Students work as reporters, editors, designers, photographers, videographers, and radio reporters, as well as advertising sales representatives and marketing account executives. New staff members are welcome every quarter. See http://www.dailybruin.com or call (310) 825-9898.

Newsmagazines

Seven print newsmagazines reflecting the diversity of the campus community are published each term. Al-Talith, Fem, Ha’Am, La Gente de Aztlan, Nommo, OutWrite, and Pacific Ties deal respectively with issues relevant to the Muslim; feminist; Jewish; Chicano, Latino, and Native American; African American; lesbian, gay, bisexual, and transgender; and Asian communities. Each includes news and features on political and cultural affairs both on and off campus. Prospective staffers are welcome.
Online Media
Student Media supports the Bruinwalk community portal website at http://www.bruinwalk.com. Features include UCLA professor reviews, used book trading, reviews of apartments near UCLA, and a campus calendar.

UCLAradio
UCLAradio broadcasts live over the Internet from http://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, (310) 825-6955; all positions, including on-air, news staff, and advertising representatives, are open to students.

UCLA Yearbook
The UCLA yearbook, BruinLife, is one of the largest student publication efforts on campus. Available each June, it contains photographs and information on undergraduate students, graduating seniors, athletic teams, fraternities and sororities, and campus activities. Students who would like to participate may contact the yearbook staff. See http://www.bruinlife.com or call (310) 825-2640.

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

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.com.

The UCLA Store—Ackerman Union, (310) 825-7711, has eight 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 sportswear for men and women, plus an extensive Clinique counter. Market is a convenience store, with snacks, health and beauty aids, gifts, and greeting cards.

UCLA Store—Health Sciences, http://www.uclastore.com/uclahss/, (310) 825-7721, specializes in books and supplies for students in dentistry, medicine, nursing, public health, and related areas.

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 five residential plazas accommodate over 10,000 undergraduate 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 application must be completed online by the deadlines set by the housing office. See http://map.ais.ucla.edu/go/1001744. Students applying for Winter or Spring Quarter are assigned on a space-available basis in the order applications are received.

OTHER SERVICES AND ENTERPRISES
ASUCLA oversees a variety of other services ranging from a post office to a hair salon. Most are located in Ackerman Union.

Students preparing to graduate can use the Campus Photo Studio, http://www.collegestore.org/ge2/portraits.asp, (310) 206-8433 or 206-0889, for their senior yearbook portraits. Graduation Etc., http://www.uclastore.com/gradetc/, (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 Game On, (310) 794-2122, with PC, Xbox 360, PS3, and Wii electronic games.
Per-person costs for the academic year start at $10,802. Consult the housing office for the range of price options. See http://map.ais.ucla.edu/go/1005183.

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 or call (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

Within walking distance of campus, the University maintains seven off-campus apartment buildings for full-time single transfer and upper division students. Apartments vary from singles to three-bedroom units, with bedrooms usually shared by two or three students. Not all types of apartment spaces are available to entering students. See http://map.ais.ucla.edu/go/1001723 or call (310) 983-1300.

Off-campus apartments for married, single-parent, and single graduate students include unfurnished studio, one-, two-, and three-bedroom units, some located within walking distance of campus and others 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 applications for married and family housing. See http://map.ais.ucla.edu/go/1001376 or call (310) 398-4692.

The UCLA Community Housing Office provides information and listings for non-University-owned apartments, cooperatives, private apartments, roommates, rooms in private homes, and short-term housing. Rental listings are updated daily. The 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 or call (310) 825-4491.

Many of the fraternities and sororities at UCLA own chapter houses. Complete information and membership requirements are provided by Fraternity and Sorority Relations. See http://www.greeklife.ucla.edu or call (310) 825-4491.

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 Job Bank, which offers multiple services to support students who are veterans and members of the military. See http://www.cho.ucla.edu or call (310) 825-3945.

CAREER CENTER

The UCLA Career Center, located in the Strathmore Building, offers career planning and employment assistance free to all UCLA students. See http://career.ucla.edu or call (310) 206-1915.

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 resources, including 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.

The campus offers multiple services to support students who are veterans and members of the military.
through the Career Center’s 24-hour BruinView™ online listings. Students and recent graduates looking for full-time, entry-level career positions may access hundreds of current professional, managerial, and technical openings in numerous career fields. Seniors and graduate students may participate in campus interviews for positions in corporations, government, not-for-profit organizations, elementary and secondary schools, community colleges, and four-year academic institutions. Annual career fairs and special events offer additional opportunities to meet potential employers.

**CENTRAL TICKET OFFICE**

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

**CHILDCARE**

UCLA Early Care and Education (ECE) operates three child care centers near the University and student housing. Care is provided for children two months to six years old at most centers. Fees depend on the age of the child. A limited number of state grants and partial scholarship subsidies is available for eligible student families. See http://www.ece.ucla.edu or call (310) 825-5086.

The ECE Child Care Resource Program helps parents make off-campus child care arrangements and coordinates a Choosing Child Care Forum each month. See http://map.ais.ucla.edu/go/1000688 or call (310) 825-8474.

The ECE University Village Kindergarten Program offers a multicultural, full-day science-based curriculum for five-year-old children of UCLA students, faculty, and staff. It also offers summer enrichment activities. See http://map.ais.ucla.edu/go/1000391 or call (310) 915-5827.

University Parents Nursery School is a UCLA-affiliated, parent-participation multicultural cooperative school for two- through five-year-old children of UCLA students, faculty, and staff. See http://upns.bol.ucla.edu or call (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.

The Dashew Center for International Students and Scholars assists students with questions about immigration, employment, government regulations, financial aid, academic and administrative procedures, cultural adjustment, and personal matters. The center seeks to improve student and community relationships, helps international students with language, housing, and personal concerns, and sponsors cultural, educational, and social programs. The center is a designated Sexual Harassment Information Center for international students and a Harassment Information Center available to all UCLA students (see Harassment in the Appendix for more information). In addition, the center provides visa assistance for faculty members, researchers, and postdoctoral scholars. See http://www.internationalcenter.ucla.edu or call (310) 825-1681.

**LESBIAN GAY BISEXUAL TRANSGENDER CAMPUS RESOURCE CENTER**

The Lesbian Gay Bisexual 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, training seminars, and social activities and maintains a library of 4,000 books, periodicals, and films. The staff provides confidential assistance and support to students, faculty, and staff who feel they have experienced harassment or discrimination or who wish to connect to the campus LGBT community. See http://www.lgbt.ucla.edu or call (310) 206-3628.

**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, the Americans with Disabilities Act (ADA) of 1990, and University policies. Services include campus orientation and accessibility, note takers, readers, sign language interpreters, Learning Disabilities Program,
Parking permits are assigned through a point system. Due to limited availability, parking at UCLA is offered online or at the CSI office in the Strathmore Building at Strathmore Drive and Westwood Plaza. Information on these and other commuting options, including an extensive network of public transit, are available online or at the CSI office in the Strathmore Building. See http://www.transportation.ucla.edu or call (310) 794-7433.

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 harassment cases). The office is in the Strathmore Building. See http://www.ombuds.ucla.edu or call (310) 825-7627.

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 Services and Information (CSI) Office is the best place for information on transportation options. Many students form or join existing UCLA carpools or vanpools. Students can use Zimride (http://www.zimride.com/ucla), a Facebook application, to find one-time rides or create a carpool with fellow Facebook users. More than 160 vanpools (http://www.transportation.ucla.edu/apps/gen_apps/vanpool/vans.asp, 310-206-7565) commute to UCLA from 85 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).

Information on these and other commuting options, including an extensive network of public transit, are available online or at the CSI office in the Strathmore Building at Strathmore Drive and Westwood Plaza. See http://www.transportation.ucla.edu or call (310) 794-7433.

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, 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 call the CSI office at (310) 794-7433.

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 term.

Student Parking Request forms, along with important quarterly due dates and information on how to apply for a parking permit, are available online, by calling (310) 825-6918, or in person at Parking Services. Parking request forms can also be downloaded at http://map.ais.ucla.edu/1000354.

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.osd.ucla.edu or call (310) 825-1501.

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, Messenger, and Distribution Services, which offers full-service document processing and delivery for the campus community. See http://map.ais.ucla.edu/go/1002735 or call (310) 825-0381.

The United States Postal Service operates two express post offices for the campus, including a branch in Ackerman Union. Call (310) 206-5596 for more information.

STUDENT LEGAL SERVICES
Through Student Legal Services in Murphy Hall, currently registered and enrolled students with legal problems or questions about their legal rights can get assistance from attorneys or law students under direct supervision of attorneys. They help students resolve legal problems, including those related to landlord/tenant relations; accident and injury problems; criminal matters; domestic violence and harassment;
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 over 800 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 or call (310) 825-7041.

One major CSP division is Fraternity and Sorority Relations.

Fraternity and Sorority Relations

Fraternities and sororities have been at UCLA since the early 1920s. Today UCLA counts over 68 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 that 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 or call (310) 825-6322.

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

COMMUNITY PROGRAMS OFFICE

The UCLA Community Programs Office (CPO) was established in 1970 by concerned students, staff, and faculty who felt that students’ educational experiences at UCLA should expand outside the classroom and into Los Angeles.

Currently, the CPO houses 23 student-initiated community service projects that provide educational, legal, social, medical, and academic services to underserved communities in Southern California, seven student-initiated outreach projects that seek to improve the number of students from underserved areas of Southern California who attend colleges and universities, and six student-initiated retention projects that seek to ensure that all students who enter UCLA actually graduate. CPO is unique because it provides a multicultural and ethnically diverse environment to the UCLA campus. See http://www.uclacommunityprograms.org or call (310) 825-5969.

PERFORMING ARTS

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

DEPARTMENT EVENTS

The Ethnomusicology Department provides students with the opportunity to perform in various world music and jazz 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 music theater 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 of New Creative Work is a week-long celebration of film, digital media, animation, screenwriting, and acting that features everything from performance art to the classics. See http://www.tft.ucla.edu.

The World Arts and Cultures/Dance Department presents events and concerts involving departmental faculty members, 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 student works festival or Pau Hana, that feature many world dance forms. See http://www.wac.ucla.edu.

CENTER FOR ART OF PERFORMANCE AT UCLA

Since 1937, the Center for Art of Performance at UCLA 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. The center presents more than
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 ranks first in the U.S. in the number of Collegiate Athletic Association (NCAA) championships—second highest in the nation—including 19 in volleyball, 16 in tennis, 11 in basketball, eight each in track and field and water polo, four in soccer, two each in golf and gymnastics, and one in swimming. Students can participate on the varsity level in football, basketball, track, baseball, tennis, volleyball, water polo, golf, soccer, and cross-country. Call (310) 823-8699 for further information.

MEN’S INTERCOLLEGIATE SPORTS

With 11 different varsity sports, the UCLA men’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. Men’s teams have won an overall total of 37 NCAA titles—second highest in the nation—including 11 in softball, seven in water polo, six in gymnastics, five in track and field, four in volleyball, three in golf, and one in tennis. Other nationally ranked teams are those in basketball, swimming, cross-country, and soccer. Call (310) 823-8699 for further information.

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 or call (310) 267-3701.

INTRAMURAL AND CLUB SPORTS

The UCLA Intramural Sports Program, (310) 267-5416, consists of team, dual, and individual sports competition in tournament or league play. Over 1,800 teams and 8,000 participants compete throughout the year in various sports activities ranging from basketball to water polo. UCLA students and recreation membership holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.

The Club Sports Program, (310) 267-5416, 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 archery, badminton, baseball, boxing, Brazilian jiu-jitsu, chess/backgammon, cycling, dragon boat, equestrian, fencing, figure skating, flag football, ice hockey, juggling, kendo, kung fu, men’s and women’s lacrosse, pool sharks, powerlifting, quidditch, men’s rowing, men’s and women’s rugby, running, sailing, snowboarding and skiing, men’s and women’s soccer, softball, surfing, swimming, table tennis, taekwondo, tennis, triathlon, men’s and women’s ultimate, men’s
and women’s volleyball, men’s and women’s water polo, waterskiing, wrestling, and wushu.

**OUTDOOR ADVENTURES**

Outdoor Adventures, (310) 206-1252, 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, canoeing, kayaking, and hiking.

**CLASS PROGRAMS**

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

**FACILITIES**

For registered students who prefer independent recreation and exercise, CRA offers access to many facilities. The John R. Wooden Recreation and Sports Center has multiple gymnasiums, racquetball/squash courts, a weight training facility, rock climbing wall, 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, six lighted tennis courts, sand volleyball court, two multipurpose sports courts, and various meeting rooms and lounges, as well as a challenge course. The UCLA Marina Aquatic Center offers sailing, windsurfing, kayaking, rowing, surfing, and other activities. Students also have the use of Pauley Pavilion, Drake Stadium, Sycamore Tennis Courts, Los Angeles Tennis Center, Intramural Fields, Student Activities Center, and Kaufman Hall for recreational sports and activities.

**YOUTH AND FAMILY PROGRAMS**

Youth and Family Programs, (310) 825-3701, offer exciting activities for children 3 to 17 years old. Summer programs include Bruins on Broadway for ages 8 to 15, Bruins on Water for ages 8 to 10, Camp Adventure for ages 11 to 15, Camp Bruin Kids for ages 5 to 10, Camp Explore for ages 7 to 10, Camp Voyager for ages 11 to 15, Counselors in Training for ages 13 to 17, Sunset Sleepover for ages 7 to 12, Super 7 for ages 7 to 10, Tween/Teen Super 7 for ages 11 to 14, group and private lessons, and the Family Outdoor Entertainment Series. Activities combine play with skill development and deepen the fun in learning.

**UCLA ALUMNI ASSOCIATION**

Celebrating more than 75 years of serving the UCLA community, the UCLA Alumni Association has more than 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.

Membership dues enable the Alumni Association to serve as an advocate on campus and to play the vital role of guardian of the value of every UCLA degree. Dues also support programs such as Blue and Gold Week, Dinner for 12 Strangers, Spring Sing, UCLA Alumni Day, senior events, class reunions, career events, and the scholarship program.

The association offers many benefits and services, including career services. Members make friends, pursue lifelong learning, save money, and make a difference. UCLA graduates, Bruin parents, and friends of the University are invited to take advantage of all the association has to offer. Offices are in the James West Alumni Center. See http://alumni.ucla.edu. Call (310) 825-2586 or, outside Los Angeles County, (800) 825-2586 for further information.
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 or call (310) 825-8764 or 206-3719.

UNDERGRADUATE ADMISSION

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

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

APPLYING FOR ADMISSION

To apply for admission to UCLA, complete the UC Application for Admission and Scholarships. Applicants may apply for the Fall Quarter at http://www.universityofcalifornia.edu/admissions/.

One application is used for the nine 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, School of the Arts and Architecture, School of Theater, Film, and Television, School of Nursing, and Henry Samueli School of Engineering and Applied Science are open for Fall Quarter. The application filing period is November 1-30 of the prior year. See http://www.admissions.ucla.edu/prospect/applying.htm for up-to-date information on application procedures.

NOTIFICATION OF ADMISSION

The UC Undergraduate Application Processing Service e-mails notices to acknowledge receipt of applications. Subsequently, UCLA UARS notifies students of the admission decision. Fall Quarter freshman applicants are notified beginning in late March and transfers in late April.

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

ENTRANCE REQUIREMENTS

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

Fulfilling the minimum admission requirements does not assure admission to UCLA. Admission is based on demonstrated high scholarship in preparatory work going well beyond the minimum eligibility requirements. High school honors level and advanced placement courses are good preparation regardless of the desired major. UCLA offers admission to those students with the best overall academic preparation, viewed in the context of the applicants' academic and personal circumstances, extracurricular and volunteer experiences, and the overall strength of the UCLA applicant pool. 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 summer session immediately following high school graduation are still considered freshman applicants.

MINIMUM ADMISSION REQUIREMENTS

To be considered for admission as a freshman, students must meet the subject 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 a grade of C or better. The requirement consists of 15 year-long courses, with 11 completed by the end of the junior (eleventh grade) year. These are the minimum requirements; students should exceed these requirements whenever possible.

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

b. English. Four years of college preparatory English that include frequent and regular writing, and reading of classic and modern literature, poetry,
and drama. No more than one year of ESL-type courses can be used to meet this requirement.

c. Mathematics. Three years of college preparatory mathematics that include the topics covered in elementary and advanced algebra and two- and three-dimensional geometry (four years are recommended, including trigonometry and calculus). Approved integrated mathematics courses taken in the seventh and eighth grades may be used to fulfill this requirement if the high school accepts them as equivalent to its own mathematics courses.

d. Laboratory Science. Two years of laboratory science (three years are recommended) that provide fundamental knowledge in at least two of the three foundational subjects: biology, chemistry, and physics. Advanced laboratory science courses that have biology, chemistry, or physics as requisites and offer substantial new material may be used to fulfill this requirement. The last two years of an approved three-year integrated science program that provides rigorous coverage of at least two of the three foundational subjects may also be used to fulfill this requirement.

e. Language Other than English. Two years of the same language, other than English (three to four years are recommended). Courses should emphasize speaking and understanding and include instruction in grammar, vocabulary, reading, composition, and culture. Courses in languages other than English taken in the seventh and eighth grades may be used to fulfill part of this requirement if the high school accepts them as equivalent to its own language courses.

f. Visual and Performing Arts. One year-long approved arts course from a single visual and performing arts discipline: dance, drama/theater, music, or visual art.

g. College Preparatory Electives. One year (two semesters), in addition to those required in a to f above, selected from the following areas: history, English, advanced mathematics, laboratory science, language other than English (a third year in the language used for the e requirement or two years of another language), social science, and visual and performing arts (nonintroductory-level courses).

### Scholarship Requirement

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

### Examination Requirement

All freshman applicants must submit scores from either the ACT Assessment plus Writing Tests score or the SAT Reasoning Test score. The tests should be taken by December of the senior year, as they are part of the review process. Students should request that test results be sent directly to UCLA when they take the test.

### Admission Selection

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

Because admission requirements and selection criteria may change, freshman applicants should see [http://www.admissions.ucla.edu/prospect/Adm_tr/tradms.htm](http://www.admissions.ucla.edu/prospect/Adm_tr/tradms.htm) for the most complete and up-to-date information.

### 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 graduation.) Students may not disregard their college record and apply for admission as a freshman.

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

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

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

### Intercampus Transfers

Undergraduate students registered in a regular session at any University of California campus (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 Transfer 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 × 1.5 = 18 quarter units.

College credit for examinations given by national testing services is generally not allowed, except for the AP College credit for examinations given by national test services is generally not allowed, except for the AP

TESTING SERVICES


INTERNATIONAL APPLICANTS

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

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

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

REGISTRATION

Registrar’s Office
1113 Murphy Hall
(310) 825-1091, option 6
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. BruinBill 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/.

E-BILL

BruinBill accounts are administered electronically (e-bill) through URSA. Financial activity is displayed for the current term, as well as account activity for the last 24 months. URSA also provides a link to important communications from the University regarding registration and University policies. Students can pay their BruinBill account electronically using electronic checks or MasterCard, Discover, or American Express credit cards. UCLA converts checks into electronic payments. Those who wish to opt out of this process should send an e-mail to Student Financial Services at askafs@finance.ucla.edu.

ANNUAL UNDERGRADUATE FEES

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

Fees are subject to change without notice by The Regents. See http://www.registrar.ucla.edu/fees/ for updates. The Student Services Fee covers student expenses such as counseling, facilities, registration,
graduation, and health services. The fee is charged whether or not students make use of these services.

**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 the end of the second week. 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 third week are required to pay the course materials fee, which is billed through BruinBill, for the entire term.

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

**Miscellaneous Fees**

Miscellaneous fees include charges for late registration fees payment. Late fees also apply if students file their Study List late or do not pay off BruinBill balances on time. Fees are charged if any check is returned by a bank for any reason. Charges are assessed for most petitions and other special requests. A full list of miscellaneous fees is posted at [http://www.registrar.ucla.edu/fees/miscfee.htm](http://www.registrar.ucla.edu/fees/miscfee.htm).

**Student Health Insurance**

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

Students may improve UCSHIP benefits by enrolling in UCSHIP Plus to add dental benefits. UCSHIP Plus requires either enrollment for the academic policy year or when students are first eligible. See [http://www.studenthealth.ucla.edu](http://www.studenthealth.ucla.edu), click on the SHIP Insurance Info tab, and then select Purchase Dental Insurance (UCSHIP Plus). This must be submitted by the fee payment deadline.

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

**Waiving Ucshep**

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

Students must apply for a UCSHIP waiver online. See the Ashe Center website for details, including a definition of qualified private medical/health insurance. Select the UCSHIP Insurance Info tab on [http://www.studenthealth.ucla.edu](http://www.studenthealth.ucla.edu). Then choose Waive Student Health Insurance Plan (UCSHIP) from the list and follow the prompts.

**Deadlines for Waiving Ucshep**

Third-party individuals may not waive UCSHIP for a student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. The Fall UCSHIP waiver is available between June 1 and the student fee payment deadline. If the 20th falls on a weekend or holiday, the due date is the last business day prior to the 20th. Deadlines are strictly enforced. There are no refunds after the deadline.

The schedule for waiving UCSHIP is as follows:

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

The UCSHIP Fall Quarter waiver website is available between June 1 and September 20, 2012.

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**

California law requires students 18 years and younger to provide proof of immunity to Hepatitis B prior to entering and enrolling at the University of California. The Hepatitis B vaccine is a three-shot series. If students have already received the series in their lifetime, there is no need to repeat it. To satisfy the requirement, all students must submit their information at [http://www.studenthealth.ucla.edu](http://www.studenthealth.ucla.edu) by the beginning of their first term at UCLA.

Students who have not yet completed the series are granted a two-term grace period to comply. Failure to
satisfy the requirement by the third term results in a hold on student records, whereby students cannot enroll in classes or use any University services.

**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 tuition. The 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 tuition, or in the student services, student union, Wooden Center, student programs, activities, and resources complex (SPARC), 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 supplemental 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 tuition and the student services fee at their Campus Human Resources office. Students who use the part-time fee reduction may not also use the UC employee reduction.

**Enrolling in Classes**

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

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

The Schedule of Classes (http://www.registrar.ucla.edu/schedule/) 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 at http://www.ursa.ucla.edu. 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, joining the wait list for a class and checking wait list status, or changing the grading basis for a class. For more information, see URSA in the Enrollment section 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 4 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.

See Enrollment in the 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 a non-UC institution, including UCLA Extension—is not permitted except in extraordinary circumstances, and no credit is given for such courses unless the approval of the UCLA College or school has been obtained by petition prior to enrollment.

INTERSEGMENTAL CROSS-ENROLLMENT

At the discretion of the appropriate campus authorities on both campuses, California Education Code sections 66755 and 66756 (amended by California Senate Bill 361 passed in 1999) allow 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

Undergraduate students enrolled at one campus of the University of California may have the opportunity to attend another UC campus for one quarter or semester on the Intercampus Visitor Program. UCLA students obtain applications from the Registrar's Office, 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 College Academic Counseling in A316 Murphy Hall; students in Arts and Architecture should contact the Student Services Office in 2200 Broad Art Center; Theater, Film, and Television students should contact 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

Undergraduate students may enroll simultaneously in courses offered by another UC campus. Eligible students must be registered (fees paid), in good standing, and enrolled in at least 12 units at UCLA. Students may simultaneously enroll in no more than one UC host-campus course not to exceed 6 units. Before attending the host campus, both campuses must give approval. Approval to enroll simultaneously on another UC campus does not guarantee credit toward specific degree or general education requirements. Application of host-campus courses to UCLA graduation requirements is determined by the College or school. Details are on the application form. Obtain applications and directions for submitting forms from the following offices: honors students, A311 Murphy Hall; student athletes, Morgan Center; AAP students, 1209 Campbell Hall; all other Letters and Science students, College Academic Counseling, A316 Murphy Hall; Arts and Architecture, Theater, Film, and Television, Engineering and Applied Science, and Nursing students, their respective Student Affairs Office. The application is also available at http://www.registrar.ucla.edu/forms/simulenroll.pdf.

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 for the regular academic year is March 2. Applications received after the deadline are considered late, and limited aid is offered.


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.

Students attending UCLA Summer Sessions, Summer Institutes, or UC Cross-Campus Summer Sessions and in need of financial aid must submit a summer financial aid application in addition to the Free Application for Federal Student Aid (FAFSA). Summer applications are available at http://www.fao.ucla.edu.

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 citizen and permanent resident students who apply for aid must provide financial information on the Free Application for Federal Student Aid (FAFSA). If students are financially independent according to the federal financial aid
guidelines, their own financial circumstances are analyzed rather than those of their parents. 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

Grants administered by the California Student Aid programs, funds administered by UCLA, and Cal

The FAFSA is used to apply for all federally funded

permit.

The cost of a student's education as their circumstances

students apply for scholarships on the UC Applica-

the many different scholarship funds. Awards range

Each year approximately $300,000 is awarded from

SCHOLARSHIPS

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

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

Scholarships

The Undergraduate Scholarship Program at UCLA rewards academic excellence and assists with the expenses of an undergraduate education.

Financial need is required 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. Entering students apply for scholarships on the UC Applica-

tion for Admission and Scholarships. Continuing

students must apply using the Undergraduate Scholarship Application for Continuing Students at http://www.fao.ucla.edu. The application is available at the beginning of January and is due by March 2.

In addition to applying for University scholarships, students are encouraged to apply for outside scholarship funding via search engines such as FastWeb, GoCollege, and others.

Regents Scholarships

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

UCLA Alumni Scholarships

Alumni Scholarships are available to California high school graduates who will be UCLA freshmen in the Fall Quarter. Additional scholarships are available 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 $17,500 and are paid over four years; transfer awards are $4,000 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 J. Bunche Freshman Alumni Scholarships, 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 backgrounds to encourage students who add to the diversity of the UCLA campus community. Award amounts range from $4,000 to $17,500. 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, including membership in the Alumni Scholars Club, a student organization dedicated to leadership development and service. Recipients who receive work study or loans as part of a financial aid package receive additional alumni grant monies the first year. Alumni Scholars are eligible to receive additional grant monies in their second, third, and fourth years up to $5,000.
Applicants need not be related to UCLA alumni to apply. The UCLA Alumni Association administers these programs. For more information and applications, see http://alumni.ucla.edu/scholarships/.

**ROTC 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 $500 per month during the academic year. Applications for scholarships may be obtained by calling Army, (310) 825-7381; Air Force, (310) 825-1742; or Navy/Marine Corps, (310) 825-9075. Applications for Army scholarships can also be obtained at http://www.goarmy.com; for Air Force scholarships at http://www.afrotc.com; and for Navy scholarships at https://www.nrotc.navy.mil or by calling (800) 628-7682. Completed applications for four-year scholarships should be submitted prior to August 15 (Navy/Marine Corps) for early consideration, but no later than December 1 (Air Force), January 10 (Army), or January 31 (Navy/Marine Corps) of the year preceding college matriculation. Two- and three-year scholarship applications are also available and are considered when received.

**GRANTS**

Grants are based on need and do not have to be repaid. When awarding policies and funds permit, the financial aid package includes a grant.

**Federal Pell Grants**

Federal Pell Grants are based on exceptional need. They are awarded to undergraduate students who are U.S. citizens or eligible noncitizens and who have not earned a bachelor's degree. Amounts for 2012-13 range from $602 to $5,550 for students enrolled full time. Students who file the FAFSA are automatically considered for a Pell Grant. Eligibility is determined by the federal government. Award amounts depend on a student's Estimated Family Contribution (EFC) and whether enrollment is full time or below.

**Cal Grants A and B**

California residents who attend at least half-time are eligible to apply for a California Student Aid Commission Cal Grant award. The FAFSA and GPA Verification Form are the official applications for these programs. Cal Grant A awards assist low- and middle-income students with tuition and fee costs. They are based on need and grade-point average. Cal Grant B awards are intended to assist low-income and disadvantaged students with living expenses, books, supplies, and transportation costs. First-year awards may also cover registration fee costs. Renewal award recipients receive registration fee assistance. New awards are limited to students who have completed no more than one full-time semester or two full-time quarters or 16 semester units of part-time study or the equivalent. Award amounts are $12,924 for Cal Grant A and $1,551 for Cal Grant B for full-time students (12 units or more). Awards are reduced for students enrolled less than full time.

**University Grants**

University grants provide eligible on-time applicants with financial assistance from state funds. Awards range from $100 to over $15,000 and are based on student need. All undergraduate students who are U.S. citizens, eligible noncitizens, or noncitizens eligible for AB 540 waivers and who apply on time are considered. University grant eligibility is subject to availability of funding. Grants may be exhausted before the end of the academic year.

**Federal Supplemental Educational Opportunity Grants**

Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to undergraduate students with financial need. Awards range from $100 to $800. 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 complete a debt management session at http://www.loans.ucla.edu before funds are released.

All loan recipients must complete an exit interview with the Student Loan Services Office (A227 Murphy Hall, 310-825-9864, http://www.loans.ucla.edu) 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. Exit information is mailed to students by the Student Loan Services Office after receipt of notification of separation from the University.

**Federal Perkins Loans**

Low-interest Federal Perkins Loans are awarded to eligible, on-time applicants who are U.S. citizens or eligible noncitizens; eligibility is subject to availability of funding. The loan limit per academic year is $5,500 for undergraduate students and $8,000 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 begin either six or nine months after graduation or dropping below half-time enrollment.
William D. Ford Federal Direct Loan Program

Direct Loans

Direct Loans are low-interest Subsidized and Unsubsidized Loans financed by the Department of Education. Subsidized Loans are awarded to undergraduate students who have demonstrated financial need. The interest rate is fixed at 6.8 percent for loans dispersed between July 1, 2012, and June 30, 2013. Interest accrues immediately after students graduate or drop below half-time enrollment. Repayment begins six months after students leave school or drop below half-time enrollment.

Unsubsidized Loans are available to undergraduate, graduate, and professional students who are U.S. citizens or eligible noncitizens regardless of income. The interest rate is fixed at 6.8 percent. Interest accrues from the date of disbursement, but students can avoid the extra costs of accrual by making regular interest payments while in school.

Direct PLUS Loans

Direct PLUS Loans are designed to help graduate students and parents of undergraduate students meet the total cost of education. Graduate students and parents may be eligible to borrow up to the cost of education for the academic year less any other financial aid received. This loan is available only to borrowers who do not have adverse credit histories. The interest rate is fixed at 7.9 percent. Borrowers may want to consult a tax adviser to see if this interest is tax deductible.

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<tr>
<th>Annual Limits</th>
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<tr>
<td><strong>Subsidized Loans</strong></td>
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<td>Freshmen</td>
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<td>Sophomores</td>
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<td>Juniors/Seniors</td>
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<td>Graduates (beyond bachelor's degree)</td>
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<td><strong>Unsubsidized Loans</strong></td>
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<td>(Includes any unsubsidized funds awarded)</td>
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<td>Freshmen</td>
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<td>Graduates (beyond bachelor's degree)</td>
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<tr>
<td><strong>Additional Unsubsidized Funding</strong></td>
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<td>(for independent students and students whose parents are denied PLUS loans)</td>
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<tr>
<td>Juniors/Seniors</td>
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<tr>
<td>Graduates (beyond bachelor's degree)</td>
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</tbody>
</table>

Private Loans

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

Short-Term Loans

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

Work-Study Program

The Federal Work-Study Program (FWS) is intended to stimulate and promote part-time student employment, particularly for students from low-income families who are in need of earnings to pursue their studies. Under FWS, the federal government pays a portion of the students’ wage and the employer pays the balance. Through this program, students may work up to 20 hours per week for the university, government agencies, or public and private nonprofit 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.

MAJORS AND DEGREES

Students may choose from over 129 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 to Declare a 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 undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language (ESL), and American History and Institutions. It is each student’s responsibility to see that these requirements are fulfilled.

**ENTRY-LEVEL WRITING**

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

1. Scoring 3, 4, or 5 on one of the College Board Advanced Placement Tests in English OR
2. Scoring 5, 6, or 7 on the International Baccalaureate High Level English A Examination or scoring 6 or 7 on the International Baccalaureate Standard Level English A Examination OR
3. Scoring 680 or higher on the SAT II Subject Test in Writing (last offered in January 2005) or on the SAT Reasoning Test Writing Section OR
4. Scoring 30 or higher on the ACT Combined English/Writing test OR
5. Presenting transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution OR
6. Passing the University of California Analytical Writing Placement Examination (all freshmen from California high schools should have taken the examination during the month of May before they enrolled; others take an examination at UCLA early in their first term)

If students do not meet the requirement in one of the ways described above, Academic Senate regulations require them to enroll in English Composition A, 2, or 2I (determined by performance on the Analytical Writing Placement Examination) as early as possible during their first year in residence. Each course must be taken for a letter grade and passed with a grade of C or better. Students receiving a final grade of C– or less must repeat the course during their next term in residence. Satisfaction of the Entry-Level Writing requirement is a requisite to English Composition 3 and all subsequent English courses.

For further information, see http://www.ucop.edu/elwr/index.html.

**ENGLISH AS A SECOND LANGUAGE**

All entering UCLA students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement are required to take the Analytical Writing Placement Examination (AWPE) or the English as a Second Language Placement Examination (ESLPE). Neither the Test of English as a Foreign Language (TOEFL) nor any other English proficiency test can be submitted or accepted in lieu of the AWPE or ESLPE. Undergraduate students may take the AWPE or ESLPE once only. Unauthorized retakes of the examinations result in an invalid examination score.

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

Transfer students who have completed the English Composition 3 and English 4W equivalent courses at their transfer institution may nonetheless be held for the UCLA ESL requirement at the discretion of Undergraduate Admissions and Relations with Schools (UARS). This includes but is not limited to all students who received a grade below B in either of these equivalent courses. Any transfer student held by UARS to the ESL requirement must take the ESLPE prior to or during the term in which they are to register. Failure to sit for the ESLPE results in a hold on student records. Depending on the ESLPE results, students may be required to successfully complete one or more courses in the English as a Second Language series 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 non-passing score on the examination, students are placed in one or more of the credit-bearing courses—English as a Second Language 33B, 33C, and 35. Students must begin taking courses during their first term in residence at UCLA and must complete each course in sequence with a grade of C or better (C– or a Passed grade is not acceptable). All units are applied toward graduation but cannot be applied toward general education requirements. Certain ESL courses 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 American History and Institutions requirement 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 M171D
   - Chicana and Chicano Studies M159A, M159B, M182, M183
   - Economics 183
   - Gender Studies M147B, M147D
   - Geography 136
   - Study of Religion M142C
   - Equivalent courses completed in UCLA Extension or at another college, university, or institution approved 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 Subject Test in U.S. 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 143A, 143B, 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 that defines the total number of units to be completed, (2) scholarship requirement that defines a minimum grade-point average, (3) residence requirement that defines the amount of study that must be undertaken in residence at the UCLA campus, and (4) course requirements that may include general education courses, reading and composition courses, foreign language courses, and core courses for the field of study. See the College and Schools section of this catalog for details on requirements set by the College and by each of the schools.

DEPARTMENT REQUIREMENTS

Each department or interdepartmental program sets its own degree requirements in addition to those established by the College or school. Department requirements generally include (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 arts, humanities, and social sciences (A334 Murphy Hall, 310-825-2935, http://www.ugeducation.ucla.edu/urhass/) and in science, engineering, and mathematics (2121 Life Sciences, 310-794-4227, http://www.ugeducation.ucla.edu/urc-care/) by supporting scholarly, critical, and creative research. The centers provide mentoring and tutorials, manage the Student Research Program (SRP), and administer research stipends and scholarships. They also sponsor three student-run publications—the Under-
graduate Science Journal, Aleph humanities and social sciences journal, and Westwind literary journal; organize campuswide conferences and events; and coordinate the Student Research Forum that promotes a broader and deeper understanding of university research and helps entry-level student researchers define their place in the larger research community. See http://www.ugresearch.ucla.edu.

**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.ugeducation.ucla.edu/urc-care/.

**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 course 99 in any department and receive 1 unit of credit for each 30 hours of research completed during the term. Science, engineering, and mathematics students should see http://www.ugeducation.ucla.edu/urc-care/srp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urc-care/scholursp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urc-care/scholurfp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urc-care/scholursp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urc-care/scholurfp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urc-care/scholursp.htm.

**UNDERGRADUATE RESEARCH SCHOLARS PROGRAM**

The Undergraduate Research Scholars Program (URSP) offers scholarships from foundations, industry, and individual donors to continuing students (junior-level standing and higher). Applicants must have a strong commitment to research and must complete an honors thesis or a comprehensive independent studies project during the senior year. Applications are accepted during Spring Quarter for the following academic year. Science, engineering, and mathematics students should see http://www.ugeducation.ucla.edu/urc-care/scholursp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urhass/scholarships.htm.

**ACADEMIC RESEARCH COURSES**

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

**INTERNSHIPS AND SERVICE PROGRAMS**

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

**CAREER CENTER**

**INTERNATIONAL AND EXPERIENTIAL LEARNING SERVICES**

The UCLA Career Center, located in the Strathmore Building, offers advice and leads for internships, fellowships, and other experiential learning opportunities in the U.S. and abroad. Many helpful resources are featured in the Career Center Library Internship Zone and on BruinView™. Options for current students and alumni include teaching or volunteering abroad, research or fieldwork, and internships in almost every occupation or industry. All career counselors and peer advisers offer support for students eager to gain hands-on experience. See http://career.ucla.edu.
**CAPSTONE MAJORS AND PROGRAMS**

Capstones are designed to be the culmination of a UCLA undergraduate experience. Capstones range from yearlong sequences of courses or tutorials to a single seminar, and from honors theses to comprehensive seminar projects or internships. They may be based in tutorials, labs, advanced courses, or seminars, and may include either individual projects or team-based projects.

Four levels of UCLA capstone options are illustrated. The four levels represent different expectations for student engagement and independence, ranging from advanced senior seminars or project courses that require a comprehensive term paper, performance, or product design, to individually designed majors. The percentages listed indicate the expected participation of seniors at each of the four levels. It should be noted that some students might complete capstones at more than one level; for example, a student, having completed an advanced seminar, might decide to engage in an independent study or honors project.

Capstone majors and programs are identified in the Curricula and Courses section of this catalog. See [http://www.capstones.ucla.edu](http://www.capstones.ucla.edu) for more detailed information.

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**MAJORS**

- Aerospace Studies B.S.
- American Indian Studies B.A.
- Art B.A.
- Bioengineering B.S.
- Central and East European Languages and Cultures B.A.
- Chemical Engineering B.S.
- Civil Engineering B.S.
- Classical Civilization B.A.
- Cognitive Science B.S.
- Computational and Systems Biology B.S.
- Computer Science B.S.
- Computer Science and Engineering B.S.
- Design | Media Arts B.A.
- Earth and Environmental Science B.A.
- Ecology, Behavior, and Evolution B.S.
- Electrical Engineering B.S.
- Environmental Science B.S.
- Ethnomusicology B.A.

- European Studies B.A.
- Film and Television B.A.
- French B.A.
- Geology B.S.
- Geology/Engineering Geology B.S.
- Geology/Paleobiology B.S.
- Geophysics/Applied Geophysics B.S.
- Geophysics/Geophysics and Space Physics B.S.
- German B.A.
- Global Studies B.A.
- Greek B.A.
- Greek and Latin B.A.
- History B.A.
- Individual Field of Concentration B.A.
- Individual Field of Concentration B.S.
- International Development Studies B.A.
- Italian B.A.
- Italian and Special Fields B.A.
- Latin B.A.
- Marine Biology B.S.

- Materials Engineering B.S.
- Mathematics/Atmospheric and Oceanic Sciences B.S.
- Mathematics for Teaching B.S.
- Mechanical Engineering B.S.
- Music B.A.
- Music History B.A.
- Neuroscience B.S.
- Nursing (Prelicensure) B.S.
- Psychology B.S.
- Russian Language and Literature B.A.
- Russian Studies B.A.
- Spanish and Community and Culture B.A.
- Spanish B.A.
- Statistics B.S.
- Study of Religion B.A.
- Theater B.A.

**PROGRAMS**

- American Literature and Culture B.A.
- English B.A.
STUDY UNDERGRADUATE PROGRAM

WASHINGTON, DC, FELLOWS INTERNSHIP PROGRAM

The Washington, DC, Fellows internship program supports students seeking summer internships in Washington, DC. Assignments are available with elected officials, government agencies, public interest groups, international organizations, the media, and a wide range of public and private organizations. The program offers advice on searching and applying for internships, as well as housing support and the option to apply for alumni-sponsored scholarships. For further information, send an e-mail to dcinterns@career.ucla.edu.

QUARTER IN WASHINGTON, DC

The Center for American Politics and Public Policy (CAPPP) selects undergraduates each fall, winter, and spring to participate in its Quarter in Washington Program. The program offers an exciting opportunity to combine UCLA courses with research and field experience. Students live at the UC Washington Center for up to 12 weeks, dividing their time between coursework and a part-time internship placement. They are registered as UCLA students and earn UC credit in multiple majors (by petition) for all classes taken. The core course, a research development seminar, is multiple-listed in political science, sociology, and history, meets the capstone requirement for the Public Affairs minor, applies toward the Civic Engagement minor, and is eligible for College Honors consideration. At least one course in a subject other than political science, such as economics or history, is usually offered each quarter. All courses take advantage of Washington’s unique resources for study and research.

UC Washington Center administrators help students find a field placement that complements a substantial research project. Placements have included ABC News, the Brookings Institute, CNN, the Department of Justice, the Kennedy Center, Studio Theatre, the Center for Strategic and International Studies, and various members of Congress. For information, contact the CAPPP office by e-mail at info@cappp.ucla.edu or call (310) 206-3109. See http://www.cappp.ucla.edu/quarterinwashington/.

TEACHING OPPORTUNITIES

Exciting teaching programs prepare undergraduate students for careers in teaching or education and allow them to serve in classrooms in the Los Angeles area. Many teaching opportunities are offered in conjunction with the Graduate School of Education and Information Studies (GSE&IS), which helps coordinate programs leading to various instructional credentials or to graduate study.

EDUCATION STUDIES MINOR

The Education Studies minor provides a sequence of core and elective courses designed to introduce students to key issues, research, and policies in education. Students participate in a range of seminar and practicum courses to fulfill program requirements. The program office is in 1009 Moore Hall. See http://gseis.ucla.edu/academic-programs/education-studies-minor and the program description in the Curricula and Courses section of this catalog.

JOINT MATHEMATICS/EDUCATION PROGRAM

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

MATHEMATICS FOR TEACHING B.S.

The Mathematics for Teaching capstone major is designed primarily for students planning to teach mathematics at the high school level. It provides exposure to a broad range of mathematical topics, especially those appropriate for the prospective teacher. Students who complete the major automatically complete the Mathematics Department’s CA-approved subject matter program. At the end of their senior year, students may request a letter from the Mathematics Student Services Office verifying their completion of these
courses and thus their subject matter competence for the CA Single Subject Teaching Credential in Mathematics. See the degree description in the Curricula and Courses section of this catalog.

**SCIENCE TEACHER EDUCATION PROGRAM**

The Science Teacher Education Program (STEP), cosponsored by the College of Letters and Science and GSE&IS, allows science majors to observe and participate in classrooms in schools in the Los Angeles area and to begin teacher education courses in their senior year. Students earn a preliminary teaching credential the summer after the bachelor's degree is received and a master’s in education the following academic year. For details, e-mail Dr. Arlene Russell at russell@chem.ucla.edu or contact any science department undergraduate counseling office. See http://www.college.ucla.edu/cateach/ or call (310) 794-2191.

**TEACHER EDUCATION PROGRAM**

The Teacher Education Program allows students to obtain both a Master of Education degree and a preliminary multiple or single subject credential in a full-time, two-year program that provides clinical classroom experience and has students employed as full-time teachers in their second year. See http://centerx.gseis.ucla.edu/teacher-education/.

**TeachLA**

TeachLA is a University Internship Program associated with GSE&IS. University interns are full-time employees of Los Angeles Unified School District and engage in five terms of credential coursework and fieldwork. On successful completion, interns receive a preliminary multiple or single subject credential. The program is a collaboration between GSE&IS, Los Angeles Unified School District, United Teachers Los Angeles, and UCLA Extension. See http://centerx.gseis.ucla.edu/teacher-education/pathways/teachla.

**UCLA CALIFORNIA TEACH**

The UCLA California Teach program encourages and supports undergraduate students who are interested in exploring K-12 mathematics and science teaching as a potential career. Courses include 30 hours of observation, participation, and assisting in K-12 schools, and seminars to support those field experiences. See http://www.college.ucla.edu/cateach/ or call (310) 794-2191.

**VISUAL AND PERFORMING ARTS EDUCATION MINOR**

The Visual and Performing Arts Education minor in the School of the Arts and Architecture provides a sequence of courses designed to introduce students to the key issues and methodologies in the field of arts education and to a broad range of possible careers in the arts, including K-12 teachers, museum educators, arts administrators, teaching artists, and arts advocates. The arts education teaching sequence, an important component of the minor, consists of a series of three courses in which selected undergraduate students explore core issues in arts education, creativity, and social justice and then are assigned to K-12 classrooms in the Los Angeles area where they first observe and then implement an eight-week sequential arts-based lesson plan under supervision of their guiding teacher. The program office is in 2101 Broad Art Center. See http://www.arts.ucla.edu/vapae and the program description in the Curricula and Courses section of this catalog.

**UCLA CENTER FOR COMMUNITY LEARNING**

The UCLA Center for Community Learning serves faculty members, undergraduate students, and community partners through academic courses and programs, including credit-bearing internships, service learning courses, community-based research, AmeriCorps service scholarships, and two Astin Civic Engagement Scholarship programs. It is home to the undergraduate minor in Civic Engagement, the only one of its kind among research universities. The office is in A265 Murphy Hall, (310) 825-7867. See http://www.communitylearning.ucla.edu.

**UNIVERSITY OF CALIFORNIA CENTER SACRAMENTO**

The University of California Center Sacramento (UCCS) is operated by UC Davis and cosponsored by the UC Office of the President. The center’s long-term goal is to bring together UC faculty members with undergraduate and graduate students to pursue research related to state government, politics, and public policy. UCCS is open to all juniors and seniors with a 3.0 grade-point average. For more information, send an e-mail to uccs@college.ucla.edu. See http://uccs.ucdavis.edu.

**LOWER DIVISION SEMINAR PROGRAMS**

**COLLEGIUM OF UNIVERSITY TEACHING FELLOWS**

The Collegium of University Teaching Fellows (CUTF) offers outstanding graduate students the opportunity to develop and teach lower division seminars in their area of expertise. These unique courses cover all areas, from the humanities to the life, physical, and social sciences. Undergraduate students take courses that are at the cutting edge of a discipline and benefit from a small-seminar environment. GE and honors credit is granted for most seminars, which are offered in Winter and Spring Quarters only. Enrollment is limited. For further information, contact the Office of Instructional Development, 70 Powell Library, (310) 206-8998. See http://www.oid.ucla.edu/students/cutf/.
HONORS COLLEGIUM

The Honors Collegium, a series of interdisciplinary honors courses, offers a unique educational experience where students learn how to think critically and creatively and how to communicate effectively. Courses emphasize the breadth of an interdisciplinary approach to learning and focus on small classes and individual attention. See http://www.honors.ucla.edu/hchome.html.

FIAT LUX FRESHMAN SEMINAR PROGRAM

Fiat Lux seminars provide students with an opportunity to share ideas in class—an important academic skill that can be acquired only through practice. These 1-unit seminars, taught by distinguished faculty members from across UCLA, introduce freshman students to topics of intellectual importance and encourage them to participate in critical discussions with a small group of peers. The program takes its name from the motto of the University of California: Fiat Lux—Let There be Light! For details about seminar offerings each term, see the Schedule of Classes at http://www.registrar.ucla.edu/schedule/. For more information about the program, see http://www.fiatlux.ucla.edu.

ADVISING AND ACADEMIC ASSISTANCE

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

NEW STUDENT AND TRANSITION PROGRAMS

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

During the academic year, additional programs are offered to provide academic advising and successful transition to the second year. For more information, contact the New Student and Transition Programs office in 201 Covel Commons, (310) 206-6685. See http://www.newstudents.ucla.edu.

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 College Academic Counseling. ASK peer counselors are undergraduate students from the College of Letters and Science trained to respond to student questions and concerns in several convenient settings. No appointments are required, just walk up and ASK. Peer counselors make referrals and provide information about academic rules and regulations, deadlines, and petitions and, as peers, can provide valuable personal experience.

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

COLLEGE ACADEMIC MENTORS

Letters and Science college academic mentors (CAMs) are graduate students who mentor primarily undergraduate lower division students to successfully navigate a large research university. In addition to addressing issues related to academic success, CAMs provide information and referrals to campus resources that focus on undergraduate achievement. Many CAMs have served as teaching assistants and can give unique perspectives on faculty members, course selection, major requirements, and preparation for and application to graduate school. See http://www.ugeducation.ucla.edu/counseling/cam.html.

For appointments, go to Window 1, A316 Murphy Hall. CAMs are also available in selected departments and through http://my.ucla.edu via the Virtual Counseling link.

ACADEMIC ADVANCEMENT PROGRAM

The Academic Advancement Program (AAP), built on principles of social justice, has a threefold mission: (1) to ensure the academic success, retention, and graduation of students who have been historically underrepresented in higher education, (2) to increase the numbers of AAP students entering graduate and professional schools, and (3) to develop the academic, political, scientific, economic, and community leadership necessary to transform society. AAP promotes academic achievement and
excellence by providing students with an array of academic services.

Students are eligible for AAP if their academic profiles and personal backgrounds may impact their University experience and their retention and graduation from UCLA. Students are also eligible if they are part of any federally funded program that requires counseling, tutoring, or mentoring. For more information, contact AAP New Student Programs in 1230 Campbell Hall. See http://www.aap.ucla.edu or call (310) 206-1571.

**ACADEMIC COUNSELING**

College counselors at AAP holistically counsel students to facilitate their academic and personal success by empowering them with the knowledge and guidance to thrive in their undergraduate careers and beyond. 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. See http://www.aap.ucla.edu/counseling/overview.html or call (310) 825-1481.

**CENTER FOR COMMUNITY COLLEGE PARTNERSHIPS**

The Center for Community College Partnerships (CCCP) develops academic partnerships between California community colleges, particularly those with large underrepresented populations, and the University to improve student competitiveness for UC admissions and increase the diversity of the UCLA transfer admit pool. The CCCP Scholars Program offers peer mentoring and several academic residential summer programs to help prepare students for transfer to a four-year university and to help institutions develop a transfer culture through a critical race theory framework. See http://www.aap.ucla.edu/cccpc/overview.html or call (310) 267-4441.

**MENTORING AND RESEARCH PROGRAMS**

AAP offers several programs aimed at helping students achieve academic and professional goals beyond the bachelor's degree.

**Community Development and Social Justice Program**

The Community Development and Social Justice (CDSJ) Program assists undergraduate students interested in graduate and professional schools. The program works in the fields of public health, public policy, social welfare, and urban planning to increase 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. See http://www.aap.ucla.edu/mentoring/cdsj.html or call (310) 794-4186.

**Educators for Tomorrow Scholars Program**

The Educators for Tomorrow (EFT) Scholars Program aims to advance a new generation of socially conscious leaders interested in careers in education. It provides AAP students with opportunities to meet faculty members and students in the Graduate School of Education and Information Studies to get involved in community service programs, internships, and service learning courses. Students in the program work with teachers at local public schools as volunteers and participate in educational roundtables. See http://www.aap.ucla.edu/mentoring/ef.html or call (310) 794-4186.

**Graduate Mentoring and Research Programs**

The Graduate Mentoring and Research Programs offer all AAP students one-on-one mentoring in preparation for graduate studies and professional school admission. The office also offers a variety of workshops on graduate school topics. See http://www.aap.ucla.edu/mentoring/grad_prep.html or call (310) 794-4186.

**Junior Scholars Program**

The Junior Scholars Program gives second-year AAP undergraduate students the opportunity to develop entry-level research projects in the humanities and social sciences. Over two academic terms, students meet regularly with graduate mentors and a faculty member. See http://www.aap.ucla.edu/mentoring/junior_scholars.html or call (310) 794-4186.

**McNair Research Scholars Program**

The McNair Research Scholars Program prepares low-income, first-generation, and historically underrepresented undergraduate students for the best graduate programs in the country. The program works with 26 students annually to prepare them for Ph.D. programs in the humanities or social sciences. Students conduct an independent research project and participate in an intensive summer program. See http://www.aap.ucla.edu/mentoring/mcnair.html or call (310) 794-4186.

**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. See http://www.aap.ucla.edu/counseling/peer_counselors.html or call (310) 825-1481.

**PEER LEARNING**

AAP Peer Learning services promote academic excellence. Most peer learning facilitators 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 sessions are held in small groups that foster discussion and allow students to listen to and articulate new and different perspectives. See http://www.aap.ucla.edu/tutoring/peer_learning.html or call (310) 206-7771.
There are many opportunities for eligible students in AAP to receive need-based scholarship funds. Some awards require application; others are available through nomination. Call (310) 206-1805 for further information.

AAP’s six-week intensive academic residential summer program for incoming freshman and transfer students prepares historically underrepresented, low-income, and first-generation college-going students with the academic rigors and demands of a research university. Students are able to build a network of academic resources and friends prior to the regular school year that provides interaction with students from diverse backgrounds and broadens life experiences.

Students enroll in two or three University courses that meet UCLA requirements for graduation and receive support in small groups or individual sessions from teaching assistants and peer learning facilitators. Freshmen have the option of taking classes offered in the writing or mathematics/science intensive programs. Transfer student preparation involves the social and life sciences. Academic counselors are available to assist students in shaping their educational plan toward graduation. See http://www.aap.ucla.edu/vips/overview.html or call (310) 206-1571.

The Vice Provost Initiative for Precollege Scholars (VIPS) program is a partnership between UCLA and the Los Angeles and Pasadena school districts that prepares historically underrepresented students in 10 high schools to become competitively eligible for admission to UCLA and other flagship universities and to encourage pursuit of graduate and professional education using a social justice framework and holistic approach. VIPS offers peer mentoring, summer programs, Saturday Academies, and research opportunities to scholars and their families. See http://www.aap.ucla.edu/vips/overview.html or call (310) 825-2366.

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

The School of the Arts and Architecture, Henry Samueli School of Engineering and Applied Science, School of Nursing, School of Theater, Film, and Television, and the deans of the five divisions in the College of Letters and Science award Dean’s Honors to deserving students each term. Honors are based on the grade-point average attained within a specified number of units. Consult the College or school for further information.

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.

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.

Departments in the College of Letters and Science 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).

Alpha Lambda Delta and Phi Eta Sigma

Alpha Lambda Delta and Phi Eta Sigma are national honor societies that recognize high achieving first-year students. Membership is based solely on academic achievement 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 or first year at UCLA, or a cumulative 3.5 GPA at the end of the second and/or third terms. Invitations are issued in Winter Quarter, and an induction ceremony is held during Spring Quarter. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall, (310) 825-3871. See http://www.aldpes.ucla.edu.

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 sophomores, 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 and promotes scholastic achievement and altruistic conduct through voluntary service. Invitations are issued in Fall Quarter, and a reception is held in Winter Quarter. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall, (310) 825-3871. See http://ucla.goldenkey.org.

**Mortar Board**

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

To be considered for membership, candidates must have completed 90 units and must have attained at least a B average or be in the highest 35 percent scholastically of the junior class, whichever is higher. Applications are available at http://www.mortarboardatucla.org/apply.html early in Winter Quarter and are due by mid-February. Approximately 40 members are selected each spring by the outgoing chapter. See http://www.mortarboardatucla.org or call (310) 206-5523.

**Phi Beta Kappa**

Phi Beta Kappa is a national academic honors society in the humanities, liberal arts, and sciences, founded at the College of William and Mary in 1776. Membership is conferred for high scholastic standing and is determined by vote of the 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, (310) 206-9667. See http://www.college.ucla.edu/pbk/.

**Tau Sigma**

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

Tau Sigma honors UCLA’s large transfer community for academic achievement and provides leadership, networking, and social activities. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall, (310) 825-3871.
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 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

Diversity, Inclusion and Admissions  
1237 Murphy Hall  
(310) 206-3411  
http://grad.ucla.edu

Meeting the minimum requirements does not ensure graduate admission, which is limited by the number of places and the amount of student support available in UCLA’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 at http://grad.ucla.edu/gasaa/deptinfo/deptinfointro.asp.

### APPLYING FOR ADMISSION

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

### WHEN TO APPLY

Most departments and schools have deadlines in November and December for the following Fall Quarter. Consult the Graduate Division website’s Admissions section for specific deadlines for each major. Some departments also accept applications for Winter and Spring Quarters.

At the discretion of the department, 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 nonrefundable application fee, are specified at http://grad.ucla.edu. Submitted materials are not returnable.

### GRADUATE RECORD EXAMINATION

Applicants who apply for admission to a department or school that requires Graduate Record Examination (GRE) scores should arrange to take the examination no later than December so scores arrive on time. GRE scores should be sent directly to the prospective department and not to the Graduate Division.
university work. The original of an academic record must be certified by the academic institution and it must be issued in the original language in duplicate, for all college and university programs. Applicants should submit official transcripts of record, in the original language, to UCLA. Students with a bachelor’s degree from a university in a country where the official language is not English are required to take the Test of English as a Second Language (TOEFL) or the International English Language Testing System (IELTS) examination, before or during 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.

Graduate students who plan to work as teaching assistants (TAs) and are nonnative English-speaking international students are required to take the Test of Oral Proficiency (TOP), which is administered by the Office of Instructional Development (OID). Students who do not plan to work as teaching assistants do not need to take the TOP. For students receiving a clear pass (7.1 or above) on the TOP, no coursework is required. Students receiving a clear pass (7.1 or above) on the TOP, no coursework is required.
marginal pass (between 6.4 and 7.0) are required to take an approved oral skills course either before or during their first term as teaching assistants. Students scoring 6.3 or below are not eligible to become teaching assistants and are encouraged to complete recommended coursework in English as a Second Language before taking the TOP.

No other oral examination is accepted. Entering graduate students who plan to work as teaching assistants in their first term at UCLA must arrive early enough to take the TOP before instruction begins. The examination schedule and other information about TOP are available at http://www.oid.ucla.edu/units/top/ or call (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., LL.M., 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; Oral Biology in the School of Dentistry; Biological Chemistry, Cellular and Molecular Pathology, Human Genetics, and Molecular and Medical Pharmacology in the Geffen School of Medicine; Molecular Toxicology in the Fielding School of Public Health; and Microbiology, Immunology, and Molecular Genetics in the College of Letters and Science and the Geffen School of Medicine.

**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 that 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 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, (310) 206-6051. See http://www.uclaaccess.ucla.edu.

**First-Year Course Requirements**

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.

In the Fall and Winter Quarters, students take four consecutive five-week courses in biochemistry and molecular biology, genetics, cell biology, and special topics. These courses involve active student participation in small-group, discussion-based courses focused on primary research articles.

Additionally, students are required to take 6 units of elective courses from a list that includes offerings from participating Ph.D. programs. Electives are normally taken in the Spring Quarter. A course in ethics and accountability in biomedical research is also required in the Spring Quarter.

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.

Students who wish to carry out their research in the laboratory of an ACCESS faculty member in the Neurobiology Department must submit an application to transfer into the Neuroscience interdepartmental program.

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 and other degree requirements 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**

Registrar's Office
1113 Murphy Hall
(310) 825-1091, option 6
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. BruinBill 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/.

**E-BILL**

BruinBill accounts are administered electronically (e-bill) through URSA. Financial activity is displayed for the current term, as well as account activity for the last 24 months. URSA also provides a link to important communications from the University regarding registration and University policies. Students can pay their BruinBill account electronically using electronic checks or MasterCard, Discover, and American Express credit cards. UCLA converts checks into electronic payments. Those who wish to opt out of this process should send e-mail to Student Financial Services at askdfs@finance.ucla.edu.

**ANNUAL GRADUATE FEES**

Although the exact cost of attending UCLA varies by program, there are some fees that all UCLA students must pay. UCLA does not charge on a per-unit basis. Each entering and readmitted student is required to submit a Statement of Legal Residence to Diversity, Inclusion and Admissions with the Statement of Intent.
to Register. Students classified as nonresidents of California must pay annual nonresident supplemental tuition in addition to other registration fees. Legal residents of California are not required to pay nonresident supplemental tuition. For a definition of residence and nonresidence, see the Appendix.

**Estimated Annual Fees for 2012-13**

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

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**Total for California residents** $14,809.19

**Nonresident Supplemental Tuition** $15,102.00

**Total for nonresidents** $29,911.19

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

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

**Miscellaneous Fees**

Miscellaneous fees include charges for late registration fees payment. Late fees also apply if students file their Study List late or do not pay off BruinBill balances on time. Fees are charged if any check is returned by a bank for any reason. Charges are assessed for most petitions and other special requests. There is also a fee for advancement to doctoral candidacy. A full list of miscellaneous fees is at http://www.registrar.ucla.edu/fees/miscfee.htm.

**Student Health Insurance**

All UCLA graduate students are automatically assessed for and enrolled in the University of California Student Health Insurance Plan (UCSHIP) as a condition of registration at UCLA. Continued enrollment in a qualified medical/health insurance plan must be maintained during all registered terms. The UCHSIP fee is billed each term along with other UCLA fees. UCHSIP fulfills all of the requirements mandated for a qualified medical/health insurance plan as defined by the University. The Ashe Student Health and Wellness Center is the primary healthcare provider for UCHSIP and is where all nonemergency medical care must be initiated for UCHSIP claim payment consideration. See http://www.studenthealth.ucla.edu.

**Waiving UCHSIP**

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

Students must apply for a UCHSIP waiver online. See the Ashe Center website for details, including a definition of qualified private medical/health insurance. Select the UCHSIP Insurance Info tab on http://www.studenthealth.ucla.edu. Then choose Waive Student Health Insurance Plan (UCHSIP) from the list and follow the prompts.

**Deadlines for Waiving UCHSIP**

Third-party individuals may not waive UCHSIP for a student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. The Fall UCHSIP waiver is available between June 1 and the student fee payment deadline. If the 20th falls on a weekend or holiday, the due date is the last business day prior to the 20th. Deadlines are strictly enforced. There are no refunds after the deadline.

The schedule for waiving UCHSIP is as follows:

**School of Law Students**

- Fall Semester
  - LLM: July 1-August 8
  - Years 1, 2, 3: July 1-August 20
- Spring Semester: December 1-20

**School of Medicine Students**

- Fall Semester
  - Fourth year: June 1-20
  - All other years: July 1-20
- Spring Semester: December 1-20

**All Other Students**

- Fall Quarter: September 1-20
- Winter Quarter: December 1-20
- Spring Quarter: March 1-20

The UCHSIP Fall Quarter waiver website is available between June 1 and September 20, 2012. 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 Refunds**

Students who formally withdraw from the University or take an approved leave of absence may receive partial refunds of fees. For more information, see Withdrawal in the Academic Policies section of this catalog or consult the Schedule of Classes for policy details and specific refund deadlines for each term.
**FEE DEFERRALS**

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

**REDUCED NONRESIDENT SUPPLEMENTAL TUITION**

The annual nonresident supplemental tuition for graduate doctoral students who have advanced to candidacy is reduced by 100 percent, effective the term after the student is advanced. Doctoral students may receive this reduced nonresident supplemental 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 Student Services Fee) in lieu of full registration fees for the term in which they expect to complete final degree requirements and receive their degree. Students are not eligible to pay the filing fee unless registered in the immediately preceding term. For more information, see http://grad.ucla.edu/gasaa/etd/filingfee.htm.

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.

**IN ABSENTIA REGISTRATION**

Graduate students taking research or coursework leaves of absence outside California may be eligible for in absentia registration and reduction of Tuition and the Student Services Fee to 15 percent of the full amounts. See the Academic Policies section of this catalog for more information.

**ANNUAL BUDGET ESTIMATES**


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.

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 Schedule of Classes (http://www.registrar.ucla.edu/schedule/) 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 at http://www.ursa.ucla.edu. 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 wait list status, or changing the grading basis for a class. For more information, see URSA in the Enrollment section 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 4 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.

See Enrollment in the 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.

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

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

Veterans are required to make normal progress toward the degree as 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, or Spring Quarter) constitutes withdrawal from UCLA.

REGISTRATION IN THE FINAL TERM

If students are completing courses, using faculty time, library facilities, laboratories, or other 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, Medicine, or Nursing or the Department of Social Welfare must complete and return to the Arthur Ashe Student Health and Wellness Center the Health Evaluation forms. Visit the Ashe Center website at http://www.studenthealth.ucla.edu to obtain professional school health clearances and monitor immunization compliance. To schedule a clearance appointment, call (310) 825-4073, option 1, or visit the Ashe Center website. For specific questions related to requirements, contact the individual department.

FINANCIAL SUPPORT

Fellowships and Financial Services Office
1228 Murphy Hall
(310) 825-1025
http://grad.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 (and reentering) students is included in the online Application for Graduate Admission. Continuing graduate students should complete the online Fellowship Application for Continuing Graduate Students. Completed fellowship applications must be returned to the home department by the published deadlines. Some departments have earlier deadlines; consult the Graduate Division website at http://grad.ucla.edu for details.

Financial Support for Entering Graduate Students and Graduate Student Financial 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 nonresident supplemental 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. Some awards, such as university grants, are subject to availability of funding. Students who complete the FAFSA by March 2 should also make sure that any additional requested documentation is submitted to the Financial Aid Office as soon as possible.

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 April 30 for on-time consideration.

Financial aid is also available to UCLA students enrolled in Summer Travel, Summer Institutes, or UC cross-campus Summer Sessions. See http://www.fao.ucla.edu for applications and deadline information.

Financial aid awards include work-study and low-interest loans. Students are usually awarded a financial aid package that is a combination of these forms of assistance. 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://grad.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. In addition to advanced study and research, professional master’s and doctoral programs also may include professional training. This training may take the form of fieldwork, internships, or projects, and may lead to professional licensure.

**University Minimum Standards**

The requirements described here for master’s and 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://grad.ucla.edu and the departmental graduate adviser for details. Policies and regulations are outlined in *Standards and Procedures for Graduate Study at UCLA*, which is available from Academic Services, 1255 Murphy Hall or at http://grad.ucla.edu.

**Academic Residence**

For the master’s degree, the minimum residence requirement consists of three academic terms of registration 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) of registration in graduate standing at the University of California, including one year (usually the second) in continuous residence at UCLA. If students earned a master’s degree at UCLA, one year 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 Academic Services, 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. These unit requirements represent the University minimum standard. Many master’s degree programs have higher unit requirements.

UCLA offers master’s degrees under two plans: Plan I, the Master’s Thesis, and Plan II, the Master’s 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

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

Plan II: Master’s Comprehensive Examination

Following advancement to candidacy, students under Plan II must pass a comprehensive examination. Information concerning this examination and its format (which may be a recital, exhibition, project portfolio, etc.) 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 Standards and Procedures for Graduate Study at UCLA for details on committee membership). To determine qualifications for advancement to candidacy, the committee administers the University Oral Qualifying Examination before oral examinations for advancement to candidacy. Once all departmental and foreign language requirements are met, the department chair consults with the student and then nominates a doctoral committee.

Doctoral Dissertation

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

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

ACADEMIC 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 FOR UPPER DIVISION TUTORIALS

Credit for upper division tutorial courses numbered 195 through 199 in a single term is limited to a maximum of 8 units. Subject to regulations governing Passed/Not Passed grades, students may take these courses on a Passed/Not Passed or a letter-grade basis, but the total number of units allowed in upper division tutorial courses for a letter grade is 32.

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

CREDIT BY EXAMINATION

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

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

GRADUATE GRADES

The following grades are used to report the quality of graduate 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, and 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 Satisfactory 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

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

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

**Passed/Not Passed Grades**

Undergraduate students in good standing who are enrolled in at least 12 units (14 in the Henry Samueli School of Engineering and Applied Science) may take certain courses on a Passed/Not Passed (P/NP) basis. The grade P is assigned for a letter grade of C or better. Units earned this way count toward degree requirements but do not affect the GPA. Students receive neither units nor course credit for 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). 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 an 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, 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) completing and submitting a Cancellation of Registration form, available at http://www.registrar.ucla.edu/forms/, 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 Dental 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 file 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 Student Services Fee may be refunded depending on the date the withdrawal form is filed. The UCSHIP fee is nonrefundable. 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 continuation 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 fees payment is returned by a bank for stopped payment, insufficient funds, or any other reason. No fees are refunded, and future registration privileges may be curtailed or revoked.

UNDERGRADUATE READMISSION

Students who complete a term (Fall, Winter, or Spring Quarter), and do not register the following term, may return to UCLA the subsequent term as a continuing student and be eligible to register and enroll in advance.

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.

PLANNED ACADEMIC LEAVE (PAL) FOR INTERNATIONAL TRAVEL

Students who plan to participate in a study abroad program sponsored by an institution other than UC are required to take a planned academic leave of absence (PAL) from UCLA. After they are accepted into a program, students must register their program with the UCLA International Education Office (IEO), B300 Murphy Hall. Registering the program also generates the student application for the leave of absence. Requirements for programs and registration can be found on the IEO website at http://www.ieo.ucla.edu/nonucprograms/.

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

REENTERING STUDENTS

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

Students must submit official transcripts from all institutions (including UCLA Extension) and a completed

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Statement of Legal Residence with readmission applications. Coursework is evaluated when official transcripts are received. The paper records of nonregistered students, including transcripts submitted for transfer credit, are retained by the Registrar's Office for five academic years after the last registered term.

Students who have not registered for five years must resubmit official transcripts of all work completed outside UCLA. Readmission is generally approved if students were in good academic standing (2.0 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 at (310) 825-1091, option 6.

**GRADUATE READMISSION**

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

**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, or Spring Quarter) constitutes withdrawal from UCLA.

**GRADUATE LEAVE OF ABSENCE**

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

Federal policy governing students on F-1 and J-1 visas restricts leaves of absence to certain conditions. Thereafter, the Dashew Center for International Students and Scholars, in consultation with the Graduate Division, individually evaluates each international graduate student request for a leave of absence to determine that it meets federal (and University) eligibility criteria. Research doctoral students who are new parents or who are confronted with extraordinary parenting demands should consult *Standards and Procedures for Graduate Study at UCLA* in regard to Graduate Council policy requiring program accommodations for them.

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 for the returning term.

The Request for Leave of Absence form is available at http://grad.ucla.edu in the forms section. See the Schedule of Classes calendar for the filing deadline.

**In Absentia Registration**

Academic and professional graduate students taking leaves of absence outside California for research or coursework related to their degree program may be eligible for in absentia registration. Students registered in absentia pay 15 percent of Tuition and the Student Services Fee, but pay the full amounts of other mandatory fees such as health insurance and nonresident supplemental tuition (if applicable). In absentia registration and fee reductions may be used for a maximum of six quarters or four semesters for academic doctoral students, and up to three quarters or two semesters for master's and professional graduate students. For complete details and restrictions, see the FAQ at http://grad.ucla.edu/gss/library/abspetitionfaq.pdf. To register in absentia, complete a Petition for In Absentia Registration at http://grad.ucla.edu/gss/library/abspetition.pdf.

**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://grad.ucla.edu. Payment of the nonrefundable application fee may be paid by credit card only. Transcripts of all academic work completed since registration at UCLA as a graduate student must also be submitted.

**TRANSCRIPTS AND RECORDS**

The transcript 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 paper has a multicolor security 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.”

Two versions of official UCLA student records are available from the Registrar’s Office, 1113 Murphy Hall. These are the academic transcript and the verification transcript. Each is designed to meet specific needs.
ACADEMIC POLICIES

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 two weeks after the last day of the term. For graduating students, academic transcripts with the graduation date included are available approximately seven weeks after the end of the term. 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, and degrees. For auto insurance “good student” discount, insurance forms should be presented at 1113 Murphy Hall. The verification fee is required for this service. 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).

THIRD-PARTY VERIFICATIONS

UCLA has authorized National Student Clearinghouse to act as its agent for all third-party verifications of student enrollment and degrees. Degree verification for the most recent term is available approximately seven weeks after the term ends. The clearinghouse abides by all provisions of the Family Educational Rights and Privacy Act (FERPA). See http://www.studentclearinghouse.org.

ORDERING TRANSCRIPTS

Continuing students must order academic and verification transcripts through URSA. Other students may order transcripts in person at 1113 Murphy Hall, or 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 he or she was registered at UCLA
2. Dates of attendance at UCLA
3. Date of birth
4. 9-digit student ID number, if available
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 Order forms containing this information are available in the Murphy Hall northwest lobby or at http://www.registrar.ucla.edu/forms/.

For UCLA Extension courses, order transcripts from UCLA Extension, P.O. Box 24901, Department K, Los Angeles, CA 90024-0910.

Requests are not processed if students have outstanding financial, academic, or administrative obligations (holds) 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) 825-1091 or by contacting transcripts@registrar.ucla.edu.

FEES AND PAYMENT

Current students’ transcript fees are billed to their BruinBill 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/.

**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 from the admit term. Students may view their documents at the Registrar's Office, 1113 Murphy Hall. Advance notice of two to three days is required for viewing.

**UNIVERSITY RECORDS SYSTEM ACCESS**

Through University Records System Access (URSA), UCLA students acquire academic, financial, and personal information from their University academic records. See http://www.ursa.ucla.edu.

**CHANGE OF NAME OR ADDRESS**

Students who wish to change their name on official University records should fill out a UCLA Name Change or Correction form (available online at http://www.registrar.ucla.edu/forms/ or in the Murphy Hall northwest lobby) and submit it with documentation supporting the name change to the Registrar's Office, 1113 Murphy Hall. Students on an F or J visa must provide a current passport bearing the exact same name as the new name. All name changes are recorded on the transcript. If students change their address, they should update their address through URSA.

**CLOSURE OF STUDENT RECORDS**

Student records are closed to revisions in enrollment, grading, and academic actions on award of a degree. Students are responsible for requesting review of their record prior to award of their degree. See UCLA Procedure 220.1 Student Grievances Regarding Challenge to Content of Student Records Under the Family Educational Rights and Privacy Act, which may be found at http://www.adminpolicies.ucla.edu/app/Default.aspx?cid=220-1.

Changes requested by an individual after award of a degree are considered by the College or school only under extraordinary circumstances. Supportive documentation is required. On action of the academic dean, a statement of the request for revision and a note of the change will be recorded only in the memoranda section of the transcript.

**DEGREES**

Students must satisfy (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 AND EXPECTED CUMULATIVE PROGRESS**

Each school enforces minimum progress regulations. The College enforces expected cumulative progress regulations. Students may be subject to disqualification for failing to meet minimum progress and expected cumulative progress requirements. See the College and Schools section for specific minimum progress and expected cumulative 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://wwwassist.org), the statewide transfer information site. Students can get some knowledge of transfer credit from accredited institutions other than the University of California or California community college by comparing the descriptions of courses taken with those in the UCLA General Catalog.

Once students complete the courses, they must have the other institution send official, sealed 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 x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666—for example, 12 quarter units x .666 = 7.99 or 8 semester units.

**Summer Sessions**

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

**UCLA Extension**

Students who wish to receive degree credit for work taken through UCLA Extension should take courses that correspond in number to the undergraduate courses offered in regular session. The designation XL or XLC before the number of the Extension course signifies that the course is equivalent to the regular session course bearing the same number. Grades earned by undergraduate students in the College of Letters and Science, the School of Arts and Architecture, and the Henry Samueli 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. 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) or UCLA Degree Audit serves as the degree check. The DPR or UCLA Degree Audit is an assessment of all degree requirements and the courses taken to fulfill them. View and print DPRs or UCLA Degree Audits through URSA or order one at a College counseling office (Academic Advancement Program, 1209 Campbell Hall; Honors Programs, A311 Murphy Hall; College Academic Counseling, A316 Murphy Hall). Students should review questions about their DPR or UCLA Degree Audit with departmental undergraduate advisers or College counselors, as appropriate.

**School of the Arts and Architecture**

Degree Progress Reports or UCLA Degree Audits are available through URSA as well as on request from the Student Services Office, 2200 Broad Art Center. Students should consult an adviser in the Student Services Office when they have questions about degree requirements. Questions regarding major requirements should be referred to the departmental counselor.

**Henry Samueli School of Engineering and Applied Science**

Students following a catalog year of 2004-05 or earlier should schedule an appointment to see their academic counselor at 6426 Boelter Hall or by calling (310) 825-9580, to review course credit and degree requirements and for program planning. Students following the 2005-06 and later catalogs use a program called DARS at http://www.seasoasa.ucla.edu/undergraduates/DARS. Students should obtain an official degree check at least one term prior to their graduation term. For details, see the school undergraduate degree audit website at http://www.seasoasa.ucla.edu/seniors/degree-audit.

**School of Nursing**

The UCLA Degree Audit report is available through URSA for students entering Fall 2012 and later. Students who enrolled prior to Fall 2012 may request their most recent degree check from the prelicensure student services coordinator in 2-147 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.grad.ucla.edu.

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.

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 file a UCLA Declaration of Candidacy form at 1113 Murphy Hall. The form is 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 ID is required. Declaring candidacy is not a guarantee of graduation.

IN ABSENTIA GRADUATION
Students who intend to complete degree requirements while nonregistered (those who take a course through UCLA Extension or at another institution, remove an Incomplete grade, and so on) must file a request to graduate in absentia with their degree auditor in 1113 Murphy Hall by the 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 (2200 Broad Art Center for Arts and Architecture students, 6426 Boelter Hall for Engineering students, 2-137 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 effect 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 on award of a degree. Students are responsible for requesting review of their record prior to award of their degree.
A Summary of Shortages for the Bachelor's Degree statement is 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 schools.

DEGREE DATE

Degrees are awarded at the end of Fall, Winter, and Spring Quarters and at the end of Summer Session C. School of Law and School of Medicine degrees are normally awarded at the end of Fall and Spring semesters. 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 six weeks after the end of their final term. To expedite receipt of the diploma, students should return the Diploma Mail Request form, available at http://www.registrar.ucla.edu/forms/. Obtain recorded diploma availability information at (310) 825-8883.

Change of Name

To be reflected on the diploma, name changes must be submitted to the Registrar’s Office, 1113 Murphy Hall, by the last day of the degree expected term. Once the degree is awarded, only a court order will be accepted to make a name change. The replacement diploma fee applies.

Duplicate Diplomas

If the original diploma is destroyed, a duplicate may be ordered by contacting the Registrar’s Office, Diploma Reorder, 1113 Murphy Hall, or by completing the Duplicate Diploma Application available at http://www.registrar.ucla.edu/forms/. 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://grad.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

David C. Schaberg, Interim Dean of Humanities
Victoria L. Sork, Dean of Life Sciences
Joseph A. Rudnick, Dean of Physical Sciences
Alessandro Duranti, Dean of Social Sciences
Judith L. Smith, Dean/Vice Provost of Undergraduate Education

UCLA
2300 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430
(310) 825-9009
http://www.college.ucla.edu

UCLA is one of the world’s premier universities. At the core of the University’s research programs, graduate training, and undergraduate instruction is the UCLA College of Letters and Science. With over 25,170 students and more than 900 faculty members, the College is the largest academic unit in the UC system. The College offers more than 130 majors leading to the Bachelor of Arts, Bachelor of Science, or Bachelor of Arts and Sciences (B.A.S.), as well as to master’s and doctoral degrees.

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

The undergraduate programs in the College stress a liberal arts education that brings together perspectives from many fields in a unified approach to learning. Students learn ways that issues are analyzed, questions are posed, and knowledge is organized. After sampling many general subjects, they concentrate on one field or subject and are required to pursue it rigorously and in depth, according to the standards of scholars in the field. When they reach the graduate level, they pose their own questions, analyze academic issues of their own making and, through their research, participate in the creation of knowledge.

HUMANITIES

The Humanities Division promotes, through scholarly inquiry and the transmission of ideas, sensitive, imaginative, and rigorous reflection on the human condition. Courses in literature help students understand the enduring power of texts both great and small—from cuneiform to manuscript to hypertext. Studies of nearly 100 foreign languages create a gateway to civilizations that span the globe and five millennia of human history. Philosophers provide training in the fundamental principles of logic and moral reasoning, and linguists—both theoretical and applied—illuminate the physiological, cognitive, and social aspects of human language. Musicologists and art historians explore with students the forms and media through which humans have sought to express themselves and to challenge and make sense of their worlds. Programs in the humanities teach students to interpret texts with an informed sensitivity, to evaluate ideas critically, to write clearly and effectively about them, and to be able to question and discuss them with their peers. See http://www.humanities.ucla.edu.

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, cell signaling, and genetics. Neurochemists, neurophysiologists, psycho- biologists, and behavior biologists study the underlying mechanisms of the neural basis of behavior.

Undergraduate programs in the College stress a liberal arts education that brings together perspectives from many fields in a unified approach to learning.

ORGANIZATION OF THE COLLEGE

The College is organized in five divisions, each led by a dean. A description of each division follows.
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. See http://www.lifesciences.ucla.edu.

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 and its environmental impact. The bases for the physical sciences are the fundamental laws and proof of mathematics, chemistry, and physics. Studies in the physical sciences are experimental, theoretical, observational, and computational. Faculty members and students are interested in such topics as the nature and evolution of the galaxies; ozone depletion; nuclear winter; greenhouse effect; molecular recognition, interactions, design, synthesis, and structure; evolution of life and the continents; computational mathematics and symbolic logic; superconducting materials; plasma fusion, space plasmas; and high-energy accelerator physics. See http://www.physicalsciences.ucla.edu.

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 behaviors and relationships through direct observation and the questioning of prevailing theories. In addition, students learn exciting and diverse methods of social and environmental analysis, such as archaeology, linguistics, statistics, game theory, remote sensing and imagery, textual analysis, ethnography, geographic information systems, fieldwork, and ecology. See http://www.scnnet.ucla.edu/college/.

UNDERGRADUATE EDUCATION
The Undergraduate Education Division serves as the campuswide advocate for undergraduate education, promoting academic success for UCLA’s diverse undergraduate population and ensuring options for all students to engage in a challenging array of educational opportunities, from foundational general education courses to advanced research and honors projects. See http://www.ugeducation.ucla.edu.

Academic Advancement Program. The Academic Advancement Program (AAP) is a multiracial, multiethnic, and multicultural program that promotes academic excellence through academic counseling, learning sessions, and mentoring. Students are eligible for AAP if their academic profiles and personal backgrounds may impact their University experience and their retention and graduation from UCLA. See http://www.aap.ucla.edu.

Center for Community Learning. The Center for Community Learning (CCL) serves faculty members, undergraduate students, and community partners through academic courses and programs, including credit-bearing internships, service learning courses, community-based research, and service scholarships. It is home to the undergraduate minors in Civic Engagement and Disability Studies. See http://www.communitylearning.ucla.edu.

Center for Educational Assessment. The Center for Educational Assessment (CEA) provides information and analysis to support planning, program and policy development, and other decision making about undergraduate education at UCLA. See http://www.oid.ucla.edu/units/cea.

College Academic Counseling. College Academic Counseling (CAC) provides College undergraduate students 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.ugeducation.ucla.edu/counseling/.

Honors Programs. Honors Programs offers academic programs and services designed to promote an outstanding honors education, including College Honors, Honors Collegium, Departmental Scholar Program, Individual Majors Program, Phi Beta Kappa, Honors Scholarships, Honors Research Stipends, and specialized counseling and support services for College honors students. See http://www.honors.ucla.edu.

New Student and Transition Programs. New Student Orientation is the first introduction to UCLA for new students. During the three-day first-year student sessions and the one-day transfer student sessions, a unique set of comprehensive and engaging programs is offered to make student transitions to UCLA great ones. See http://www.newstudents.ucla.edu.

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.

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.ugeducation.ucla.edu/src/.

Transfer Alliance Program. The Transfer Alliance Program (TAP) seeks to strengthen academic ties between UCLA and honors programs in over 45 California institutions.
community colleges to provide specialized transfer programs for participating students. See http://www.tap.ucla.edu.

Undergraduate Education Initiatives. Undergraduate Education 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* Freshman Seminar Program, Freshman Cluster Program, Undergraduate Student Initiated Education Program, and Writing II Program. See http://www.ugeducation.ucla.edu/uei/.

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

**UNDERGRADUATE DEGREE REQUIREMENTS**

For a complete list of College 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 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 undergraduate students must satisfy to graduate: (1) Entry-Level Writing or English as a Second Language and (2) American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take 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, writing, 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 or international baccalaureate (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.

**ACADEMIC RESIDENCE REQUIREMENT**

Thirty-five of the final 45 units completed for the bachelor’s degree must be earned in residence in the College. A minimum of 24 upper division units must be completed in the major while in residence in the College. The academic residence requirements apply to all students, both continuing and transfer.

**WRITING REQUIREMENT**

Students must complete the University’s Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the College writing requirement.

New students admitted to the College are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition
are required for graduation. Both courses must be taken for letter grades, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section 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 or an equivalent course 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).

Qualifying examination scores and courses are determined by the College Faculty Executive Committee. Qualifying scores may be viewed on the Office of Undergraduate Admissions and Relations with Schools website. Approved courses are published in the UCLA Schedule of Classes.

**Writing II.** The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a list approved by the College Faculty Executive Committee. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable). Writing II courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm.

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

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning requirement. No transfer student is admitted to the College without completing, with a grade of C or better (C– grade is not acceptable), a college-level quantitative reasoning course that the Office of Undergraduate Admissions and Relations with Schools accepts as equivalent to those approved by the College Faculty Executive Committee.

Approved courses include Biostatistics 100A, 100B, Mathematics 2 (or any higher numbered course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A, 103B, 103C, 105A, 105B, 105C, 189, 189HC, 195, 197, 199), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Statistics 10, 11, 12, 13, 14.

### FOREIGN LANGUAGE REQUIREMENT

The foreign language requirement may be satisfied by one of the following methods: (1) completing a college-level foreign language course equivalent to level three or above at UCLA with a grade of C or Passed or better or (2) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin, thereby earning College credit or (3) presenting a UCLA foreign language departmental examination score indicating competency through level three. Consult the Schedule of Classes or the appropriate department for times and places of the regularly scheduled examinations. Students who wish to demonstrate proficiency in a language that 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 (Applied Linguistics)** 1A-1B-1C or 15 (Swahili): 7A-7B-7C or 17 (Zulu); 11A-11B-11C or 25 (Yoruba); 27 (Xhosa); 29 (Igbo); 31A-31B-31C or 35 (Bambara); 41A-41B-41C or 45 (Hausa); 51A-51B-51C or 56 (Amharic); 55 (Tigrinya); 61A-61B-61C (Wolof); 75 (Chichewa); 85 (Setswana)
- **Afrikaans (Germanic Languages)** 105A and 105B
- **American Sign Language (Linguistics)** 1, 2, and 3, or 8
- **Ancient Near East (Near Eastern Languages)** 120A-120B-120C (Ancient Egyptian); 140A-140B-140C (Sumerian)
- **Arabic (Near Eastern Languages)** 1A-1B-1C or 8
- **Armenian (Near Eastern Languages)** 1A-1B-1C or 4A-4B-4C
- **Berber (Near Eastern Languages)** 101A-101B-101C
- **Bulgarian (Slavic Languages)** 101A-101B-101C
- **Chinese (Asian Languages)** 1, 2, and 3, or 1A, 2A, and 3A, or 8 or 8A
- **Czech (Slavic Languages)** 101A-101B-101C

**QUANTITATIVE REASONING REQUIREMENT**

The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a grade of C or better (C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or higher or an SAT Subject Test in Mathematics score of 550 or higher. Approved UCLA courses and examinations, and qualifying scores, are determined by the College Faculty Executive Committee. Qualifying examinations and scores may be viewed on the Office of Undergraduate Admissions and Relations with Schools website. Approved courses are listed below. Applicable courses may also be applied toward preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning requirement. No transfer student is admitted to the College without completing, with a grade of C or better (C– grade is not acceptable), a college-level quantitative reasoning course that the Office of Undergraduate Admissions and Relations with Schools accepts as equivalent to those approved by the College Faculty Executive Committee.

Approved courses include Biostatistics 100A, 100B, Mathematics 2 (or any higher numbered course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A, 103B, 103C, 105A, 105B, 105C, 189, 189HC, 195, 197, 199), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Statistics 10, 11, 12, 13, 14.
<table>
<thead>
<tr>
<th>Language/Regional Group</th>
<th>Courses</th>
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<tr>
<td>Dutch (Germanic Languages) 103A-103B, and 103C, or 104A-104B</td>
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<td>Filipino (Asian Languages) 1, 2, and 3, or 8</td>
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<td>French (French and Francophone Studies) 1, 2, and 3, or 8</td>
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<td>German (Germanic Languages) 1, 2, and 3, or 8</td>
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<td>Greek (Classics) 1, 2, and 3, or 16; 8A-8B-8C or 15 (Modern Greek)</td>
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<tr>
<td>Hebrew (Near Eastern Languages) 1A-1B-1C or 8</td>
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<tr>
<td>Hindi-Urdu (Asian Languages) 1, 2, and 3, or 3R</td>
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<tr>
<td>Hungarian (Slavic Languages) 101A-101B-101C</td>
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<tr>
<td>Indigenous Languages of the Americas (Linguistics) 17 or 18A-18B-18C (Quechua)</td>
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<td>Indonesian (Asiant Languages) 1, 2, and 3</td>
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<tr>
<td>Iranian (Near Eastern Languages) 1A-1B-1C or 8 or 20A-20B-20C (Persian); 111A-111B-111C (Kurdish); M115A-M115B-M115C (Azeri)</td>
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<tr>
<td>Italian 1, 2, and 3, or 9</td>
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<td>Japanese (Asian Languages) 1, 2, and 3, or 8</td>
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<tr>
<td>Korean (Asian Languages) 1, 2, and 3, or 1A, 2A, and 3A, or 8</td>
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<tr>
<td>Latin (Classics) 1, 2, and 3, or 16</td>
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<tr>
<td>Lithuanian (Slavic Languages) 101A-101B-101C or 103</td>
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<td>Polish (Slavic Languages) 101A-101B-101C</td>
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<tr>
<td>Portuguese (Spanish and Portuguese) 1, 2, and 3, or 11A-11B</td>
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<tr>
<td>Romanian (Slavic Languages) 101A-101B-101C or 103</td>
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<tr>
<td>Russian (Slavic Languages) 1, 2, and 3, or 10 or 11A-13B (two units each) or 15A-15B or 100B</td>
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<tr>
<td>Scandinavian 1, 2, and 3, or 8 (Swedish); 11, 12, and 13 (Norwegian); 21, 22, and 23 (Danish)</td>
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<tr>
<td>Semitics (Near Eastern Languages) 140A-140B and 141 (Akkadian)</td>
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<td>Serbian/Croatian (Slavic Languages) 101A-101B-101C</td>
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<td>South Asian (Asian Languages) 110A (Sanskrit)</td>
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<tr>
<td>Spanish (Spanish and Portuguese) 1, 2, and 3, or 2A and 3A, or 10</td>
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<td>Thai (Asian Languages) 1, 2, and 3, or 3R</td>
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<tr>
<td>Turkic Languages (Near Eastern Languages) 101A-101B-101C (Turkish); 111A-111B-111C (Uzbek); M115A-M115B-M115C (Azeri)</td>
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<tr>
<td>Ukrainian (Slavic Languages) 101A-101B-101C</td>
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<tr>
<td>Vietnamese (Asian Languages) 1, 2, and 3, or 1A, 2A, and 3A, or 8</td>
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<tr>
<td>Yiddish (Germanic Languages) 101A, 101B, and 101C, or 102B</td>
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**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.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the general education requirements.

**Foundations of Knowledge**

Students follow a general education curriculum that is grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

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

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

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

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

**Foundations of Society and Culture.** Three courses, one from each subgroup:

- Historical Analysis
- Social Analysis
- Third course from either subgroup

**Foundations of Scientific Inquiry.**

- Life Sciences
- Physical Sciences

In each subgroup, one of the two courses must be 5 units and carry either laboratory/demonstration or Writing II credit. For students entering Fall Quarter 2009 through Spring Quarter 2014, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units.

Total GE: 10 Courses/48 Units Minimum

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**College of Letters and Science General Education Requirements**

**Foundations of the Arts and Humanities**

- Literary and Cultural Analysis: 1 Course
- Philosophical and Linguistic Analysis: 1 Course
- Visual and Performance Arts Analysis and Practice: 1 Course

Total = 15 units minimum

**Foundations of Society and Culture**

- Historical Analysis: 1 Course
- Social Analysis: 1 Course
- Third course from either subgroup: 1 Course

Total = 15 units minimum

**Foundations of Scientific Inquiry**

- Life Sciences: 2 Courses
- Physical Sciences: 2 Courses

In each subgroup, one of the two courses must be 5 units and carry either laboratory/demonstration or Writing II credit. For students entering Fall Quarter 2009 through Spring Quarter 2014, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units.

Total = 18 units minimum (17 min. Fall 2009-Spring 2014)

Total GE: 10 Courses/48 Units Minimum
Historical Analysis
Social Analysis

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

Foundations of Scientific Inquiry. Four courses, two from each subgroup. One 5-unit course from each subgroup must include either laboratory/demonstration or Writing II credit. For students entering Fall Quarter 2009 through Spring Quarter 2014, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units:
Life Sciences
Physical Sciences

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 important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists. Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult an academic counselor or see http://www.registrar.ucla.edu/ge/.

Advanced Placement Test Credit

Students 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.admissions.ucla.edu/Prospect/APCreditLS.htm. Consult a departmental or College counselor for applicability of AP credit toward course equivalencies or satisfaction of Preparation for the Major requirements.

Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the College GE requirements. Written verification from the dean at the other UC campus is required. Consult 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.

Students who are unable to complete one or two IGETC courses prior to transfer may request certification of partial completion of IGETC from their community college. On certification, the remaining courses must be completed with a minimum grade of C in each. Students who fail to complete the remaining IGETC coursework or who are otherwise not eligible for IGETC or partial IGETC are required to complete the College GE requirements.

DEPARTMENT REQUIREMENTS

College 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 consists of a group of coordinated upper division courses and is designated as departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated by the department. Students who have been away from 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 Capstone 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 that is also a designated capstone major. The consent of the College Honors Programs and the assistance of a faculty adviser are required. Individual majors must be approved by the vice provost for Undergraduate Education.

The individual major must consist of at least 48 and no more than 60 upper division units, a majority of which must be in departments offering a major in the College. A capstone senior thesis of at least 8 but no more than 12 units is required. For details about individual majors, contact the Honors Programs Office, A311 Murphy Hall, (310) 825-1553. See http://www.honors.ucla.edu/individual.html.

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

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

**MINORS AND SPECIALIZATIONS**

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

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

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 and have an overall grade-point average of 3.0. 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 term.

The Degree Progress Report (DPR) or UCLA Degree Audit is a record of degree requirements and the courses taken to fulfill them. Students are responsible for monitoring their progress toward the degree. They must read and understand the 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. College Academic Counseling staff members assist students with College requirements and degree planning and provide DPRs or UCLA Degree Audits on request. Students can also view DPRs or UCLA Degree Audits through URSA.

**MINIMUM PROGRESS/EXPECTED CUMULATIVE PROGRESS**

During a regular term of enrollment, undergraduate students in the College are required to enroll in a minimum of 13 units. Students are also required to meet cumulative progress unit expectations as outlined in the Expected Cumulative Progress Chart at http://www.education.ucla.edu/counseling/exp-cum-prog.html.

The following courses count toward minimum progress and expected cumulative progress but are exempt from the maximum unit limit of 216: 19 (Fiat Lux), 88S (Undergraduate Student Initiated Education seminars), 89 and 189 (honors seminars), 89HC and 189HC (honors contracts), M97X (PEERS lectures), 98X, 98XA, and 98XB (PEERS laboratories), 99 (student research tutorials), 190 (research colloquia), 193 (journal club seminars), 194 (research group or internship seminars), Honors Collegium 101A through 101E, Mathematics 71SL, 72SL, Science Education 1SL, 10SL, and 100SL.

**REDUCED FEE PROGRAMS**

While full-time study is expected and required of students, some students may qualify for part-time study due to compelling reasons of occupation, home and family responsibilities, or health. Under this policy, part-time status is defined as 10 units or less per term based on enrolled units at the end of the third week, and is presumed to be of a permanent nature. On approval of part-time status, a reduction of the tuition fee by one half and a reduction of the nonresident supplemental 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 terms. Once approved for part-time study, students must complete two courses of 10 units or less in each of the three consecutive terms. Only under
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COLLEGE OF

courses; consult the appropriate department regarding that major. Some departments may have higher grade-
be denied the privilege of entering or continuing in (C) in preparation for the major or major courses may
der students are on probation or have begun their last term.
they can complete the new major within the 216-unit

DECLARING A MAJOR

Students are expected to select a major by the beginning
of their junior year. This may be a program of related upper division courses within a single department
(departmental major) or a group of related courses involving a number of departments (interdepartmental major) or, under certain circumstances, a group of courses selected to meet a special need (individual capstone major).

Most entering freshmen are unsure about specific aca-
demic 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 an academic counselor for assistance.

CREDIT LIMITATIONS

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

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. Consult a counselor in College Academic Counseling 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 chart at http://www.admissions.ucla.edu/Prospect/APCreditLS.htm 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, 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 received credit for 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.
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 grade-point average 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 graduates (GPA of 3.895 or better) for summa cum laude, the next five percent (GPA of 3.819 or better) for magna cum laude, and the next 10 percent (GPA of 3.693 or better) for cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree 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 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. For further information, contact the Honors Programs Office in A311 Murphy Hall or see http://www.honors.ucla.edu/deptschl.html.

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 master’s and doctoral degrees. For complete degree requirements, see Program.
Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

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

A. Eugene Washington, Dean and Vice Chancellor

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At the David Geffen School of Medicine at UCLA, faculty members and students play a dynamic role on campus and in the Los Angeles community. Not only are they in the clinics, wards, and operating rooms of the Ronald Reagan UCLA Medical Center and multiple private and public affiliated medical centers, they are also at work in the facilities of many research programs of the school and broader University. They volunteer in community clinics, health fairs, and public schools, and participate in research and clinical care in multiple global settings.

Students at the Geffen School of Medicine 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, a biomedical library that is considered one of the world’s best, and a multidisciplinary global health program. Geffen School of Medicine departments are staffed by a distinguished faculty of respected researchers and practitioners.

DEGREES

The Geffen School of Medicine offers an M.D. degree program, special programs in affiliation with other hospitals and universities, postgraduate medical training programs, and the following master’s and doctoral degrees offered through the UCLA 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.)
- Molecular, Cellular, and Integrative Physiology (Ph.D.)
- Neurobiology (M.S., C.Phil., Ph.D.)
- Neuroscience (Ph.D.)
- Pathology—Cellular and Molecular Pathology (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 therapeutic skills for evidence-based medicine. Clinical skills are taught in the context of anatomical, molecular, pathophysiological, and psychosocial factors in health, disease, and treatment.

The curriculum is an innovative, integrated, organ system-based program, with problem-based learning case studies to link basic, clinical, and social studies. Because medical school is but one phase in a physician’s education, the curriculum stresses self-directed learning to prepare students for a future in which scientific knowledge, social values, and human needs are ever changing. Formats for instruction include lectures, problem-based learning tutorials, seminars, laboratories, standardized patient exercises, and clinical experiences; students are involved in patient care 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, and 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, evidence-based medicine, medical ethics, and clinical reasoning.

For details on the M.D. curriculum or to apply to the program, see http://www.medstudent.ucla.edu/prospective/ or contact the Geffen School of Medicine Admissions Office, 12-105 Center for the Health Sciences, UCLA, Box 957035, Los Angeles, CA 90095-7035. See http://career.ucla.edu/Students/GradProfSch Counseling/Overview for details on the four-year premedical studies program.

SPECIAL PROGRAMS

PARTNERSHIP PROGRAMS

Extending medical education to a broader segment of tomorrow’s physicians and researchers, the Geffen School of Medicine admits a select group of students into two innovative partnership programs. In addition to completing the requirements for the M.D. degree, students engage in specialized coursework and/or projects designed to fulfill the mission of each program.

Charles Drew/UCLA Medical Education Program

The mission of the Charles Drew (CDU)/UCLA Medical Education Program is to train students to
practice medicine with competence and compassion in disadvantaged rural and urban communities. Each year 24 students are admitted to the program. Students spend their first two years at the UCLA campus and complete their last two years of clinical work in specially designated training centers in medically underserved communities and at UCLA and affiliated hospitals. A distinguishing component of the program is the required medical research thesis. See http://www.medsch.ucla.edu/uclaprime/ or call (310) 794-5912.

**POSTGRADUATE MEDICAL TRAINING**

Postgraduate medical training programs, including residencies, are offered through all the clinical departments at UCLA and the affiliated training hospitals such as Harbor-UCLA, Cedars-Sinai, and Greater Los Angeles VA System. Programs at the affiliated institutions broaden the scope of the teaching programs by 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.

**SEMEL INSTITUTE FOR NEUROSCIENCE AND HUMAN BEHAVIOR**

The Semel Institute is one of the world’s leading interdisciplinary research and education institutes devoted to the understanding of complex human behavior. Fourteen research centers, ranging from genetics to human culture, together with research initiatives distributed widely across the academic departments of the Geffen School of Medicine and the College of Letters and Science provide a comprehensive and outstanding research and training environment for the study of neuroscience and behavior.

The research portfolio of the 400 faculty members, graduate students, and fellows who work in the institute spans behavioral genetics, developmental neuroscience, cognitive neuroscience, neuropharmacology, brain imaging, clinical research, health policy, and sociocultural studies of human behavior and its disorders. For further information, see http://www.semel.ucla.edu.

**GRADUATE SCHOOL OF EDUCATION AND INFORMATION STUDIES**

Marcelo M. Suárez-Orozco, Dean

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http://gseis.ucla.edu

The Graduate School of Education and Information Studies (GSE&IS) is dedicated to inquiry, the advancement of knowledge, the improvement of professional practice, and service to the education and information professions. GSE&IS develops future generations of scholars, teachers, information professionals, and institutional leaders. Its work is guided by the principles of individual responsibility and social justice, an ethic of caring, and commitment to the communities it serves.
Faculty members and students of GSE&IS combine a passion and skill for cutting-edge research with an appreciation for its application in the widely diverse cultures and communities in which it exists. These communities serve as fertile training ground for students in all programs, through internships, research projects, summer placements, and teaching opportunities.

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

**DEPARTMENTS AND PROGRAMS**

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

Research-oriented master's and doctoral programs prepare top scholars in their respective fields, while future librarians, archivists, and information professionals, teachers, student affairs practitioners, school administrators, and superintendents are prepared in the various master's and doctoral professional degree programs. Additionally, UCLA Lab School (Corinne A. Seeds campus) provides an innovative educational program for students 4 to 12 years old.

**DEGREES**

The school offers the following degrees, in addition to an undergraduate minor in Education Studies:

- Education (M.A., M.Ed., Ed.D., Ph.D.)
- Educational Administration (Joint Ed.D. with UC Irvine)
- Information Studies (Ph.D.)
- Library and Information Science (M.L.I.S., accredited by American Library Association)
- Moving Image Archive Studies (M.A.)
- Special Education (Joint Ph.D. with California State University, Los Angeles)

**Credential Programs**

The school offers three credential programs that are accredited by the California Commission on Teacher Credentialing:

- Administrative Services Credential
- Preliminary Administrative Services Credential
- Teacher Credential

**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 two concurrent degree programs:

- Education M.Ed., M.A., Ed.D., or Ph.D./Law J.D.
- 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 standards 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—or its equivalent if the letter grade system is not used—is required for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Further requirements for international students are explained in the Graduate Study section. See http://grad.ucla.edu/gasaa/admissions/admisinfo.html.

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

**DEGREE REQUIREMENTS**

Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

**RESEARCH CENTERS AND INSTITUTES**

The centers and institutes outlined below provide GSE&IS with valuable resources that support school programs and research. See http://gseis.ucla.edu/research/research-centers.

**BLACK MALE INSTITUTE**

The Black Male Institute (BMI) is a cadre of scholars, practitioners, community members, and policymakers dedicated to improving the educational experiences and life chances of black males. Educational settings are considered to be critical spaces for developing informed action to address black male persistence in schooling, recognizing that the challenges that impact the academic success of black males are manifold, be they economic, social, legal, or health-related. See http://www.blackmaleinstitute.org.

**CENTER FOR GLOBAL EDUCATION**

The Center for Global Education promotes international education to foster cross-cultural awareness, cooperation, and understanding. The center collaborates with colleges, universities, and other organizations around the world to create new and enhance existing study abroad programs, integrate an international and intercultural perspective into the U.S. educational system, increase the ethnic diversity of participants in study abroad, and provide resources to support their participation. See http://globaled.us.
CENTER FOR IMPROVING CHILD CARE QUALITY

The Center for Improving Child Care Quality (CICCCQ) conducts high-quality, policy-relevant research, with focus on improving the early care and education environments of young children. Utilizing expertise in the areas of child development, professional development, child care quality, attachment, and observational and survey research methodology, CICCCQ conducts basic, applied, and policy-driven research at the local, state, and national levels. CICCCQ takes a collaborative approach to the evaluation process, building relationships with community partners to inform research, practice, and professional development. See http://legacy.gseis.ucla.edu/~ciccq/.

CENTER FOR INFORMATION AS EVIDENCE

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

CENTER FOR INTERNATIONAL AND DEVELOPMENT EDUCATION

The Center for International and Development Education (CIDE) is a research and action center whose mission is to enhance educational capacity, facilitate human and economic development, and promote cross-cultural exchanges related to international and development education. This is accomplished through a series of publications, research programs, practical initiatives, and networks with existing development and academic institutions. See http://www.cide.ucla.org.

CENTER FOR RESEARCH AND INNOVATION IN ELEMENTARY EDUCATION

The Center for Research and Innovation in Elementary Education (CONNECT) links nationally recognized researchers with teachers and administrators at UCLA Lab School and public schools in Southern California to investigate central issues in education. Programs examine children’s learning and development from preschool to sixth grade; investigate teaching diverse student populations; encourage exchange of ideas among scholars, practitioners, and policymakers concerned with child development and school reform; and disseminate effective educational approaches and research. See http://www.connect.gseis.ucla.edu.

CENTER FOR STUDY OF EVALUATION/NATIONAL CENTER FOR RESEARCH ON EVALUATION, STANDARDS, AND STUDENT TESTING

The Center for Study of Evaluation (CSE)/National Center for Research on Evaluation, Standards, and Student Testing (CRESST) is devoted to educational research, development, training, and dissemination. CSE/CRESST 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.cse.ucla.edu.

CENTER X

Center X provides a unique setting where researchers and practitioners collaborate to design and conduct programs that prepare and support K-12 education professionals committed to social justice, instructional excellence, the integration of research and practice, and caring in low-income urban schools. See http://centerx.gseis.ucla.edu.

CIVIL RIGHTS PROJECT/PROYECTO DERECHOS CIVILES

The Civil Rights Project/Proyecto Derechos Civiles (CRP) is a research center dedicated to creating a new generation of research in social sciences and law on the critical issues of civil rights and equal opportunity for racial and ethnic groups in the U.S. It has commissioned more than 400 studies, published 13 books, been cited in major Supreme Court decisions on affirmative action, and issued numerous reports from authors at universities and research centers across the country. See http://civilrightsproject.ucla.edu.

HIGHER EDUCATION RESEARCH INSTITUTE

The Higher Education Research Institute (HERI) conducts research, evaluation, information, policy studies, and research training in postsecondary education. HERI’s research program includes the outcomes of postsecondary education, leadership development, institutional transformation, faculty performance, federal and state policy, and educational equity, and houses the Cooperative Institutional Research Program (CIRP), the largest ongoing national study of college students in the U.S. See http://heri.ucla.edu/index.php.

INSTITUTE FOR DEMOCRACY, EDUCATION, AND ACCESS

The Institute for Democracy, Education, and Access (IDEA) seeks to understand and challenge pervasive racial and social class inequalities in education. In addition to conducting research and policy analysis, IDEA supports educators, public officials, advocates, community activists, and young people as they design, conduct, and use research to make high-quality public schools and successful college participation routine occurrences in all communities. IDEA also studies how research combines with strategic communications and public engagement to promote widespread participation in civic life. See http://www.idea.gseis.ucla.edu.

PAULO FREIRE INSTITUTE

The Paulo Freire Institute (PFI) seeks to gather scholars and critics of Freire’s pedagogy in permanent dialog to foster the advancement of new pedagogical theories and concrete interventions in the real world. PFI brings together research, teaching, and technology while concentrating on five major areas: studies of globalization and education, teacher education, a comparative perspective on Latin American education, the

SUDIKOFF FAMILY INSTITUTE FOR EDUCATION AND NEW MEDIA

The Sudikoff Family Institute for Education and New Media utilizes the popular press and other media to disseminate the work of GSE&IS scholars to policymakers, educators, and the general public. Sudikoff Fellows are selected each year from GSE&IS faculty members to enhance awareness of critical issues related to education and information studies by contributing to a variety of media that reach a lay audience, or serve the public interest in some manner. See http://gseis.ucla.edu/sudikoff/.

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. UC ACCORD leverages the research capacity of the UC system to influence policy and practice to produce more positive educational outcomes for low-income and underrepresented students. See http://ucaccord.ucla.edu.

HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Vijay K. Dhir, Dean

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http://www.engineer.ucla.edu

The UCLA Henry Samueli School of Engineering and Applied Science (HSSEAS), founded in 1945, is committed to creating a better future for Los Angeles, California, the nation, and the world. Over the years, UCLA Engineering has grown into one of the top engineering programs in the country. Though the school has changed in many ways, it has not wavered from its early vision of developing an engineering program with imagination and integrity. As part of a great public University, the school is committed to a core mission of teaching, research, and service.

UCLA Engineering supports dynamic programs in traditional and new areas of study and research, including bioengineering, embedded networked sensing systems, bio-nano-info technologies, wireless communications and computing, signal processing, sensor technologies, nanotechnology and nanomanufacturing, automated flight and autonomous systems, alternative energy systems, smart structures and materials, and protection of the environment. Partnerships across campus reflect the school's commitment to a wide range of interdisciplinary activities.

Students receive their education through lectures and gain hands-on experience through laboratories and participation in real-world applications. The undergraduate degree curriculum provides well-rounded exposure to the humanities, social sciences, life sciences, and the fine arts. It also includes a technical breadth requirement, designed for students to gain a working knowledge of a technical field outside their major. The school also recognizes that engineers have the ethical and social responsibility to create, protect, and manage technology. Students are committed to a high standard of achievement and contribute to the overall excellence in engineering at UCLA.

DEPARTMENTS AND PROGRAMS

The Henry Samueli School of Engineering and Applied Science has seven departments 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, in addition to an undergraduate minor in Environmental Engineering:

Aerospace Engineering (B.S., M.S., Ph.D.)
Bioengineering (B.S., 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., online M.S., 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 apply directly to HSSEAS by selecting one of the majors within the school or the undeclared engineering option. In the selection process many elements are considered, including grades, test scores, and academic preparation.

Applicants are accepted at either the freshman or junior level.

ADMISSION AS A FRESHMAN

Freshman applicants must satisfy the examination requirement described in the Undergraduate Study 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 must submit scores from an approved core test of mathematics, language arts, and writing. This requirement may be satisfied by taking either (1) the ACT Assessment plus Writing Tests or (2) the SAT Reasoning Test. Applicants to the school are strongly encouraged to also take the following SAT Subject Tests: Mathematics Level 2 and a laboratory science test (Biology E/M, Chemistry, or Physics) that is closely related to the intended major.

Applicants seeking admission to the school in freshman standing must also satisfy the following University A to G subject requirements:

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

b. English. Four years of college preparatory English that include frequent and regular writing, and reading of classic and modern literature, poetry, and drama. No more than one year of ESL-type courses can be used to meet this requirement

c. Mathematics. Three years of college preparatory mathematics that include the topics covered in elementary and advanced algebra and two- and three-dimensional geometry (four years are recommended, including trigonometry and calculus). Approved integrated mathematics courses taken in the seventh and eighth grades may be used to fulfill this requirement if the high school accepts them as equivalent to its own mathematics courses

d. Laboratory Science. Two years of laboratory science (three years are recommended) that provide fundamental knowledge in at least two of the three foundational subjects: biology, chemistry, and physics. Advanced laboratory science courses that have biology, chemistry, or physics as requisites and offer substantial new material may be used to fulfill this requirement. The last two years of an approved three-year integrated science program that provides rigorous coverage of at least two of the three foundational subjects may also be used to fulfill this requirement

e. Language Other than English. Two years of the same language, other than English (three to four years are recommended). Courses should emphasize speaking and understanding and include instruction in grammar, vocabulary, reading, composition, and culture. Courses in languages other than English taken in the seventh and eighth grades may be used to fulfill part of this requirement if the high school accepts them as equivalent to its own language courses

f. Visual and Performing Arts. One year-long approved arts course from a single visual and performing arts discipline: dance, drama/theater, music, or visual art

g. College Preparatory Electives. One year (two semesters), in addition to those required in a to f above, selected from the following areas: history, English, advanced mathematics, laboratory science, language other than English (a third year in the language used for the e requirement or two years of another language), social science, and visual and performing arts (nonintroductory-level courses)

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 3, 4, or 5. 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 2012 fulfills HSSEAS requirements as indicated on the school AP chart at http://www.admissions.ucla.edu/Prospect/APCreditEN.htm. 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, computer programming, English composition, mathematics, physics, and the recommended engineering courses before transferring to UCLA. Transfer students who have completed the recommended lower division program in engineering at California community colleges normally 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 Computer Science and Engineering majors and the electrical engineering and computer engineering options of the Electrical Engineering major; 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. Computer programming courses in C++, C, or Java (C++ is strongly recommended); applicants to majors in Computer Science, Computer Science and Engineering, and Electrical Engineering must take a programming course equivalent to UCLA’s Computer Science 31

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 UC-transferable English composition course.

All lower division requirements should be completed by the end of the spring term prior to anticipated enrollment at UCLA.

Transfer Credit

Students transferring to the school from institutions that offer instruction in engineering subjects in the first two years, particularly California community colleges, are given credit for certain engineering core requirements.

Many sophomore courses in circuit analysis, strength of materials, and properties of materials may satisfy Electrical Engineering 10 or 100, Civil and Environmental Engineering 108, and Materials Science and Engineering 104 requirements respectively. Check with the Office of Academic and Student Affairs.

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 undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing 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 seven requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, technical breadth, ethics, and general education.

UNIT REQUIREMENT

The minimum units allowed for HSSEAS students is between 185 and 190, 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.

WRITING REQUIREMENT

Students must complete the University’s Entry-Level Writing or English as a Second Language (ESL)
Students admitted to the school are required to complete a two-term writing requirement—Writing I and engineering writing. Both courses must be taken for letter grades, and students must receive grades of C or better (C– grades are not acceptable).

**Writing I.** The Writing I requirement must be satisfied by completing English Composition 3 or 3H with a grade of C or better (C– or a Passed grade is not acceptable). The course may be applied toward the engineering writing requirement.

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 higher on the SAT Reasoning Test Writing Section 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).

**Engineering Writing.** The engineering writing requirement is satisfied by selecting one approved engineering writing (EW) course from the HSSEAS writing course list or by selecting one approved Writing II (W) course. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable). Writing courses are listed in the Schedule of Classes at [http://www.registrar.ucla.edu/soc/writing.htm](http://www.registrar.ucla.edu/soc/writing.htm).

Writing courses also approved for general education credit may be applied toward the relevant general education foundational area.

**TECHNICAL BREADTH REQUIREMENT**

The technical breadth requirement consists of a set of three courses providing sufficient breadth outside the student’s core program. A list of HSSEAS Faculty Executive Committee-approved technical breadth requirement courses is available in the Office of Academic and Student Affairs. None of the technical breadth requirement courses selected by students can be used to satisfy other major course requirements.

**ETHICS REQUIREMENT**

The ethics and professionalism requirement is satisfied by completing one course from Engineering 183EW or 185EW with a grade of C or better (C– or a Passed grade is not acceptable). The course may be applied toward the engineering writing requirement.

**GENERAL EDUCATION REQUIREMENTS**

General education (GE) is more than a checklist of required courses. It is a program of study that (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.

Students may take one GE 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. For details on P/NP grading, see Grading in the Academic Policies section or consult the Office of Academic and Student Affairs.

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

**Requirements for Students Who Entered Fall Quarter 2005 and Thereafter**

**FOUNDATIONS OF KNOWLEDGE**

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

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

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

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

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**Henry Samueli School of Engineering and Applied Science**

**General Education Requirements**

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>2 Courses</th>
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<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td></td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
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</tbody>
</table>

Each course must be from a different subgroup.

Total = 10 units minimum

<table>
<thead>
<tr>
<th>Foundations of Society and Culture</th>
<th>1 Course</th>
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</thead>
<tbody>
<tr>
<td>Historical Analysis</td>
<td></td>
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<tr>
<td>Social Analysis</td>
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</table>

Total = 10 units minimum

<table>
<thead>
<tr>
<th>Foundations of Scientific Inquiry</th>
<th>1 Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Sciences</td>
<td></td>
</tr>
</tbody>
</table>

Total = 4 units minimum

**Total GE** . . . . . . . . . . . 5 Courses/24 Units Minimum

Engineering writing requirement courses also approved for GE credit may be applied toward the relevant GE foundational areas.
Foundations of the Arts and Humanities. Two 5-unit courses selected from two different subgroups:
- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

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

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

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

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

Life Sciences

This requirement is automatically satisfied for Bioengineering majors, Chemical Engineering majors, and the biomedical engineering option of the Electrical Engineering major. The requirement may be satisfied for Civil Engineering majors if students select an approved major field elective that is also a course approved under Foundations of Scientific Inquiry.

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

Foundations 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/.

Requirements for Students Who Entered Prior to Fall Quarter 2005

For the approved list of courses, see http://www.seas.ucla.edu/undergraduates/ge-home-page.

DEPARTMENT REQUIREMENTS

Henry Samueli School of Engineering and Applied 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). 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

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. Each course in the major department must be taken for a letter grade. See the Curricula and Courses section of this catalog for details on each major.

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.

Undergraduate students in the school 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 undergraduate students enrolled in the school:

Advanced Placement Tests. Some portions of Advanced Placement (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.admissions.ucla.edu/Prospect/APCreditEN.htm.

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

Community College Unit Limit. 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.

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.

MINORS AND DOUBLE MAJORS

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

While HSSEAS considers minor or double major requests, specializations are not considered at this time. Students interested in a minor or double major should meet with their counselor in 6426 Boelter Hall.

COUNSELING SERVICES

New undergraduate students must have their course of study approved by an academic counselor. After the first term, curricular and career advising is accomplished on a formal basis. Students are assigned a faculty adviser in their particular specialization in their freshman year.

In addition, undergraduate students are assigned, by major, to an academic counselor in the Office of Academic and Student Affairs who provides them with advice regarding general requirements for 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 transfer students may also select the curriculum in the catalog in effect at the time they began their community college work in an engineering program, providing attendance has been continuous since that time.

Students admitted to UCLA in Fall Quarter 2012 and thereafter use UCLA's Degree Audit System which can be accessed via URSA OnLine at http://www.ursa.ucla.edu. Students should contact their academic counselor in 6426 Boelter Hall with any questions.

Undergraduate students following a catalog year prior to 2005-06 and beginning their upper division major field coursework are advised to meet with their academic counselor in 6426 Boelter Hall to review their degree requirements.

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 a cumulative grade-point average at graduation which places them in the top five percent of the school (GPA of 3.869 or better) for summa cum laude, next five percent (GPA of 3.747 or better) for magna cum laude, and the next 10 percent (GPA of 3.610 or better) for cum laude. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility.

Based on grades achieved in upper division courses, engineering students must have a 3.869 grade-point average to be named to the Dean's Honors List.
average for summa cum laude, a 3.747 for magna cum laude, and a 3.610 for cum laude. For all designations of honors, students must have a minimum 3.25 GPA 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. See http://tbp.seas.ucla.edu.

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

EXTRACURRICAL 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 Faculty Executive Committee.

WOMEN IN ENGINEERING

Among HSSEAS students, women make up approximately 21 percent of the undergraduate and 20 percent of the graduate enrollment. Today's opportunities for women in engineering are excellent, as both employers and educators try to change the image of engineering as a "males only" field. Women engineers are in great demand in all fields of engineering.

The Society of Women Engineers (SWE), recognizing that women in engineering are still a minority, has established a UCLA student chapter that sponsors field trips and engineering-related speakers (often professional women) to introduce the various options available to women engineers. The UCLA chapter of SWE, in conjunction with other Los Angeles schools, also publishes an annual résumé book to aid women students in finding jobs and presents a career day for 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 and Technology 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 and engineering programs, (310) 825-3344 for short course programs, (310) 206-1548 for technical management classes, and (310) 825-3858 for the Technical Management Program. See https://www.uclaextension.edu/eistm/t/default.aspx.

GRADUATE ADMISSION

In addition to meeting the requirements of the Graduate Division, applicants to the HSSEAS graduate programs are required to take the General Test of the Graduate Record Examination (GRE). Specific information about the GRE may be obtained from the department of interest.

Students entering the Engineer/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.seas.oasa.ucla.edu/admissions/graduate-admissions/. 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

MASTER OF SCIENCE DEGREES

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

Individual departments 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 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 SCIENCE IN ENGINEERING ONLINE DEGREE**

The primary purpose of the Master of Science in Engineering online degree program is to enable employed engineers and computer scientists to augment their technical education beyond the Bachelor of Science degree and to enhance their value to the technical organizations in which they are employed. For further information, see http://msengrol.seas.ucla.edu.

**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) 825-2514.

**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.

**PH.D. 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.

**Bioengineering Department**. Biomaterials, tissue engineering, and biomechanics; biomedical instrumentation; biomedical signal and image processing; biosystem science and engineering; medical imaging informatics; molecular and cellular bioengineering; bioengineering

**Chemical and Biomolecular Engineering Department**. Chemical engineering

**Civil and Environmental Engineering Department**. Civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water
The Anderson School of Management prepares students to become first-rate managers with specialized skills and a broad understanding of the general economic, business, and managerial environment.

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

Judy D. Olian, Dean

UCLA
F407 Mullin Management Commons
Box 951481
Los Angeles, CA 90095-1481

(310) 825-7982
fax: (310) 206-2073
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 new knowledge.

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, a Master of Financial Engineering (M.F.E.), as well as an 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. The school also offers part-time dual Executive M.B.A. degrees with the National University of Singapore (NUS) Business School and with the Universidad Adolfo Ibanez (UAI) in Santiago, Chile, that prepare participants for top positions in organizations around the world. 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 AND PROGRAMS

The school offers the following degrees, in addition to an undergraduate minor in Accounting:

- Master of Business Administration (M.B.A.)
- Master of Financial Engineering (M.F.E.)
- Master of Science (M.S.)
- Doctor of Philosophy (Ph.D.)
Concurrent Degree Programs

The school offers 10 concurrent degree programs:
Management M.B.A./Computer Science M.S.
Management M.B.A./Dentistry D.D.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./Public Policy M.P.P.

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 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.anderson.ucla.edu/x24218.xml.

RESEARCH CENTERS

Six interdisciplinary research centers provide valuable resources that support school programs: Center for Global Management/Center for International Business Education and Research, Center for Management of Enterprise in Media, Entertainment, and Sports, Harold and Pauline Price Center for Entrepreneurial Studies, Laurence D. and Lori W. Fink Center for Finance and Investments, Richard S. Ziman Center for Real Estate, and the UCLA Anderson Forecast. See http://www.anderson.ucla.edu/x24196.xml for further details.

OUTREACH PROGRAMS

A wide range of outreach programs, such as the Applied Management Research Program, Global Access Program, Johnson and Johnson Programs, Management Development Institute, and Riordan Programs, offer many teaching, research, and service resources to UCLA, the city, and beyond. See http://www.anderson.ucla.edu/x24216.xml.

JONATHAN AND KARIN FIELDING SCHOOL OF PUBLIC HEALTH

Thomas H. Rice, Interim Dean

UCLA
16-035 Center for the Health Sciences
Box 951772
Los Angeles, CA 90095-1772

(310) 825-5524
e-mail: info@ph.ucla.edu
http://ph.ucla.edu

This is an exciting time to study public health. The field is experiencing an unprecedented level of attention as the nation continues to better prepare itself for a variety of threats to its health and security. As a result, many new and exciting opportunities exist for students, faculty members, and graduates.

The field of public health strives to create healthier communities. Where medicine treats the individual, public health looks to the larger community. Those working in public health focus on efforts to assess the health of people and their environments and develop policies and programs to protect people and help them lead healthier lives.

To achieve these goals, public health crosses many of the traditional academic disciplinary boundaries, drawing from medicine, law, public policy, economics, and biology to name a few. Making water safe to drink and air safe to breathe, controlling toxic waste, halting the spread of infectious disease, promoting the advantages of healthy lifestyles, and minimizing violence in our communities are all examples of public health in action. Increasingly public health is called on to help determine which clinical approaches to an individual health problem are best (outcomes research), and to assess and identify disparities in access to healthcare, quality of healthcare, and health status.

The UCLA Jonathan and Karin Fielding School of Public Health is among the top public health schools in the country and offers superior public health training and real-world experience. The school’s classrooms and laboratories are under the same roof as the UCLA medical, dental, and nursing schools and just steps away from its science facilities and schools of engineering, law, management, and public affairs.

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

Students can look forward to working with acclaimed public health experts and innovators. Among its 200 faculty members are 15 members of the prestigious Institute of Medicine, three past presidents of the American Public Health Association, and two past and current presidents of the International Epidemiological Association.

The school’s 700 students are among the most talented and promising in the nation and are a culturally diverse group—one of the most diverse of all schools of public health—representing more than 35 countries and nearly every region of the U.S. Graduates continue to make an impressive impact on the field and can be found at the forefront of all major public health efforts.

DEPARTMENTS

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

Biostatistics (M.S., Ph.D.)
Community Health Sciences (M.S., Ph.D.)
Environmental Health Sciences (M.S., Ph.D.)
Epidemiology (M.S., Ph.D.)
Health Policy and Management (M.S., Ph.D.)
Molecular Toxicology (Ph.D.)
Preventive Medicine and Public Health (M.S.)
Public Health (M.P.H., Dr.P.H.)

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 two articulated degree programs:

Public Health M.P.H./Latin American Studies M.A.
Public Health M.P.H./Medicine M.D.

Concurrent Degree Programs

The school offers eight concurrent degree programs:

Public Health M.P.H./African Studies M.A.
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.
Public Health M.P.H./Public Policy M.P.P.
Public Health M.P.H./Social Welfare M.S.W.

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://grad.ucla.edu/gasaa/admissions/admisinfo.html.

Applicants must also submit the application to the centralized Schools of Public Health Application Service (SOPHAS) at http://www.sophas.org. For additional admission requirements, see http://ph.ucla.edu/content/student-affairs/prospective-students/application-checklist/.

DEGREE REQUIREMENTS

Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

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 Fielding School of Public Health.

CENTER FOR CANCER PREVENTION AND CONTROL RESEARCH

The Center for Cancer Prevention and Control Research (http://ph.ucla.edu/content/center-cancer-prevention-and-control-research) is a joint program of the Fielding School of Public Health and the Geffen School of Medicine’s Jonsson Comprehensive Cancer Center. Since its inception in 1976, the center has been recognized throughout the Los Angeles community, nationally, and internationally. It conducts rigorous peer-reviewed research in two major program areas—the Healthy and At-Risk Populations Program (http://www.cancer.ucla.edu/Index.aspx?page=1194) and the Patients and Survivors Program (http://www.cancer.ucla.edu/Index.aspx?page=1195).

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, as well as risk counseling and genetic testing of high-risk populations. The Patients and Survivors Program has as its major goal the reduction in avoidable morbidity and mortality among adult and pediatric patients with cancer and long-term survivors of cancer.

CENTER FOR ENVIRONMENTAL GENOMICS

The Center for Environmental Genomics was established in May 2003 in partnership with the Jonsson Comprehensive Cancer Center. The goal of the center is to bring together experts from a variety of fields, including cancer, environmental health, epidemiology, biostatistics, human genetics, pathology, and pharmacology, to investigate the molecular mechanisms by which environmental agents such as air pollutants and radiation interact with genetic predisposing factors to cause disease. A better understanding of these processes paves the way not only for targeted drug therapies, but also for targeted public health efforts to reduce envi-
environmental exposures in high-risk populations. Environmental genomics helps prevent diseases rather than waiting to cure them once they have occurred.

**CENTER FOR GLOBAL AND IMMIGRANT HEALTH**

The UCLA Center for Global and Immigrant Health was established in 2008 and includes faculty members from all the departments in the School of Public Health, as well as the Schools of Medicine, Dentistry, and Nursing and the California Center for Population Research, all of whom have research or teaching interests in global and/or immigrant health. Participating faculty members have active research collaborations in more than 50 countries throughout the world, and several work both with immigrant communities in California and in the countries of origin of these communities. The center offers a regular seminar series and a Certificate in Global Health available to students in any of UCLA’s degree-granting graduate and professional programs. See http://ph.ucla.edu/content/ academics/degrees/global-health/ucla-center-global-and-immigrant-health.

**CENTER FOR HEALTH POLICY RESEARCH**

The UCLA Center for Health Policy Research was established in 1994 to apply the expertise of UCLA faculty members and researchers to meet national, state, and local community needs for health policy-related research and information and to accomplish three missions: (1) to conduct research on national, state, and local health policy issues, (2) to provide public service to policymakers and community leaders, and (3) to offer educational opportunities for graduate students and postdoctoral fellows.

Sponsored by the Fielding School of Public Health and the Luskin School of Public Affairs, the center provides a collaborative health policy research environment for the leading professional schools and academic departments of UCLA. One major project is the California Health Interview Survey (CHIS), one of the largest health surveys in the nation. The center also sponsors major public service programs supported by extramural grants. See http://www.healthpolicy.ucla.edu.

**CENTER FOR HEALTHIER CHILDREN, FAMILIES, AND COMMUNITIES**

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 Affairs 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://www.healthychild.ucla.edu.

**CENTER FOR HUMAN NUTRITION**

Established in 1996, the Center for Human Nutrition is a joint endeavor of the Fielding School of Public Health and the Geffen School of Medicine. Participating faculty members have their academic appointments in either or both schools. The center brings together faculty members, postdoctoral research fellows, graduate students, and medical students to focus on the roles of nutrition and food in human health, disease and is closely affiliated with the UCLA Clinical Nutrition Research Unit, that 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. See http://cellinteractive.com/ucla/.

**CENTER FOR METABOLIC DISEASE PREVENTION**

The Center for Metabolic Disease Prevention brings the best science to bear on the challenge of controlling the global epidemic of metabolic diseases and provides leadership in metabolic disease prevention through interdisciplinary research, improving patient care, and creating educational initiatives for students, health professionals, and the public. This pioneering center is one of the first in the nation to integrate laboratory-based and population-based sciences in studying mechanisms and strategies for metabolic diseases prevention. In doing so, the center unifies the many strengths and expertise of UCLA’s departments and schools to investigate all facets of metabolic diseases and provides comprehensive multidisciplinary education and research training opportunities for students ranging from sick molecules to sick populations. For more information about the center’s Burroughs Wellcome Fund Interschool Training Program in Metabolic Diseases and other programs, see http://www.cmdp.ucla.edu and http://nutrigen.ph.ucla.edu.

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The Jonathan and Karin Fielding School of Public Health is among the top public health schools in the country, offering superior public health training and real-world experience.
**Center for Occupational and Environmental Health**

The California State Legislature mandated that the Center for Occupational and Environmental Health (COEH) be formed in 1978, when a group of chemical workers became sterile from exposure to the pesticide DBCP, a known carcinogen and reproductive toxin. With branches in 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 Fielding School of Public Health include environmental chemistry, occupational/environmental epidemiology, occupational/environmental medicine, occupational ergonomics, occupational hygiene, toxicology, gene-environment interactions, psychosocial factors in the work environment, occupational health education, and pollution prevention. 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 is one of 15 Academic Centers for Public Health Preparedness funded 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.cphd.ucla.edu.

**Southern California NIOSH Education and Research Center**

The Southern California NIOSH Education and Research Center (ERC) is one of 17 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 Fielding School of Public Health and the Institute of the Environment and Sustainability, the center includes faculty members from throughout UCLA, as well as researchers from the University of Southern California, University of California campuses at Riverside and Irvine, California Institute of Technology, 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.

**UCLA Kaiser Permanente Center for Health Equity**

Academic studies and current events have converged to highlight the magnitude of potentially preventable health disparities among various population groups, and the urgency of addressing these disparities. The UCLA Kaiser Permanente Center for Health Equity identifies, investigates, and addresses these differences in health status and disease burden. A key feature of the center is its heavy focus on community-based intervention research to mitigate observed disparities. The center aims to advance understanding of health disparities across the lifespan and to foster multidisciplinary research to improve the health of underserved communities. With focus on Los Angeles County, the center facilitates community and academic partnerships in research, trains new investigators in health disparities research, and assists community partners in implementing effective programs and advocating for effective policies to reduce disparities. The center also endeavors to erode the barriers preventing more effec-
tive collaboration with local health departments and other key community partners engaged in the practice of public health. It is a collaborative center without walls that includes associates from academia, government, foundations, and private/nonprofit organizations. See http://healthequity.ucla.edu.

UCLA/RAND PREVENTION RESEARCH CENTER

The UCLA/RAND Prevention Research Center 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 Fielding 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 members 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/centers/adolescent.html and http://www.ph.ucla.edu/prc/.

MEYER AND RENEE LUSKIN SCHOOL OF PUBLIC AFFAIRS

Franklin D. Gilliam, Jr., Dean

UCLA
3250 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656
(310) 206-7568
fax: (310) 206-5773
http://publicaffairs.ucla.edu

Founded in 1994, the UCLA Meyer and Renee Luskin School of Public Affairs incorporates best practices in scholarship, research, and teaching in the fields of policymaking, social work, and urban and regional planning. The unique intersection of these disciplines within one school allows for academic cross-collaboration and a graduate education that values perspectives at both the macroorganizational and microorganizational levels. Graduates of the master’s and doctoral degree programs are well prepared to take leadership roles and effect change as practitioners, researchers, and policymakers in the public, private, and nongovernmental sectors. Faculty members are actively engaged in research that addresses pressing national and regional issues, including immigration, drug policy, prison reform, healthcare financing, transportation and the environment, national security, economic development, and an aging U.S. and world population.

DEPARTMENTS

The school combines three academic departments—Public Policy, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and nongovernmental service, conducts research on significant regional, national, and international issues with a strong interdisciplinary and cross-cultural focus, and acts as a convener and catalyst for public dialogue, engaging people locally, nationally, and internationally.

DEGREES AND PROGRAMS

The school offers the following degrees, in addition to undergraduate minors in Gerontology, Public Affairs, and Urban and Regional Studies:

Public Policy (M.P.P.)
Social Welfare (M.S.W., Ph.D.)
Urban and Regional Planning (M.U.R.P.)
Urban Planning (Ph.D.)

Concurrent Degree Programs

The school offers 13 concurrent degree programs:

Public Policy M.P.P./Law J.D.
Public Policy M.P.P./Management M.B.A.
Public Policy M.P.P./Medicine M.D.
Public Policy M.P.P./Public Health M.P.H.
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.
Social Welfare M.S.W./Public Health M.P.H.
Urban Planning M.U.R.P./Architecture M.Arch. I
Urban Planning M.U.R.P./Latin American Studies M.A.
Urban Planning M.U.R.P./Public Health M.P.H.
Urban Planning M.U.R.P./Law J.D.
Urban Planning M.U.R.P./Management M.B.A.
Urban Planning M.U.R.P./Public Health M.P.H.

Obtain brochures about the school’s programs from the department offices, 3357 Public Affairs Building, or see http://publicaffairs.ucla.edu.

The school also offers a wide array of undergraduate courses in public policy, 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
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://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

**RESEARCH CENTERS**

The school houses a number of research centers where faculty members 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 dialogue about the current and future role of nonprofit organizations, philanthropy, and civil society. See http://civilsociety.ucla.edu.

**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.latinoecomicsecurity.org/cpra.html.

**INSTITUTE OF TRANSPORTATION STUDIES**

The UCLA Institute of Transportation Studies (ITS), one of the leading transportation policy research centers in the U.S., was created in 1993 to conduct research and provide professional education on the social, economic, environmental, and cultural aspects of transportation policy. Each year ITS faculty members, students, and research staff collaborate on a wide array of transportation policy and planning studies, ranging from an analysis of the travel trends and transportation needs of immigrants and low-income workers to the testing and evaluation of innovative fare programs to increase public transit use. See http://www.its.ucla.edu.

**RALPH AND GOLDY LEWIS CENTER**

The Lewis Center was established in 1988 with a $5-million endowment from Ralph and Goldy Lewis to promote the multidisciplinary study, understanding, and solution of regional policy issues in California. Research projects include topics such as welfare reform, immigration, the environment, health insurance, labor and employment, and transportation. See http://lewis.ucla.edu.

**LUSKIN CENTER FOR INNOVATION**

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

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

**SCHOOL OF THE ARTS AND ARCHITECTURE**

Christopher Waterman, Dean

UCLA
8260 Broad Art Center
Box 951427
Los Angeles, CA 90095-1427
(310) 206-6465
fax: (310) 206-8504
http://www.arts.ucla.edu

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 (Architecture and Urban Design, Art, Design | Media Arts, Ethnomusicology, Music, and World Arts and Cultures/Dance) provide students with unparalleled opportunities to learn from faculty...
members who rank among the most innovative artists, designers, musicians, choreographers, architects, and arts scholars of our time. Combining opportunities for the hands-on study of creative practice with the academic foundation of the liberal arts, the school offers students the chance to develop an integrated and encompassing understanding of human creativity, the arts, and architecture. The mission is to educate, empower, and inspire the next generation of citizens to serve as cultural and artistic 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 Center for Art of Performance at UCLA, one of the largest and most diverse performing arts presenters in the nation, and two world-class museums—the UCLA Hammer Museum which focuses on contemporary and emerging artists and the Fowler Museum at UCLA which focuses on the traditional and contemporary arts of Africa, the Americas, Asia, and Oceania.

The school also includes six interdisciplinary research centers—the Art | Global Health Center, Art | Sci Center, CityLab, Experiential Technologies Center, and Grunwald Center for the Graphic Arts—and the renowned Murphy Sculpture Garden. All of these programs offer students the opportunity to broaden and deepen their experience of the arts and architecture while at UCLA.

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, including a concentration in jazz studies, and the Department of Music offers concentrations in composition, music education, and performance. The Department of World Arts and Cultures/Dance 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.

Information regarding academic programs is available from the Office of Enrollment Management and Outreach, 8260 Broad Art Center, UCLA, Box 951427, Los Angeles, CA 90095-1427, http://www.arts.ucla.edu, (310) 825-8381.

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, in addition to undergraduate interdisciplinary minors in Music Industry and in Visual and Performing Arts Education:

Architectural Studies (B.A.)
Architecture (M.Arch. I, M.Arch. II, M.A., Ph.D.)
Art (B.A., M.F.A.)
Culture and Performance (M.A., Ph.D.)
Dance (B.A., M.F.A.)
Design | Media Arts (B.A., M.F.A.)
Ethnomusicology (B.A., M.A., C.Phil., Ph.D.)
Individual Field (B.A.)
World Arts and Cultures (B.A.)

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. Information regarding departmental requirements is available on each department website; see http://www.arts.ucla.edu (click on Departments). The annual deadline date for applications is November 30 for admission in the following Fall Quarter. After the UC application has been filed, applicants must submit supplemental application material and should consult the individual department website for details.

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 undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing 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

Structure of a Degree

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

School Requirements
1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   Writing I
   Writing II
5. Quantitative Reasoning
6. Foreign Language
7. Upper Division Nonmajor Courses
8. Diversity
9. General Education
   Foundations of Arts and Humanities
   Foundations of Society and Culture
   Foundations of Scientific Inquiry

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

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

School of the Arts and Architecture students enrolled in English as a Second Language 33A, 33B, 33C, 35 must take each course for a letter grade.

SCHOOL REQUIREMENTS

The School of the Arts and Architecture has nine requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, quantitative reasoning, foreign language, upper division nonmajor courses, diversity, and general education.

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 division courses (numbered 100 through 199). Credit for upper division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term and a maximum of 32 units total for a letter grade. Each major may have limitations on the number of upper division tutorials and/or units that may be applied toward degree requirements.

SCHOLARSHIP REQUIREMENT

A 2.0 (C) average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) 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 the Arts and Architecture. Of the last 45 units completed for the bachelor's degree, 35 must be earned in residence in the School of the Arts and Architecture. 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.

WRITING REQUIREMENT

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

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. The courses must be taken for letter grades, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section 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 must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Services Office. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

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

QUANTITATIVE REASONING REQUIREMENT

In the School of the Arts and Architecture, students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a letter grade of C or better or Passed (C– or a Not Passed grade is not acceptable).
The quantitative reasoning requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or higher or an SAT Subject Test in Mathematics score of 550 or higher. Approved courses include Biostatistics 100A, 100B, Mathematics 2 (or any higher numbered course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A, 103B, 103C, 105A, 105B, 105C, 189, 189HC, 195, 197, 199), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Statistics 10, 11, 12, 13, 14.

**FOREIGN LANGUAGE REQUIREMENT**

Students may meet the foreign language requirement by (1) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin, (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. The foreign language requirement must be completed within the first six terms of enrollment.

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

**UPPER DIVISION NONMAJOR REQUIREMENT**

Students are required to complete a minimum of 12 units of upper division (100-level) nonmajor courses. Graduate (200-level) courses may not be applied toward this requirement.

**DIVERSITY REQUIREMENT**

The diversity requirement is predicated on the notion that students in the arts must be trained to understand the local, national, and global realities in which they make, understand, and interpret art. Those realities include the multicultural, transnational, and global nature of contemporary society. The requirement may be satisfied by taking courses in any of three parts of the students’ overall program: (1) general education courses, (2) courses in the major, or (3) upper division nonmajor elective courses. As such, students are not required to complete an additional course to satisfy the diversity requirement. Courses satisfying this requirement consider intergroup dynamics along with such social dimensions as race, ethnicity, gender, socioeconomic background, religion, sexual orientation, age, and disability and are relevant to the understanding of these dynamics in contemporary society and culture in the U.S. and around the world.

**GENERAL EDUCATION REQUIREMENTS**

General education (GE) is more than a checklist of required courses. It is a program of study that (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.

**FOUNDATIONS OF KNOWLEDGE**

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

Eight courses (38 units minimum) are required. A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

Students who complete a yearlong GE Cluster series fulfill the Writing II requirement and complete nearly a third of their general education requirements. Students who do not complete the yearlong GE Cluster series must meet with a counselor in the Student Services Office to determine applicable GE credit.

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

**School of the Arts and Architecture**

**General Education Requirements**

<table>
<thead>
<tr>
<th>Area</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
<td></td>
</tr>
<tr>
<td>Literary and Cultural Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 Course</td>
</tr>
<tr>
<td>Total</td>
<td>= 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Society and Culture</strong></td>
<td></td>
</tr>
<tr>
<td>Historical Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Social Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Third course from either subgroup</td>
<td>1 Course</td>
</tr>
<tr>
<td>Total</td>
<td>= 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
<td></td>
</tr>
<tr>
<td>Life Sciences/Physical Sciences</td>
<td>2 Courses</td>
</tr>
<tr>
<td>Two courses from either subgroup</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>= 8 units minimum</td>
</tr>
<tr>
<td>Total GE</td>
<td>8 Courses/38 Units Minimum</td>
</tr>
</tbody>
</table>

A Writing II course also approved for general education may be applied toward the relevant general education foundational area.
Literary and Cultural Analysis
Philosophical and Linguistic Analysis
Visual and Performance Arts Analysis and Practice

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

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

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

**Foundations of Scientific Inquiry.** Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments:
- Life Sciences
- Physical Sciences

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 important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult an academic counselor or see http://www.registrar.ucla.edu/ge/.

**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, 2200 Broad Art Center, 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 the Arts and Architecture GE requirements.

**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 requirements; see the Curricula and Courses section of this catalog.

**The Major**

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

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. Each course in the major department must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

Any department offering a major 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, 2200 Broad Art Center, (310) 206-3564.

Minors and Double Majors. Students may petition to be reviewed for a minor and/or double major on an individual basis. It is strongly recommended that students pursuing a minor or double major enroll in 15 to 20 units per term. Contact the Student Services Office for an outline of criteria required.

POLICIES AND REGULATIONS

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

STUDENT RESPONSIBILITY

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

STUDY LIST

Each term the student Study List must include from 12 to 20 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 20 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a B average in the preceding term with all courses passed. Consult the Student Services Office no later than the end of the second week of instruction.

MINIMUM PROGRESS

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

CHANGING A MAJOR

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

CONCURRENT ENROLLMENT

Enrollment at a non-UC institution or at UCLA Extension while enrolled at UCLA is not permitted.

CREDIT LIMITATIONS

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

Advanced Placement Tests. Credit earned through the College Board Advanced Placement (AP) Tests may be applied toward certain University/school requirements. Consult a counselor in the Student Services Office to determine applicable credit. Portions of AP Test credit may be evaluated by corresponding UCLA course numbers (e.g., French 4). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the AP chart at http://www.admissions.ucla.edu/Prospect/APCreditAA.htm for UCLA course equivalents and credit allowed for GE requirements.

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 school and departmental counselors. For counseling information, contact the Student Services Office, School of the Arts and Architecture, 2200 Broad Art Center, (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 and the requirements for each level are summa cum laude, an overall average of 3.897; magna cum laude, 3.849; cum laude, 3.786. 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 2200 Broad Art Center 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 departments and the dean of the Graduate Division.

ADMISSION

In addition to requiring that applicants hold a bachelor's degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. In general, samples of creative work (auditions, portfolios, computer programs, etc.) are required. Detailed information is available on individual department websites and in Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

SCHOOL OF DENTISTRY

No-Hee Park, Dean

UCLA
53-038 Dentistry
Box 951668
Los Angeles, CA 90095-1668
(310) 206-6063
fax: (310) 794-7734
http://www.dentistry.ucla.edu

The UCLA School of Dentistry has a national and international reputation for its teaching, research activities, and public service that prepare dental students for professional careers dedicated to patient treatment, leadership, and service. The curriculum prepares students for changes in treatment modalities and healthcare delivery systems. From the moment training begins, students actively participate in preventive and clinical dental care and soon make valuable contributions to the clinical health team. Clinical instruction emphasizes the comprehensive care of patients. Students interact with their colleagues, faculty members, and dental auxiliary personnel in much the same way as they later will interact in a private or group practice. School of Dentistry students may undertake programs designed to meet their special interests; mandatory selectives encourage advanced training in an area of particular interest and service learning. In addition to basic and applied research programs within the school, students participate in community service programs such as the Wilson-Jennings-Bloomfield UCLA Venice Dental Center. The graduate programs and resident specialty programs foster new lines of research that lead to better treatment options. An active continuing education program directed by UCLA faculty members 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. One concurrent degree program (Dentistry D.D.S./Management M.B.A.) is also offered. 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

PREDENTAL CURRICULUM

For details on the three-year preprofessional curriculum, see http://career.ucla.edu/Students/GradProfSchCounseling/Overview.
D.D.S. DEGREE

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.dentistry.ucla.edu/admissions 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 six-year oral and maxillofacial surgery residency training program; three-year prosthodontics, periodontics, and orthodontics programs; two-year programs in the specialties of endodontics and orofacial pain and dysfunction; and 26-month programs in dental anesthesiology and pediatric dentistry.

Information on the resident programs can be obtained by writing directly to Residency Programs, School of Dentistry, A0-111 Dentistry, UCLA, Box 951762, Los Angeles, CA 90095-1762.

SCHOOL OF LAW

Rachel F. Moran, 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 Business Law and Policy, Critical Race Studies, Entertainment, Media, and Intellectual Property Law, Law and Philosophy, and Public Interest Law and Policy. Situated at a major gateway to the Pacific Rim, UCLA is a center of international programs; 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 international justice. 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. Approximately 400 interviewers from across the country visit the campus annually, including law firms, corporations, government agencies, and public interest organizations. UCLA graduates (more than 13,000) 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.)
- Master of Laws (LL.M.)
- Doctor of Juridical Science (S.J.D.)

**Concurrent Degree Programs**

The school offers nine 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./Philosophy Ph.D.
- Law J.D./Public Health M.P.H.
- Law J.D./Public Policy M.P.P.
- Law J.D./Social Welfare M.S.W.

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 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.

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

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 at http://www.law.ucla.edu.

**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, at least 65 of which must be earned in regularly scheduled law class sessions. 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 that 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 units and may not take more than 16 units each semester. The second- and third-year curriculum is elective, except for a required course in professional responsibility and a substantial analytical writing requirement. In addition to the courses in the regular law school curriculum, students may take two courses for credit in other disciplines within 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 that 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 and substantial analytical writing requirements that are requisites for graduation.

Master of Laws Degree
The School of Law offers a Master of Laws (LL.M.) degree program for international and domestic law school graduates who wish to pursue a year of graduate legal education. The program allows students to specialize their studies in fields such as entertainment law, international and comparative law, and four separate business law subjects, or to design their own specialization in a field of their choice. For further information, see http://www.law.ucla.edu/llm/.

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 LL.M. degree). For further information, see http://www.law.ucla.edu/sjd/.

Academic Specializations
Business Law and Policy Specialization
The Business Law and Policy specialization is designed for students who wish to focus their schooling in a particular area of business law and ultimately earn a certificate of completion with their J.D. degree. Students may choose from five tracks: business law; bankruptcy; mergers and acquisitions; securities regulation; and taxation. Approximately 70 courses and seminars are offered in the specialization. The five tracks are designed to provide additional guidance to students in course selection, as well as highlight the specialization’s curricular strengths. Business law materials are integrated to varying degrees in the law school’s first-year curriculum, typically in property, contracts, and torts.

Law and Philosophy Specialization
The Law and Philosophy specialization is designed for students who want to supplement their legal studies by exploring more theoretical issues concerning the philosophical foundations of law. It is invaluable to students, especially those interested in attending graduate programs or exploring a career in academia. The specialization exposes students to material on the nature of law and legal systems, legal methodologies, and the theoretical underpinnings and justifications of particular doctrinal areas such as constitutional law, criminal law, and contract. Students need not have any prior background in philosophy, but a strong interest in the subject is recommended.

Critical Race Studies Specialization
The UCLA School of Law is the first American law school to offer an advanced curriculum that fosters students’ systematic and rigorous study in the area of critical race studies. With many faculty members who have been instrumental in pioneering and advancing critical race theory, the Critical Race Studies specialization is essential to promoting insightful, intelligent public conversation about race relations. It is appropriate for law students who seek advanced study and/or practice in race and the law, critical race theory, civil rights, public policy, and other legal practice areas that are likely to involve working with racial minority clients and communities or working to combat racial inequality. The course of study emphasizes mastery of five areas: (1) history (centered on the Constitution but focused as well on a variety of other legal documents and experiences), (2) theory (critical race theory, jurisprudence, and theoretical advances outside the legal academy), (3) 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), (4) doctrine (case and statutory law and its interpretation), and (5) practice (including legal practice, community service, and lawyers’ use of social science inquiries and methods).

Entertainment, Media, and Intellectual Property Law Specialization
Los Angeles is the center of the entertainment industry, and recognizing the unique ability to offer a specific program in that arena, the school launched the Entertainment, Media, and Intellectual Property Law specialization in 2005. The specialization is the most comprehensive, advanced, and innovative approach to the study of entertainment and media law in the country. Students who fulfill the requirements have a solid grounding in the law, custom, theory, and policy in the motion picture, television, music, and other industries involved in creative and artistic matters. The program also prepares students who choose to work in non-profit institutions, government, or academia in the area of entertainment, media, and intellectual property law.
PUBLIC INTEREST LAW AND POLICY SPECIALIZATION

Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society and defining public interest broadly to include all interests underrepresented by the private market, the Public Interest Law and Policy specialization strives to provide its students with an innovative and intellectually ambitious curriculum that prepares them to engage in sophisticated representation of traditionally underserved clients and interests. The specialization, one of the nation’s top such programs, has a competitive admissions process. Students represent a broad range of political and ideological perspectives and often pursue additional specializations and joint degrees. Graduates have received prestigious public interest law fellowships, and they work in a variety of settings, with focus on an array of social justice issues ranging from immigration, labor and international human rights to healthcare, welfare and poverty, and civil rights. Faculty members are leaders in their respective fields and have distinguished themselves by the quality of their scholarship and teaching. They represent a broad cross-section of interests on social justice issues and bring to the classroom a depth of knowledge from a wide range of experiences and research perspectives.

PROGRAMS AND CENTERS

CENTER FOR LAW AND ECONOMICS

The mission of the Center for Law and Economics is to foster academic scholarship exploring how economics can help us better understand and improve our laws. UCLA has one of the richest law and economics traditions in the world, and many of the founders of law and economics have made UCLA their academic home. The center, along with the Anderson Graduate School of Management and the law school’s Lowell Milken Institute for Business Law and Policy, sponsors the UCLA Law, Economics, and Organization Workshop where speakers present their latest works-in-progress in the broad area of law and economics as it relates to business organizations.

CLINICAL PROGRAM

With more than 26 diverse clinical offerings, the Clinical Program is widely regarded as one of the strongest in the nation. Housed in a special clinical wing, it provides extensive and rigorous practical training for student-lawyers interested in litigation, transactional, and public interest work. The program is built on two principles: that most legal skills are transferable across practice areas and that such skills are best learned through repetition in increasingly more complex settings. The goal is to provide students with conceptual frameworks that allow them to make reasoned strategic judgments across all substantive areas of law. Students can choose among a wide variety of live-client clinics (in which they represent actual clients) and sophisticated simulation-based courses. In the more than 20 clinical settings, students learn how to interview and counsel clients, draft legal documents, conduct depositions, examine and cross-examine witnesses, resolve disputes, and argue before a judge or jury. Students interested in transactional practice can learn how to finance a start-up company, sell a private company, advise a community-based organization engaged in economic development projects, or manage myriad environmental issues that arise when selling a business.

CRITICAL RACE STUDIES PROGRAM

Throughout American history, race has profoundly affected the lives of individuals, growth of social institutions, substance of culture, and workings of our political economy. Not surprisingly, this impact has been substantially mediated through the law and legal institutions. To understand the deep interconnections between race and law and, particularly the ways in which race and law are mutually constitutive, is an extraordinary intellectual challenge with substantial practical implications. In a nation that is becoming more racially diverse and finds global issues at the forefront of political debate, these issues promise to remain central to the work of law practitioners and the research of legal scholars. The only one of its kind in the U.S., the program is proud that some of the original architects of critical race theory are faculty members. It is the premier institutional setting for the study of the intersection between race and the law. Established in 2000, the program has quickly emerged as a training ground for a new generation of practitioners, scholars, and advocates committed to racial justice theory and practice and is a multifaceted program that augments a rigorous course of study with research colloquia, symposia, interdisciplinary collaborations, and community partnerships in order to integrate theory and practice.

DAVID J. EPSTEIN PROGRAM IN PUBLIC INTEREST LAW AND POLICY

The school’s highly selective David J. Epstein Program in Public Interest Law and Policy was established in 1997 in response to the need to better train public interest lawyers. It quickly became one of the nation’s most innovative and successful law school public interest programs, engaging students in an array of social justice issues. Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society and defining “public interest” broadly to include all interests underrepresented by the private market, the program strives to ensure that its students pursue an innovative and intellectually ambitious curriculum and extracurricular involvement that best prepares them to engage in sophisticated representation of traditionally underserved clients and interests. Beyond the formal coursework, the program provides an array of opportunities for students to hear from leading public interest practitioners and scholars, work on current policy problems, and become involved in public interest activities within and outside the School of Law. The program also sponsors a series of forums, symposia, and activities that focus on social justice issues in which all students, faculty, alumni, and the broader community participate.

EMMETT CENTER ON CLIMATE CHANGE AND THE ENVIRONMENT

The Emmett Center on Climate Change and the Environment is the nation’s first law school center focused exclusively on climate change. It was established in
2008 to tackle the most pressing climate issues and works hand in hand with the Frank G. Wells Environmental Law Clinic and the Evan Frankel Environmental Law and Policy Program. The center engages experts in other UCLA schools, as well as those outside UCLA who are working on matters related to climate change.

**Empirical Research Group**

The UCLA School of Law is one of the only law schools in the country to provide its faculty members with the support of trained statisticians to further empirical research. The Empirical Research Group (ERG) is a methodology-oriented research center that specializes in the design and execution of quantitative research in law and public policy, and enables faculty members to include robust empirical analysis in their legal scholarship. Articles and reports published by faculty members working with ERG have covered topics as diverse as bankruptcy, legal aid, pollution prevention, tax policy, gay rights, the living wage, and campaign finance disclosure. Articles, reports, working papers, and supporting data are posted on the ERG website. In addition to faculty scholarship, ERG trains law students as research assistants in empirical methods such as sampling, data collection, and statistics, and works closely with law students who conduct their own empirical research. ERG has received or facilitated more than $2.5 million in foundation support for specific projects, including a grant from the Pew Charitable Trusts to study state campaign finance disclosure.

**Entertainment, Media, and Intellectual Property Law Program**

The Entertainment, Media, and Intellectual Property Law Program supports and expands the curricular offerings of the Entertainment, Media, and Intellectual Property Law specialization. For students interested in learning more about entertainment law, the program helps them earn externships with entertainment-related businesses, brings influential speakers to campus, and sponsors the industry’s top legal conference on entertainment issues, the annual UCLA Entertainment Symposium. Students run an entertainment-related journal, the *UCLA Entertainment Law Review*, as well as the student organization, the Entertainment Law Association.

**Environmental Law Center**

The Environmental Law Center houses the school’s varied and interdisciplinary work related to environmental law and policy. It includes the Frank G. Wells Environmental Law Clinic, which offers excellent opportunities for students to obtain hands-on experience in environmental law, the Emmett Center on Climate Change and the Environment, and the Evan Frankel Environmental Law and Policy Program, as well as the work of UCLA’s world-class environmental law faculty. The center provides opportunities for members of the UCLA community to have a voice in solving the important environmental issues of the twenty-first century and to educate the public about these issues.

**Evan Frankel Environmental Law and Policy Program**

The Evan Frankel Environmental Law and Policy Program fosters informed analysis of timely and important issues involving governance and regulation in environmental policy. It supports ongoing work on public policy issues related to environmental governance and regulation through research publications, the timely placement of op-eds in influential mainstream publications, and by bringing together stakeholders and policymakers to work toward solutions to critical environmental problems. The program has recently worked on issues including catastrophe prevention and response, enforcing the California Endangered Species Act, pollution prevention mandates, addressing environmental impacts related to liquefied natural gas, and studying air pollution in microenvironments. Through its interdepartmental work with the UCLA Institute of the Environment, the program also participates in publishing the annual Environmental Report Card.

**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.

**Globalization and Labor Standards Program**

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

**Health and Human Rights Law Project**

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

The International and Comparative Law Program is one of the best in the nation. Permanent faculty members who have built their reputations in the field offer numerous international and comparative law courses, such as international business transactions, national security law, human rights, international environmental law, international criminal law, European Union law, and Islamic law. The study of international and comparative law at UCLA is further strengthened by the opportunity to take courses in other UCLA departments. Some of the country’s best work in international economics, politics, and business occurs at UCLA, and many law students find it valuable to complement their law school work with coursework in other departments. Students may also pursue joint degrees with other departments with the approval of the law school administration.

INTERNATIONAL HUMAN RIGHTS LAW PROGRAM

International human rights touch everything from politics to commerce, security to public health, law enforcement to the environment. In 2008, the UCLA Law School established the first major International Human Rights Law Program in Southern California to provide students with opportunities to participate in important human rights activities across the range of clinical work and scholarship. At the core are a clinical program in which students can conduct on-the-ground investigations of international human rights abuses, a research program to frame and address important questions about human rights law, and a public program with regular seminars, workshops, lectures, and films. The International Justice Clinic gives students unique opportunities to participate in the process of holding perpetrators of massive human rights abuses to account.

LAW AND PHILOSOPHY PROGRAM

The School of Law and the Department of Philosophy offer an exciting program in law and philosophy that takes advantage of the law faculty’s strength and depth in the subject and the school’s close relationship to the Philosophy Department. The program has many dimensions, including a wide range of courses at the intersection of law and philosophy and a legal theory workshop, open to all members of the law school and Philosophy Department, in which leading scholars present work in progress.

LOWELL MILKEN INSTITUTE FOR BUSINESS LAW AND POLICY

The central mission of the Lowell Milken Institute for Business Law and Policy is to influence the national legal and policy debate over the critical issues affecting the regulation and governance of business. The institute seeks to fulfill this mission by promoting innovative research at the intersection of law and business by a highly respected and widely recognized business law faculty, by offering a unique blend of policy and practice-oriented courses designed to prepare law students to be leaders in the new economy, and by hosting timely conferences and scholarly events on matters that advance the public discussion.

NATIVE NATIONS LAW AND POLICY CENTER

The Native Nations Law and Policy Center supports Native Nations to enhance their governmental institutions and laws, strengthen their cultural resource protections, and address critical public policy issues by bringing together the University’s academic resources and the knowledge and experience of tribal leaders and knowledge-holders. The center serves as the home for the Tribal Legal Development Clinic and Tribal Appellate Court Clinic that involve students in projects such as constitution drafting, code development, and law clerking for Indian nation clients.

NEGOTIATION AND CONFLICT RESOLUTION PROGRAM

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

OFFICE OF PUBLIC INTEREST PROGRAMS

The UCLA School of Law has a long-standing commitment to public service and is committed to cultivating an environment that encourages all of its students and alumni to better serve society in myriad ways. Students gain significant exposure and experience in public service through clinical courses, a pro bono program, an externship program, extensive public interest advising and informational programming, and numerous student organizations. The Office of Public Interest Programs, the hub of the school’s public interest efforts, hosts a variety of career-oriented programs and relevant public interest forums and events in which students, faculty, alumni, and the broader community participate. The office also hosts the annual Southern California Public Interest Career Day, which attracts more than 110 public service employers and some 1,000 students from around the region. Additionally, the office provides support for the student-run Public Interest Law Fund (PILF) and its annual auction, which raises money to help fund summer public service internships.

PROGRAM ON UNDERSTANDING LAW, SCIENCE, AND EVIDENCE

Founded in 2009, the Program on Understanding Law, Science, and Evidence (PULSE) explores the many connections between law and science, technology, and evidence. PULSE engages in interdisciplinary research, discussion, and programming to examine how basic facts about our world, provided through science and credited as evidence, influence various venues of law and policymaking.
PUBLIC POLICY institute began with the recognition that issues central to legal issues that affect lesbian and gay people. The center is firmly grounded in the scholarship and teaching missions of both schools and offers practical application principles that help real estate industry professionals, public officials, and business people alike make critical policy and business decisions. The center truly bridges the divide between research and practice and offers students a full range of coursework that provides a holistic view of real estate issues.

SANELA DIANA JENKINS HUMAN RIGHTS PROJECT

The Sanela Diana Jenkins Human Rights Project engages in a range of activities, continuously identifying and pursuing the most promising opportunities for addressing human rights issues around the globe, while at the same time advancing understanding about human rights through interdisciplinary studies. The project utilizes the best scholarship and analyses of human rights and international justice from the fields of law, politics, sociology, history, and economics to set its agenda and select human rights opportunities to pursue. And it uses its practical engagement in human rights advocacy to improve scholarly understanding. Typical activities have included the development and utilization of Web-based technologies to advance human rights; assistance to and support of prosecutors and judges in international criminal tribunals; and conferences, roundtable discussions, and speakers series focused on developing a breakthrough understanding of particular human rights challenges. The project also supports human rights and international justice by training the next generation of lawyers in the field.

UCLA-RAND CENTER FOR LAW AND PUBLIC POLICY

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

WILLIAMS INSTITUTE ON SEXUAL ORIENTATION LAW AND PUBLIC POLICY

The Charles R. Williams Institute on Sexual Orientation Law and Public Policy is the only think tank of its kind dedicated to the field of sexual orientation law and public policy. The institute supports legal scholarship, legal research, policy analysis, and education regarding sexual orientation discrimination and other legal issues that affect lesbian and gay people. The institute began with the recognition that issues central to sexual orientation law have profound implications for the development of the law and public policy in general. Drawing on the intellectual and material resources of UCLA, the institute provides a national center for the interdisciplinary exploration of these issues by scholars, judges, practitioners, advocates, and students.

SCHOOL OF NURSING

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http://nursing.ucla.edu

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. At the bachelor’s level, nurses are prepared as generalists with special skills in primary, secondary, and tertiary prevention and care within a population-based context, leadership, and evidence-based practice. At the master’s level, nurses are prepared as generalists in hospital-based care or for advanced nursing practice as nurse practitioners, clinical specialists, or administrators in a variety of settings and specialized areas of healthcare. The Ph.D. program prepares scholars who conduct original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

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

HISTORY AND ACCREDITATION

In 1949 The Regents of the University of California authorized the School of Nursing as one of the professional schools of the UCLA Center for the Health Sciences. This action paved the way in 1950 for the
opening of an undergraduate generic program in nursing leading to the Bachelor of Science (B.S.) degree and made possible the establishment of a graduate program leading to the Master of Science (M.S.) degree in Nursing in 1951. In 1966 the Master of Nursing (M.N.) degree was established as an alternate option to the M.S. degree. The M.S. degree program was discontinued in 1969. The Regents approved the Doctor of Nursing Science (D.N.Sc.) degree program in 1986, and in 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 original generic B.S. program curriculum was revised in 1997 to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing.

In 2006 the school reinstated a generic/prelicensure B.S. program with admission at the freshman level and launched the master’s entry clinical nurse (MECN)/prelicensure program option within the M.S.N. degree program, which is designed for prelicensure students with bachelor’s degrees in another discipline. In 2010 the B.S. (Generic/Prelicensure) program was renamed to the B.S. (Prelicensure) program.

All School of Nursing bachelor’s and master’s programs have Board of Registered Nursing approval. In 2010 the Commission on Collegiate Nursing Education accredited the existing bachelor’s and master’s degree programs for a term 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. The school is committed to an interdisciplinary learning environment.

Nursing encompasses clinical practice, education, research, consultation, leadership, management, and service to the profession and the local and global community. It involves individuals, families, groups, organizations, and communities as clients. The profession must consider the human and physical environments that interact with these clients who may have health conditions that range from wellness to illness. Nursing activities must therefore include health promotion and maintenance, intervention and treatment, rehabilitation and restoration, and palliation. At an advanced practice level, nursing involves comprehensive healthcare that encompasses the responsibility and account-ability 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 healthcare provider, and the larger society, nursing has a social mission that encompasses the right and responsibility to provide leadership in health policy and healthcare to all its clients regardless of disease status, gender, race, or culture.

People who receive client-centered nursing care are complex individuals who exist in relationship to others in their family and community. This complexity of person involves biological, behavioral, emotional, sociocultural, and spiritual dimensions. Each individual reflects a unique combination of these dimensions that interact dynamically with the environment. The clients of nursing are autonomous decision makers who have certain values and knowledge about themselves that not only are relevant but essential to successful healthcare outcomes. As a result, persons have a right and a responsibility to participate collaboratively in their care with the nurse and other health professionals.

Successful nursing students are active learners who bring unique gender, cultural, and ethnic life experiences to the professional practice of nursing. Students at all levels learn relevant theory, acquire practice skills, and are socialized into the profession of nursing. Increasing levels of complexity and sophistication of learning and socialization are expected of students in the different programs. Whether at the beginning practice, advanced practice, or scholar level, nursing students learn to apply knowledge, skills, and professional attitudes in their practice that may include educative, administrative, and research arenas. While

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School of Nursing
Structure of a Degree

**University Requirements**

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

**School Requirements**

1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   - Writing I
   - Writing II
5. Quantitative Reasoning
6. General Education
   - Foundations of Arts and Humanities
   - Foundations of Society and Culture
   - Foundations of Scientific Inquiry

**Major Requirements**

1. Preparation for the Major
2. The Major

Courses that do not satisfy specific University, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
students have the right and responsibility to participate in their own learning, faculty members have the right and responsibility to structure the teaching/learning environment to facilitate learning. Individual academic counseling and a variety of one-on-one, small-group, and interactive learning formats assist students to meet program and individual learning goals.

**Undergraduate Admission**

The School of Nursing admits new undergraduate students in Fall Quarter only. B.S. (Prelicensure) students are admitted at the freshman and junior levels. See Nursing in the Curricula and Courses section for additional admission requirements.

**Undergraduate Degree Requirements**

School of Nursing students must meet three types of requirements for the Bachelor of Science degree:

1. University requirements
2. School requirements
3. Major requirements

**University Requirements**

The University of California has two requirements that undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

School of Nursing students enrolled in English as a Second Language 33A, 33B, 33C, 35 must take each course for a letter grade.

**School Requirements**

The School of Nursing has six requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, quantitative reasoning, and general education.

**Unit Requirement**

Students must complete with a passing grade a minimum of 180 units. At least 83 of the 180 units must be upper division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with advanced placement or international baccalaureate courses may also fulfill a GE requirement. If approved for general education (GE) credit, applicable courses may also fulfill a GE requirement.

**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. Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable). Elective courses may be taken on a Passed/Not Passed basis with prior approval, according to the policy listed in the Academic Policies section of this catalog.

**Academic Residence Requirement**

Students are in residence while enrolled and attending classes at UCLA as a major in the School of Nursing and must complete 77 of the last 97 nursing course units in residence.

**Writing Requirement**

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

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section 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 or an equivalent course 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).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee. Qualifying scores may be viewed on the Office of Undergraduate Admissions and Relations with Schools website. Approved courses are published in the UCLA Schedule of Classes.

**Writing II.** The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of courses published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Affairs Office. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

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

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

**Quantitative Reasoning Requirement**

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a grade of C or better (C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or higher or an SAT Subject Test in Mathematics score of 550 or higher. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Student Affairs Committee. Qualifying examinations and scores may be viewed on the Office of Undergraduate Admissions and Relations with Schools website. Approved courses are listed below.

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

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning requirement. No transfer student is admitted to the school without completing, with a grade of C or better (C– grade is not acceptable), a college-level quantitative reasoning course that the Office of Undergraduate Admissions and Relations with Schools accepts as equivalent to those approved by the Faculty Executive Committee.

Approved courses include Biostatistics 100A, 100B, Mathematics 2 (or any higher numbered course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A, 103B, 103C, 105A, 105B, 105C, 189, 189HC, 195, 197, 199), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Statistics 10, 11, 12, 13, 14.

**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.

**Foundations of Knowledge**

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

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**School of Nursing General Education Requirements**

**Foundations of the Arts and Humanities**

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td>1 Course</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis</td>
<td>1 Course</td>
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<tr>
<td>and Practice</td>
<td></td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
<td></td>
</tr>
</tbody>
</table>

**Foundations of Society and Culture**

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Social Analysis</td>
<td>1 Course</td>
</tr>
<tr>
<td>Third course from either subgroup</td>
<td>1 Course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
<td></td>
</tr>
</tbody>
</table>

**Foundations of Scientific Inquiry**

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Sciences</td>
<td>2 Courses</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>2 Courses</td>
</tr>
<tr>
<td>Total = 18 units minimum</td>
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</table>

**Total GE . . . . . . . . . . . . . . . . . . . . . 10 Courses/48 Units Minimum**

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

Ten courses (48 units minimum) are required. A course taken to meet the Writing II requirement may also be applied toward a GE requirement. Preparation for the major courses may overlap with the foundation courses.

Students must meet with the prelicensure student support coordinator in the Student Affairs Office to determine the applicability of GE Cluster courses toward Writing II or GE requirements.

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

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

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

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

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

- Historical Analysis
- Social Analysis
The aim of courses in this area is to introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. The courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated. Because communication skills are essential in the nursing profession, Communication Studies 10 is recommended for this foundational area.

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

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 important issues, developments, and methodologies in contemporary science.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult an academic counselor or see http://www.registrar.ucla.edu/ge/.

**Intersegmental General Education Transfer Curriculum**

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

Additional requirements are listed under admission and preparation for the major in the Curricula and Courses section.

**STUDENT RESPONSIBILITY**

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

**STUDY LIST**

The presentation of Study Lists by the students and their acceptance by the school evidences an obligation on the part of the students to faithfully perform the designated work to the best of their ability. Withdrawal from, or neglect of, any course entered on the Study List, or a change in program without the formal permission of the assistant dean of Student Affairs renders students liable to enforced withdrawal from the University or other appropriate disciplinary action.

Students are expected to follow the course sequence specified for their program. After the first term, they may petition to carry a program of study exceeding 20 units provided 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.

**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.

**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 school or College department or committee in charge of the new major. Admission to the Nursing major may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

**CONCURRENT ENROLLMENT**

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

**CREDIT LIMITATIONS**

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

**Advanced Placement Tests.** Credit earned through the College Board Advanced Placement (AP) Tests may not 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. See the AP chart at http://www.admissions.ucla.edu/Prospect/APCreditNS.htm for UCLA course equivalents and credit allowed for GE requirements.

**COUNSELING SERVICES**

The School of Nursing gives direction and provides information to interested potential applicants to the B.S. program through admissions information sessions. The schedule for these sessions, program
information, and applications are available at http://nursing.ucla.edu. Applicants may write to the UCLA School of Nursing, Student Affairs Office, 2-137 Factor Building, Box 951702, Los Angeles, CA 90095-1702, call (310) 825-6517, or contact the Student Affairs Office by e-mail at sonsaff@sonnet.ucla.edu. On entry to the junior year, students are assigned a faculty adviser to aid in planning their total program. Advisers continue meeting with students each term to evaluate progress, to identify academic and personal needs and match them with available school and University resources, to confirm University and course requirements, and to maximize the students’ abilities to reach educational and professional goals. Due to the heavy course load that the school’s programs require, students are advised against working full time.

HONORS

School of Nursing undergraduate students who achieve scholastic distinction may qualify for the following 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 grade-point averages. The levels of honors and the requirements for each level are: summa cum laude, an overall average of 3.895; magna cum laude, 3.819; cum laude, 3.693. To be eligible students must have completed at least 98 University of California units for a letter grade. 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.

GRADUATE STUDY

The Master of Science in Nursing (M.S.N.) degree program offers prelicensure and postlicensure options. The master’s entry clinical nurse (MECN)/prelicensure program is designed for students with a bachelor’s degree in another discipline who wish to become registered nurses. The advanced practice nurse (APN)/postlicensure program is for registered nurses with a bachelor’s degree in nursing who wish to prepare for an advanced practice role, such as nurse practitioner, clinical nurse specialist, or nurse administrator. Advanced practice populations include adult/gerontology acute care (with oncology specialization option), adult/gerontology primary care (with coursework specific to occupational and environmental health and gerontology available), family, and pediatrics.

The Ph.D. program prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

ADMISSION

Detailed information about the graduate academic programs offered by the School of Nursing is included in the Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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

For complete degree requirements, see Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

SCHOOL OF THEATER, FILM, AND TELEVISION

Teri E. Schwartz, Dean

UCLA
102 East Melnitz Building
Box 951622
Los Angeles, CA 90095-1622
(310) 825-5761
fax: (310) 825-3383
e-mail: info@tft.ucla.edu
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 for the bare stage or a dramatic narrative on screen, writing scripts or scholarly articles, or making digital movies or designing websites, all students in the school study both the aesthetics and cultural significance of theater, film, and television.

Through an intensive, 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 UCLA Live, 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.

DEPARTMENTS AND PROGRAMS

The Department of Theater and the Department of Film, Television, and Digital Media are essential components of the rich intellectual, cultural, and professional life of UCLA. Depending on the degree involved, 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 300 undergraduate and 100 graduate students interact with over 40 faculty members, outstanding guests of national and international standing, and a professional staff of 35 in an exciting artistic community of theater production and study. The theater and performance studies program offers C.Phil. and Ph.D. degrees for the advanced scholarly study of theater and performance. 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, design, directing, and playwriting.

The Department of Film, Television, and Digital Media includes both production and critical studies programs, with approximately 330 graduate and 75 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 cinema and media 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.

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, in addition to undergraduate minors in Film, Television, and Digital Media and in Theater:

Film and Television (B.A., M.A., M.F.A., C.Phil., Ph.D.)
Individual Field (B.A.)
Moving Image Archive Studies (M.A.)
Theater (B.A., M.A., M.F.A.)
Theater and Performance Studies (C.Phil., Ph.D.)

UNDERGRADUATE ADMISSION

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 available at http://www.tft.ucla.edu. The annual deadline date for applications is November 30 for admission in the following Fall Quarter.

UNDERGRADUATE DEGREE REQUIREMENTS

School of Theater, Film, and Television students must meet three types of requirements for the Bachelor of Arts degree:

<table>
<thead>
<tr>
<th>School of Theater, Film, and Television Structure of a Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University Requirements</strong></td>
</tr>
<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
</tr>
<tr>
<td>2. American History and Institutions</td>
</tr>
<tr>
<td><strong>School Requirements</strong></td>
</tr>
<tr>
<td>1. Unit</td>
</tr>
<tr>
<td>2. Scholarship</td>
</tr>
<tr>
<td>3. Academic Residence</td>
</tr>
<tr>
<td>4. Writing Requirement</td>
</tr>
<tr>
<td>Writing I</td>
</tr>
<tr>
<td>Writing II</td>
</tr>
<tr>
<td>5. Foreign Language</td>
</tr>
<tr>
<td>6. Literature</td>
</tr>
<tr>
<td>7. General Education</td>
</tr>
<tr>
<td>Foundations of Arts and Humanities</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td><strong>Department Requirements</strong></td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
</tr>
</tbody>
</table>

Courses that do not satisfy specific University, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
The University of California has two requirements that undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing 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 each course for a letter grade.

**UNIVERSITY REQUIREMENTS**

The University of California has two requirements that undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section 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 must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Services Office. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

A Writing II course used to meet this requirement may not be applied toward a foundational area under general education or toward the literature requirement. Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements.

**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.

**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 division courses (numbered 100 through 199). No more than 8 units of freshman seminars and/or 8 units of 300-level courses may be applied toward the degree. Credit for upper division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term and a maximum of 32 units total for a letter grade.

**SCHOOL REQUIREMENTS**

The School of Theater, Film, and Television has seven requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, foreign language, literature, and general education.

**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 division courses (numbered 100 through 199). No more than 8 units of freshman seminars and/or 8 units of 300-level courses may be applied toward the degree. Credit for upper division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term and a maximum of 32 units total for a letter grade.

**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.

**Writing Requirement**

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

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section 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 must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Services Office. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

A Writing II course used to meet this requirement may not be applied toward a foundational area under general education or toward the literature requirement. Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements.

**School of Theater, Film, and Television General Education Requirements**

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>Literary and Cultural Analysis</th>
<th>Philosophical and Linguistic Analysis</th>
<th>Visual and Performance Arts Analysis and Practice</th>
<th>5 Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No more than two courses from any one subgroup.</td>
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<tr>
<td>Total = 25 units minimum</td>
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<tr>
<td></td>
<td>Foundations of Society and Culture</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Historical Analysis</td>
<td>1 Course</td>
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<tr>
<td>Social Analysis</td>
<td>1 Course</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Third course from either subgroup</td>
<td>1 Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
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<tr>
<td></td>
<td>Foundations of Scientific Inquiry</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Life Sciences</td>
<td>1 Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1 Course</td>
<td></td>
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<tr>
<td>Total = 8 units minimum</td>
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<tr>
<td>Total GE</td>
<td>10 Courses/48 Units Minimum</td>
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<tr>
<td>A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.</td>
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</tr>
</tbody>
</table>
FOUNDATIONS OF KNOWLEDGE

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

Ten courses (48 units minimum) are required. A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.

Courses listed in more than one category can fulfill GE requirements in only one of the cross-listed categories. GE courses may not be applied toward major requirements.

Foundations of the Arts and Humanities. Five 5-unit courses, with no more than two from any one subgroup:

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

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

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

- Historical Analysis
- Social Analysis

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

Foundations of Scientific Inquiry. Two courses (8 units minimum), one from each subgroup:

- Life Sciences
- Physical Sciences

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 important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

LITERATURE REQUIREMENT

Three courses (12 units minimum) in literature are required, at least one of which must be upper division. A school-approved literature course taken in the original language can fulfill this requirement. A list of courses that satisfy the requirement is available in the Student Services Office. A course taken to meet the Writing II requirement may not also be applied toward the literature requirement.

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.

FOREIGN LANGUAGE REQUIREMENT

Students may meet the foreign language requirement by (1) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin, (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.

For transfer students from California community colleges, completion of the Interssegmental General Education Transfer Curriculum (IGETC) does not fulfill the school foreign language requirement. Students need to complete level three or above of a foreign language course at the community college with a grade of Passed or C or better to complete the requirement.

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

The School of Theater, Film, and Television is recognized for education in production and performance as well as history, theory, and criticism of both established and new digital media.
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/.

Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses or who change their major from another UCLA school or College and have met all GE requirements prior to attending UCLA or changing their UCLA major are not required to complete the School of Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus or UCLA College or school is required. Verification letters should be sent to 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 no less than 56 units, including at least 36 units of upper division courses. 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 2.0 (C) in all courses in order to remain in the major. Each course in the school must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

Any department offering a major in the School of Theater, Film, and Television may require a general final examination.

Double Majors. Double majors in the School of Theater, Film, and Television and other academic units are not permitted.

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

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

STUDY LIST
The Study List is a record of classes that a student is taking for a particular term. Each term the student Study List must include from 12 to 19 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 19 units (up to 22 units maximum) if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 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.

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.

CHANGING A MAJOR
Students in good academic standing who wish to change their major may petition to do so provided they can complete the new major within the 216-unit limit. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.
Due to curriculum changes, students in the Theater major are no longer allowed to change their major to Film and Television at the end of their sophomore year.

**CONCURRENT ENROLLMENT**

Enrollment at 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 undergraduate students enrolled in the school:

**Advanced Placement Tests.** Credit earned through the College Board Advanced Placement (AP) Tests may be applied toward the school and general education requirements. If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the AP chart at [http://www.admissions.ucla.edu/Prospect/APCreditTF.htm](http://www.admissions.ucla.edu/Prospect/APCreditTF.htm) for UCLA course equivalents and credit allowed for GE requirements.

**Graduate Courses.** Undergraduate students who wish to take graduate courses (200 level) for credit toward the bachelor's degree must petition for advance approval of the department chair and the dean of the school and must meet the specific qualifications. Courses numbered in the 400 and 500 series are not open for credit to undergraduate students.

**UCLA Extension.** Extension courses with the prefix X on those numbered in the 1 through 199, 200, 300, 400, or 800 series may not be applied toward the degree.

**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**

Dean's Honors are awarded each term to students who complete their program of study with distinction according to criteria established by the dean of the school.

**LATIN HONORS**

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 *summa cum laude*, an overall average of 3.923; *magna cum laude*, 3.880; *cum laude*, 3.816. 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.

**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.

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://grad.ucla.edu/gasaa/library/pgmrqintro.htm](http://grad.ucla.edu/gasaa/library/pgmrqintro.htm).

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://grad.ucla.edu/gasaa/library/pgmrqintro.htm](http://grad.ucla.edu/gasaa/library/pgmrqintro.htm).
Curricula and Courses

COURSE LISTINGS
Departments and programs are listed alphabetically, with the College or school administering the program identified in the program heading. Curricula and courses are listed under each program. Every effort has been made to ensure the accuracy of the information presented. However, all courses, course descriptions, instructor designations, and curricular degree requirements described herein are subject to change or deletion without notice. Changes to course descriptions and undergraduate programs are posted online in the catalog updates pages at http://www.registrar.ucla.edu/catalog/updates/. For the most current course offerings by term, 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

Undergraduate Course Numbering
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.

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

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

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

Student Research Program tutorials (numbered 99) offer students entry-level research experiences. Students serve as apprentices working with an individual faculty member or in a research group. Students are graded P/NP based on the number of hours they participate in research.

Upper division seminars (numbered 190-194) are small seminars with between 15 and 20 students that focus on research practice or issues. Many are designed to be taken along with a tutorial course in the 195-199 series.

Upper division tutorial courses (numbered 195-199) offer advanced opportunities for research through faculty-supervised internships and apprenticeships as well as honors research, directed research, and senior projects. Courses are structured by the instructor and student at the time they are initiated and are open to juniors (with a minimum 3.0 grade-point average in the major field), seniors, and graduate students. To enroll, students submit a contract (available online through MyUCLA) and have it approved by both the instructor and department chair.

Note: Courses numbered 19, 89, 89HC, 99, 189, and 189HC are not listed in the print catalog. For course descriptions, see online catalog updates at http://www.registrar.ucla.edu/catalog/updates/.

Graduate Course Numbering
Graduate courses numbered 200-299 are generally open only to graduate students who have completed basic undergraduate courses in the subject. Courses and seminars in the 200 series can fulfill the minimum graduate course requirement for any advanced degree.

With departmental and instructor consent, and subject to requirements in the appropriate College or school, undergraduate students may enroll in 200-series courses for unit credit toward the bachelor's degree. If students take a graduate course as an undergraduate, they may not apply that same course later toward a higher degree.

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

Graduate courses numbered 400-499 are designed for professional programs leading to graduate degrees other than the M.A., M.S., and Ph.D. These courses may not be used to satisfy minimum graduate course requirements for the M.A. or M.S. degree but may apply as electives.

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

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

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

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

Multiple-listed courses (identified by a capital M before the course number) are courses offered jointly by more than one department. They need not have identical course numbers, but all other aspects of the course must be the same, such as title, units, requisites, format, and level. For example, Language in Culture is offered by the Department of Anthropology (Anthropology M140) and the Department of Linguistics (Linguistics M146). The course is listed under both departments.

UCLA Extension Courses
In general, students may not attend UCLA Extension for degree credit if they are enrolled in UCLA regular session at the same time. However, certain Extension courses (numbered 1-199), prefixed by XL or XLC in the Extension course listings, yield credit toward the bachelor's degree. Graduate students may petition to apply up to two XLC courses toward the master's degree. For more details, see Concurrent Enrollment in the Academic Policies section of this catalog.
AFRICAN STUDIES
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Dominic R. Thomas, Ph.D. (Comparative Literature, French and Francophone Studies)
Katrina D. Thompson, Ph.D. (Applied Linguistics)

AFRICAN STUDIES
Graduate Courses


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

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.

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

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

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

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

598. Research for and Preparation of M.A. Thesis. (4) Tutorial, to be arranged. Limited to graduate African 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.

AFRO-AMERICAN STUDIES
Interdepartmental Program
College of Letters and Science

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Mignon R. Moore, Ph.D. (Sociology)
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Katrina D. Thompson, Ph.D. (Applied Linguistics, Antoinette K. Yancey, M.D., Ph.D. (Health Policy and Management)
Richard A. Yarborough, Ph.D. (English)

Scope and Objectives

The Afro-American Studies Interdepartmental Program offers a Bachelor of Arts degree, an undergraduate Afro-American Studies minor, a Master of Arts degree, and a concurrent degree program (Afro-American Studies M.A./Law J.D.). A major or minor in this field provides a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from 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 African America. 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. Students may also do individualized study with a professor and/or an internship for course credit.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/libraries/pgmintro.htm. 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. A concurrent degree program (African Studies M.A./Public Health M.P.H.) is also offered.

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. A concurrent degree program is also offered where students can work sequentially for the M.A. in African Studies and the Master of Public Health (M.P.H.).

Academic flexibility draws many students to the program. Because there are more than 50 active faculty members on campus with African interest and experience in many disciplines, students have multiple options to design individualized programs.

Information on the undergraduate minor in African Studies can be found in the International and Area Studies section later in this catalog.

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Scope and Objectives

The Afro-American Studies Interdepartmental Program offers a Bachelor of Arts degree, an undergraduate Afro-American Studies minor, a Master of Arts degree, and a concurrent degree program (Afro-American Studies M.A./Law J.D.). A major or minor in this field provides a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from 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 African America. 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. Students may also do individualized study with a professor and/or an internship for course credit.
Undergraduate Study

Afro-American Studies B.A.

Preparation for the Major

Required: Two courses from Afro-American Studies M5, 6, M10A

Transfer Students

Transfer applicants to the Afro-American Studies major with grade-point averages of 3.5 or better are eligible for the Honors Program, or other Afro-American studies-related project or performance course.

Honors Program

Afro-American Studies majors with grade-point averages of 3.5 or better are eligible for the honors option that requires the completion of a senior thesis under the guidance of an Afro-American Studies faculty member. Students must take Afro-American Studies 198 (independent study course) with an approved proctor who will oversee the thesis requirement. For more information, contact the student affairs officer in the Afro-American Studies Program.

Afro-American Studies Minor

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

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

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

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

No more than 4 graded units of Afro-American Studies 195, 197, and 199 may be applied toward the minor, and no more than two courses may be applied toward both this minor and a major or minor in another department or program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to program approval; consult the student affairs officer before enrolling in any courses for the minor.

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

Graduate Study

Official, specific degree requirements are delineated in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/graddivintro.html. 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. (5) (Same as Sociology M5.) Lecture, four hours; discussion, one hour. Exploration of development of African societies from earliest times to late 18th century. P/NP or letter grading.

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

Upper Division Courses

100B. Psychology from Afro-American Perspective. (4) Lecture, three hours. Survey of psychological literature relevant to Afro-Americans, with emphasis on contributions of Afro-American psychologists. Topics include history of psychology, testing and intelligence, family, personality and motivation, racism and race relations, education, community psychology, and future of Afro-American psychology. P/NP or letter grading.


M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160 and Honors Collegium M102.) 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. (4) (Same as Theater M103A.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

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

M103E. African American Theater History: Depression to Present. (4) (Same as Theater 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 Depression to present. Letter grading.

M104A. Early African American Literature. (5) (Same as English M104A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from 18th century through World War I, including oral and written forms (folktales, spirituals, sermons; fiction, poetry, essays), by authors such as Phillis Wheatley, Frances Harper, Frederick Douglass, Harriet Jacobs, Charles Chesnutt, Booker T. Washington, and Pauline Hopkins. P/ NP or letter grading.

M104B. African American Literature from Harlem Renaissance to 1960s. (6) (Same as English M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century African American literature from New Negro Movement of post-World War I period to 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, Gwendolyn Brooks, and Ralph Ellison. P/NP or letter grading.

M104C. African American Literature of 1960s and 1970s. (5) (Same as English M104C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Intro-
ductory survey of African American literary expression from late 1950s through 1970s. Topics include rise of New Black Arts in 1960s and emergence of black women’s writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Nikki Giovanni, Alice Walker, Audre Lorde, Paule Marshall, and Ernest Gaines. Concurrently scheduled with P/NP or letter grading.

M104D. Contemporary African American Literature. (5) (Same as English M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from 1980s to present covering range of genres, with emphasis on diversity of perspectives and styles that have emerged over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M104E. Topics in African American Literature and Culture. (5) (Same as English M104E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, format, and thematic perspectives. Topics may include African American autobiography, 20th-century African American literature and film, black musical and theater traditions, postmodern American fiction, Afro-Futurism, and African American satire. May be repeated for credit with instructor change. P/NP or letter grading.

M107. Cultural History of Rap. (5) (Same as Ethnomusicology M107 and Gender Studies M107.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.

M109. Women in Jazz. (4) (Same as Ethnomusicology M109 and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm ‘n’ blues, soul, funk, disco, hip-hop, and symbolic relationship between recording industry and effects of cultural politics on black popular music productions.

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

M110B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm ‘n’ blues, soul, funk, soul, hip-hop, and symbolic relationship between recording industry and effects of cultural politics on black popular music productions.

CM112A. African American Music in California. (4) (Same as Ethnomusicology CM112A.) Lecture, three hours. Historical and analytical examination of African American culture 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.


M114C. African American Political Thought. (4) (Same as Labor and Workplace Studies M114C and Political Science M119A.) 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 Political Science M118B.) 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.

M114E. Malcolm X and Black Liberation. (4) (Same as Political Science M118C.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of black radicalism in mid-20th century, with special attention to contribution of Malcolm X and black nationalism to African American liberation movement. P/NP or letter grading.

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

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

C130A. Black Diaspora: Ghana and African Americans—Concurrents. (4) Lecture, three hours; fieldwork, one hour. Exploration of historic and cultural relationship between African Americans and Ghana as part of larger discourse on contemporary black diaspora. Attention to past that linked African Americans to Ghana through Atlantic slave trade and impact on both Ghana and those Ghanians who became American slaves. Consideration of development of Ghana since trade ended, following its history as both colony of Britain and as independent state. Examination of cultural, intellectual, and political connections between African Americans and Ghanian cultures (a broad view) over time. Concurrently scheduled with course C230A. P/NP or letter grading.

C130B. Black Cultural Diaspora: Question of African Cultural Retention, Extension, or Extinction among Black Diaspora People. (4) Lecture, three hours; fieldwork, one hour. Consideration of important intellectual question of destiny of traditional West African cultures in black America. Did enslaved people from Africa arrive in North America completely devoid of their cultures? Did they maintain some cultural attributes for some generations? Were all vestiges of African cultures invisible by end of U.S. Civil War? How were they impacted by other cultures and time and space? Who are major contributors to this debate and what have been their intellectual and methodological approaches? How can study of Ghanaian cultures contribute to this discourse? Focus on traditional cultures of West Africa, particularly Ghana, and their impact on black America. Concurrently scheduled with course C230B. P/NP or letter grading.

M144. Ethnic Politics: African American Politics. (4) (Same as Political Science M144.) Lecture, four hours; discussion, one hour (when scheduled). Preparation: one 140-level political science course or one upper division course on race or ethnicity from history, anthropology, or Political Science 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups, with black Americans as example of analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

M145. Ellingtonia. (4) (Same as Ethnomusicology M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellingtonia concept known as “funk” which emerged in its popular form during late 1960s and reached popular high point, in black culture, during 1970s. Funk, fusion of gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offers students unique window into recent African American history. P/NP or letter grading.

M154C. Black Experience in Latin America and Caribbean. (4) (Same as Political Science M184.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Course presents an historical and cultural overview of African Americans in Latin America and Caribbean, with attention to past that linked African Americans to Latin America and Caribbean through Atlantic slave trade and impact on both Latin America and those Latinos who became African slaves. Consideration of development of Latin America since trade ended, following its history as both colony of Spain and as independent state. Examination of cultural, intellectual, and political connections between African Americans and Latin American cultures (a broad view) over time. Letter grading.

M156. Comparative Slavery Systems. (4) (Same as History M150A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of slavery experiences in various world’s slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North America, Caribbean, and Latin American slave societies. P/NP or letter grading.

M156B-M156C. Introduction to Afro-American History. (4-4) (Same as History M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American experience, with emphasis on three great transitions of Afro-African American life: transition from Africa to New World slavery, transition from slavery to free demesne, and transition from rural to urban milieu. P/NP or letter grading.

M158E. African American Nationalism in First Half of 20th Century. (4) (Same as History M150E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of African American experience, with emphasis on three great transitions of Afro-American life: transition from Africa to New World slavery, transition from slavery to free demesne, and transition from rural to urban milieu. P/NP or letter grading.

M158F. Constructing Race. (4) (Same as Anthropology M158F and Asian American Studies M169.) Lecture, three hours. Examination of race, socially constructed concept, with attention to past that linked African Americans to Latin America and Caribbean, with attention to past that linked African Americans to Latin America and Caribbean through Atlantic slave trade and impact on both Latin America and those Latinos who became African slaves. Consideration of development of Latin America since trade ended, following its history as both colony of Spain and as independent state. Examination of cultural, intellectual, and political connections between African Americans and Latin American cultures (a broad view) over time. Letter grading.
over time and in different regions, racial passing, mul-
tiracial identity in U.S.; whiteness, race in popular cul-
ture, and racial identity. P/NP or letter grading.

M163. Investigative Journalism and Color (4) (Same as Asian American Studies M163.) Lecture, three hours. Role of investigative journalism in understanding interethnic conflict and cooperation. Exploration of different perspectives on issues by comparing mainstream, ethnic, and alterna-
tive media coverage. P/NP or letter grading.

M164. Afro-American Experience in U.S. (4) (Same as Anthropology M164.) Lecture, three hours. Promotes understanding of contemporary sociocul-
tural forms among Afro-Americans in U.S. by present-
ing comparative and diachronic perspective on Afro-
American experience in New World. Emphasis on uti-
lization of anthropological concepts and methods in understanding origins and maintenance of particular patterns of adaptation among black Americans. P/NP or letter grading.

M165. Sociology of Race and Labor. (4) (Same as Labor and Workplace Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Exploration of relationship between race/ethnicity, employment, and U.S. labor movement. Emphasis on racial characteristics of workforce and how they evolved historically. Consid-
eration of circumstances under which workers and unions have excluded people of color from jobs and unions, and implications for labor today. Guest workers and unions have organized people of color into unions in efforts to improve their wages and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

M166. Afro-American Sociolinguistics: Black En-
glish. (4) (Same as Anthropology M145.) Lecture, three hours. Basic information on Black American En-
glish, important minority dialects in U.S. Social implica-
tions of minority dialects examined from perspectives of their genesis, maintenance, and social functions. General problems and issues in fields of sociolinguistics examined through case-study approach. Letter grading.

M167. Worker Center Movement: Next Wave Orga-
nizing for Justice for Immigrant Workers. (4) (Same as Asian American Studies M166C, Chicana and Chicano Studies M130, and Labor and Work-
place Studies M167.) Seminar, three hours. Development of theoretical and practical understanding of worker center movement, with focus on historical fac-
tors that have led to growth of worker centers. Role of worker centers in promoting multiracial and multiracial campaigns for workplace and eco-
nomic justice. Transnational cross-border solidarity is-
sues and rights of undocumented workers. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as Gender Studies M172 and Psychology M172.) Lec-
ture, two and one-half hours. Designed for juniors/se-
niors. Impact of social, psychological, political, and economic forces which impinge on interpersonal rela-
tionships of Afro-American women as members of large society and members of their biological and ethnic group. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as Chicana and Chicano Studies M173 and Labor and Workplace Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contribu-
tions of civil rights struggles and role of nonviolent ac-
tion throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

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

M179A. Topics in Caribbean Literature. (5) (Same as English M191A.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in African American fiction. Reading, discussion, and use of reference ma-
erial. African American literature in Nubian, Black Women's Writing, Contemporary African American Fiction, African American Poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

179B. Special Studies in Comparative Literature: Carribean Literature. (4) Seminar, three hours. General introduction to literature of English-speaking Caribbean by reviewing its historical and geographical background. To analyze historical process toward self-determination in literature, following topics are in-
cluded: (1) alienation and search for community, (2) external relationships (ancestor, kinsman, other), and (3) form and language. P/NP or letter grading.

M182A. Language, Literacy, and Human Develop-
ment Ethnography (2) (Same as Education M182A.) Fieldwork, three hours. Enforced corequisite: course M194B. Students visit after-school site on weekly ba-
sis and use ethnomethods to document learn-
ing. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M182B. Culture, Gender, and Human Develop-
ment Ethnography (2) (Same as Education M182B.) Fieldwork, three hours. Enforced corequire-
site: course M194C. Students visit after-school site on weekly ba-
sis and use ethnomethods to document learn-
ing. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M182C. Culture, Communications, and Human Development Ethnography (2) (Same as Education M182C.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on weekly ba-
sis and use ethnomethods to document learn-
ing. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183A. Language, Literacy, and Human Develop-
ment Ethnography (3) (Same as Education M183A.) Fieldwork, six hours. Enforced corequisite: course M194C. Students visit after-school site on weekly ba-
sis and use ethnomethods to document learn-
ing. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

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

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

188A. Special Courses in Afro-American Studies. (4) Seminar, four hours. Program-sponsored experi-
mental or temporary courses, such as those taught by visiting faculty member. Enforced prerequisite: credit with topic change. P/NP or letter grading.

188B. Race and Public Policy. (5) Seminar, three hours. Exploration of range of public policies con-
cerned with promoting civil rights of racial minorities, with focus on education, voting, and housing. Why did such policies initially arise? How have they since de-
veloped? How effective have they been in closing ra-
cial gap? Provides students with basic foundation of knowledge for thinking through contemporary debates surrounding policies that seek to redress racial dis-
crimination in U.S. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to upper division lecture course. Indi-
vidual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other academic activity. May be repeated for credit with different instructor. P/NP or letter grading.

C191. Various Topics Research Seminars. Afro-
American Studies. (4) Seminar, four hours. Re-
search seminar on selected topics in Afro-American studies. Reading, discussion, and development of cul-
m ing project. May be repeated for credit. Concur-
rent enrollment with course. P/NP or letter grading.

M194A. Language, Literacy, and Human Develop-
ment Research Group Seminars (5) (Same as Edu-
cation M194A.) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequire-
site: course M182A or M183A. Research seminar de-
signed to provide opportunity to combine theory and pракtice in study of human development in education-
al contexts. Focus on relationship between theories of development, culture, and language. May be taken in-
dependently for credit. Letter grading.

M194B. Culture, Gender, and Human Develop-
ment Research Group Seminars (5) (Same as Edu-
cation M194B.) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequire-
site: course M182B or M183B. Research seminar de-
signed to provide opportunity to combine theory and practice in study of human development in education-
al contexts. Focus on relationship between theories of development, culture, and gender. May be taken inde-
dependently for credit. Letter grading.

M194C. Language, Communications, and Human Development Research Group Seminars (5) (Same as Education M194C.) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequire-
site: course M182C or M183C. Research seminar de-
signed to provide opportunity to combine theory and practice in study of human development in education-
al contexts. Focus on relationship between theories of development, culture, and technologies. May be taken independently for credit. Letter grading.

195. Community or Corporate Internships in Af-
ro-American Studies. (4) Tutorial, four hours. Prepara-
tion: 3.0 grade-point average in major. Limited to ju-
ior/senior majors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic re-
ports of their experience. Eight units may be applied toward major requirements. May be repeated for credit.

Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Afro-American Studies. (2 to 4) Tutorial, four hours. Preparation: 3.0 grade-
point average in major. Limited to juniors/seniors. Indi-
vidual intensive study, with scheduled meetings to be arranged between faculty member and student. As-
signed reading and tangible evidence of mastery of subject matter required. Eight units may be applied to-
ward major requirements. May be repeated for credit.

Individual contract required. P/NP or letter grading.

198. Honors Research in Afro-American Studies. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. De-
velopment and completion of honors thesis or compre-
nensive research project under direct supervi-
sion of faculty member. May be repeated for credit. In-
dividual contract required. 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.

200B. 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 U.S. Presented in context that is at once comparative and international, seminar emphasizes internationalism and transnationalism as well as uniqueness of Afro-American condition. Attempts to relate black condition in U.S. to socioeconomic system of world. Seminar to compare it to political, social, and economic conditions of African peoples elsewhere. S/U or letter grading.

M200C. Black Families and Relationships. (4) (Same as Sociology M262.) Seminar, three hours. Evaluation of social, educational, and historical factors that affect socialization, stability, and interaction in black intimate relationships, beginning with theoretical framework from black feminism to analysis of economic, social, and historical influences on partners in cohabiting and other types of unions. Examination of family life for both middle-class and low-income populations. Exploration of notions of black sexuality, including images of the woman and the man, and intermarriage within black body and critical interrogation of notions of blackness and authenticity in racial identification. Contribution to greater understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean and other ethnic identities, and interracial intimacies. S/U or letter grading.

M200D. Afro-American Sociolinguistics: Black English. (4) (Same as Anthropology M243Q) Lecture, four hours. Intensive study and use of Black American English, one important minority dialect in U.S. Social implications of minority dialects examined from perspectives of their genesis, maintenance, and social functions. Consideration of the relationship between black body and black identity and blackness, and application of such research. Letter grading.

M200E. Studies in Afro-American Literature. (4) (Same as English M262.) Lecture, four hours. Intensive 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.


CM212A. African American Music in California. (4) (Same as Ethnomusicology CM212) Lecture, four hours. Historical and analytical examination of African American music in California, including foratory migrations, movement 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.

CM212D. African American Art. (4) (Same as Art History CM212D) Lecture, three hours. Detailed inquiry into work of 20th-century African American artists whose works provide insightful and original 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 CM112D. S/U or letter grading.

CM212E. 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.

CM212F. Imaging Black Popular Culture. (4) (Same as Art History CM212F) Lecture, three hours. Critical examination of media ranging from African American music to popular culture of MTV and advertising, with emphasis on the relationships between black visual production and racism, Afrocentricity, political resistance, and blackness. Concurrently scheduled with course CM112F. S/U or letter grading.

C220A. Black Diaspora: Ghana and African Americans — Connections and Crosscurrents. (4) Lecture, three hours; fieldwork, one hour. Consideration of important intellectual question of destiny of traditional West African intellectuals in terms of their cultural milieu, historical background, and development of Ghana since trade ended, following its history as both colony of Britain and as independent state. Examination of range of topics, including role of Africans who became American slaves. Consideration of development of Ghana since trade ended, following its history as both colony of Britain and as independent state. Examination of cultural, intellectual, and political connections between African Americans in Ghana and West Africa more broadly over time. Concurrently scheduled with course C130A. S/U or letter grading.

C220B. Black Cultural Diaspora: Question of African Cultural Retention, Extension, or Extinction among Black Americans. (4) Lecture, three hours; fieldwork, one hour. Consideration of important intellectual question of destiny of traditional West African cultures in black America. Did enslaved people from Africa arrive in North America completely devoid of their cultures? Did they maintain some cultural attributes or characteristics? Were all vestiges of African cultures invisible by end of U.S. Civil War? How was culture of African Americans transformed across time and space? Who are major contributors to this debate and what have been their intellectual and methodological approaches? How can study of Ghanaian cultures contribute to this discourse? Focus on traditional cultures of West Africa, particularly Ghana, and its imprint on black culture in North America. Concurrently scheduled with course C130B. S/U or letter grading.

M240. Assessment and Treatment of African American Families. (4) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with African American clients. S/U or 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.

M252S. Constructing Race. (4) (Same as Anthropology M252S) Seminar, three hours. Examination of social construction of race from anthropological perspective in order to refine understanding of ways this category has had and continues to have concrete impact in U.S. Exploration of range of topics, including role disciplines of anthropology has played in construction of race, representations of race in popular culture, instability of race revealed in passing and debates about multiracial identity, construction of whiteness, and emergence of identity politics. S/U or letter grading.

M256. Topics in African American Art. (4) (Same as Art History M256.) Seminar, three hours. Required credit. S/U or letter grading.

270A. Survey of Afro-American Research. (4) Seminar, three hours. Overview of research methodology and techniques of psychology for graduate students. Letter grading.

C291. Variable Topics in Afro-American Studies. (4) Seminar, four hours. Research seminar on selected topics in Afro-American studies. Reading, discussion, and development of culminating project. May be repeated for credit. Concurrently scheduled with course CM119. Letter grading.

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

597. Preparation for M.A. Comprehensive Examination. (4 or 8) Tutorial, to be arranged. May be applied toward M.A. course requirements. S/U grading.

598. Research and Preparation of M.A. Thesis. (4 or 8) Tutorial, to be arranged. May be applied toward M.A. course requirements. S/U grading.

Scope and Objectives

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

American Indian Studies B.A.

Capstone Major

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 experience of Native Americans not only in the U.S. and Canada but in Mexico and elsewhere in Latin America as well.

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

Preparation for the Major

Required: American Indian Studies M10 and two courses from Anthropology 9, Gender Studies 10, Political Science 40, Statistics 12. Each course must be completed with a grade of C or better.

Transfer Students

Transfer applicants to the American Indian Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to American Indian studies course and two courses from culture and society, introduction to American politics, introduction to statistical methods, and introduction to women's studies.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Requirements are distributed according to certain categories to create a breadth of knowledge. Students are required to take a research methods course to become familiar with scholarly techniques of knowledge production and to critically regard academic research, as well as a course in either ethnic/race/gender relations or comparative indigenous studies. Additional courses are selected in the social sciences and humanities according to a distributional formula that encourages further specialization within either of these two broad areas while simultaneously adding additional breadth. Finally, American Indian Studies C122SL prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that provides service experience and/or supervised internship opportunities.

The 12 courses must fit one of the following regional emphasis patterns: (1) Native North America — eight courses, including those mentioned below and additional electives on Native North American topics or (2) indigenous peoples of the Americas — eight courses, including at least four dealing with indigenous people in Central and/or South America. Students must complete 12 upper division courses (48 units) as follows, with no more than 32 units from American Indian studies courses:

1. Ten core courses (40 units), including (a) American Indian Studies M161, (b) two language courses from Anthropology M140, C144, Linguistics 114, (c) two history or law courses from American Indian Studies 140, 158, C170, History 149A, 149B, 157B, (d) one social sciences course from American Indian Studies C120, C121, C130, C175, C178, Anthropology CM168P, 172A, or 174P, (e) two expressive culture courses from American Indian Studies 180, Art History C117A through C117D, 118D, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, (f) one methodology course from Anthropology 139, Art History 100, Community Health Sciences 181, Comparative Literature 100, Ethnomusicology 180, Linguistics 160, Political Science 170A, Sociology 106A, 113, or World Arts and Cultures 195, and (g) either one ethnic/race/gender relations course (Afro-American Studies M164, Anthropology M134, M152, M154R, M154Q, Asian American Studies 130A, M130B, M130C, 131A, 132A, 133, 134, Chicana and Chicano Studies M182, Communication Studies 124, Film and Television 128, Gender Studies 130, 168, Sociology 154, 156, or M162) or one comparative indigenous studies course (Anthropology 153P, Geography M131, History 135A, or Sociology 157)

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

3. American Indian Studies 199C (capstone course)

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

Honors Program

The honors program is designed for American Indian Studies majors who are interested in carrying out an independent research project that culminates in an interdepartmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project. All junior and senior American Indian Studies majors who have a cumulative grade-point average of 3.0 or better and at least a cumulative GPA of 3.5 in coursework in the major are eligible to apply. Consult the student affairs officer for more information.

To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in the major course requirements and an overall GPA of 3.0 or better, and (3) complete American Indian Studies 198A-198B-198C, taken with a professor who agrees to mentor and guide them through the stages of senior essay design and development during their senior year. Completion of a senior thesis is required.

American Indian Studies Minor

The American Indian Studies minor is designed for students who wish to augment their major
American Indian Studies

Lower Division Course

M10. Introduction to American Indian Studies. (5) (Same as World Arts and Cultures M25.) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native 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

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as Afro-American Studies M118, Asian American Studies M166, and Chicana and Chicano Studies M118.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.


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

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


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

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

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


M162. Language Endangerment and Linguistic Revitalization. (4) (Same as Anthropology M162.) Lecture, three hours; activity, one hour. Requisites: course M10, Anthropology 33. Examination of causes and consequences of current worldwide loss of linguistic diversity and resulting efforts that members of threatened heritage language communities have produced in their attempt to revitalize these languages. Projected loss as many as half of world’s languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideological change, and language shift away from smaller indigenous and tribal languages. Since loss of such languages means both reduction of cultural as well as linguistic diversity, many affected communities have engaged in various language renewal practices. Examination of some diverse strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform approaches. Evaluation of effectiveness of various measures and of every imagery used to discuss language endangerment. P/NP or 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 healthcare of Native North Americans (within present boundaries of U.S. and Canada) in relation to cultural, social, political, and economic aspects of this context. Concurrently scheduled with course CM268P. P/NP or letter grading.

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

C175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern Californian indigenous societies, discussion, guest lecturers, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of department chair. Concurrently scheduled with course C275. Letter grading.

C178. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these
laws, examination of series of cases from California sites. Concurrently scheduled with course C278. Letter grading.

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

187. Special Topics in American Indian Studies. (4) Lecture, four hours. Variable topics selected from following: Myth and Folklore of Indian Societies; Contemporary American Indian Literature; Social Science Perspectives of American Indian Life; Law and American Indian; History of American Indians (cultural area); Dance and Music of American Indians (cultural area); American Indian Policy. Consult Schedule of Classes for topics and instructors. May be repeated twice for credit. Letter grading.

195. Community Internships in American Indian Studies. (4) Tutorial, two hours; fieldwork, eight hours. Requirement: course M10. Limited to juniors/seniors. Internship opportunities in setting in community agency. Students meet on regular basis with instructor and provide periodic reports on their experience. Designed to integrate theory and practice through the placement in a site-specific setting and knowledge of diversity, complexity, and variety of needs of American Indian communities. May be repeated for a maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in American Indian Studies. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for a maximum of 16 units. Individual contract required. P/NP or letter grading.

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

199. Directed Research or Senior Project in American Indian Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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

Graduate Courses

M200A. Advanced Historiography: American Indian Peoples. (4) (Same as History M200W.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indian communities of various cultural traditions or oral traditions and other expressive cultural forms — dance, art, song, religious and medicinal ritual — in selected Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodological approaches taken from literary analysis, structural anthropology, folklore, literary texts, and ethnomusicology. May be repeated for credit with instructor and/or topic change. Letter grading.

M200C. Contemporary Issues of American Indians. (4) (Same as Anthropology M269 and Sociology M275.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in contemporary world, building on historical background presented in course C200A and cultural and expressive 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.

M202. Qualitative Research Design and Methodology for Indigenous Studies (Same as Health Policy and Management M202 and Nursing M221.) Seminar, three hours. Introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research design, use, and special considerations in conducting research in American Indian country. Design of research and exploration of feasibility of researching topics. Letter grading.

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

C221. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, Native guest lecturers, and project participation, introduction to rules of conduct and skills necessary to successfully work or carry out community service in American Indian communities and organizations. Concurrently scheduled with course C121. S/U or letter grading.

C222SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. (Formerly numbered C222.) Recommended: course C220. Participation in community service learning project within Native American communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward completing assigned service learning tasks and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C122SL. S/U or letter grading.

M228A-228B. Tribal Legal Systems. (1 to 8 each) (Formerly numbered M238.) (Same as Law M272.) Lecture, two hours. Course M228A is enforced requisite to M228B. Legislative and constitutional law and policy, focusing on institutions, fertility and justice relations, comparative policy, colonialism, migration, national and social identities, and other issues and social cultural processes, as seen from different ethnic, race, class, and nation, with focus on indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analytic and policy patterns that give greater understanding and knowledge about current conditions and social and cultural processes of indigenous nations. Concurrently scheduled with course C114. S/U or letter grading.

C225. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to topics on contemporary indigenous nations and indigenous movements, social and cultural change and continuity, nation building, law and justice relations, economic development, education and socialization, international relations, comparative political systems, American federal systems of Native American tribal nations. De-
sues posed by federal and state legislation singling out Indian nations and tribal members. Federal statutory regime, regulatory tribal gaming and child welfare include. Students gain critical understanding of basic tenets of Indian law, bases of tribal sovereignty, structure of federal-tribal relationship and its history, and sense of future directions courts, tribes, and Congress make in addressing current legal issues in Indian country. In Progress (M265A) and S/U or letter (265B) grading.

M267. Federal Indian Law II. (1 to 6) (Same as Law M382) Seminar, three hours. Requisites: courses M238A and 238B, or M265A and 265B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. S/U or letter grading.

M267A-267B. Federal Indian Law II. (1 to 8 each) (Same as Law M382B) Seminar, three hours. Requisites: courses M238A and 238B, or M265A and 265B. Course M267A is enforced requisite to 267B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. In Progress (M267A) and S/U or letter (267B) grading.

C278. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAG- PRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C178. S/U or letter grading.

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


ANESTHESIOLOGY

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Chairs

Patricia A. Kapur, M.D., Ronald L. Katz, M.D., Endowed Professor of Anesthesiology, Chair

Randolph H. Steadman, M.D., Vice Chair, Education

Barbara M. Van de Weile, M.D., Vice Chair, Clinical Affairs

Yifan Wang, Ph.D., Vice Chair, Research

Aman Mahajan, M.D., Ph.D., Vice Chair, Acute Care Medicine

Scope and Objectives

The medical student program in anesthesiology 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, tech- niques of invasive line and monitor placement, and airway management skills. They are as- signed to work with a specific attending anesthesiologist and/or anesthesiologist resident on a daily basis in one of the operating room loca- tions and participate in the preoperative evalua- tion and preparation of their patients and develop- ment 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’s Hu- man Patient Simulator provides students with a simulated operating room setting where a vari- ety of clinical situations are initiated so they can practice their clinical skills. Students are also expected to attend clinically oriented lectures on a wide range of anesthesia topics, including physiology, pharmacology, and critical care.

For further details on the Department of Anesthesiology and a listing of the courses offered, see http://www.anes.ucla.edu.

Anesthesiology

Upper Division Course

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

ANTHROPOLOGY

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P. Jeffrey Brantingham, Ph.D.

Carole H. Browner, Ph.D., in Residence

Alejandro Duranti, Ph.D.

Alan Page Fiske, Ph.D.

Linda C. Garro, Ph.D.

Marjorie Harness Goodwin, Ph.D.

Akhil Gupta, Ph.D.

Douglas W. Holland, Ph.D.

Paul V. Kroskrity, Ph.D.

Richard G. Leslie, Ph.D.

Nancy E. Levine, Ph.D.

Joseph H. Manson, Ph.D.

Claudia I. Mitchell-Kernan, Ph.D.

Elinor Ochs, Ph.D.

Sherry B. Ortner, Ph.D.

Susan E. Perry, Ph.D.

Dwight W. Read, Ph.D.

Joan B. Silk, Ph.D.

Susan E. Sliomovics, Ph.D.

Monica L. Smith, Ph.D.

Charles S. Stanish, Ph.D.

Mariko Tamanoi, Ph.D.

Russell Thornton, Ph.D.

Thomas S. Weissner, Ph.D., in Residence

Professors Emeriti

Nicholas G. Blurrton Jones, Ph.D.

Karen B. Brodkin, Ph.D.

Christopher B. Donnan, Ph.D.

Robert B. Edgerton, Ph.D. (University Professor Emeritus)

Sondra Hale, Ph.D.

Peter B. Hammond, Ph.D.

Allen W. Johnson, Ph.D.

Lewis L. Langness, Ph.D.

Jacques Maquet, Ph.D.

Michael Moerman, Ph.D.

Philip L. Newman, Ph.D.

Wendell H. Osuelt, Ph.D.

Merrick Posansky, Ph.D.

Douglass R. Price-Williams, Ph.D.

James R. Sackett, Ph.D.

Johannes Wilbert, Ph.D.

Bobby Joe Williams, Ph.D.

Elinor Ochs, Ph.D.

Richard G. Lesure, Ph.D.

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Johannes Wilbert, Ph.D.

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Scope and Objectives

Anthropology, the broadest of the social sciences, is the study of humankind. One of the strengths of anthropology as a discipline is its "holistic" or integrative approach; it links the life sciences and the humanities and has strong ties with disciplines ranging from biology and psychology to linguistics, political science, and the fine arts. Anthropological study is appropriate for students 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 graduate and undergraduate programs focus on methods of discovery (field and laboratory courses), strategies of analysis pertaining to long-term cultural evolution (theory, analytic, and topical courses), and the unfolding of prehistory in many regions of the world, including North America, Mesoamerica, South America, and several parts of the Old World (regional courses). Faculty members have long-standing interests in the origins and evolution of complexity, including early human adaptations, the political organization of complex hunters/gatherers, the origins of early village life, and the emergence and florescence of ancient cities and states. Faculty members maintain programs of field research involving many students in North America, Mesoamerica, South America, and East and South Asia.

- **Biological anthropology** is the study of humans and other primates from a Darwinian point of view. The program focuses on the evolutionary ecology of early hominids, extant primates, and contemporary humans and includes training in evolutionary theory, behavioral ecology, evolutionary psychology, paleoanthropology, paleoecology, primate behavior, and mathematical modeling. Faculty members associated with the program have engaged in fieldwork in Africa, Central America, and Southeast Asia where ongoing projects include work on primate behavior, hominid evolution, and evolutionary psychology.

- **Linguistic anthropology** is an interdisciplinary field that addresses the manifold ways in which language, interaction, and culture mutually organize each other in different communities worldwide. Linguistic anthropologists at UCLA have a variety of backgrounds and research interests that include face-to-face communication, language contact and change, language and politics, language socialization across the lifespan, verbal art and performance, and the relation of language to ideology, mind, emotion, and identity. Courses are offered in ethnographic approaches to discourse analysis, field methods, language ideology, conversation analysis, language socialization, and communication in urban communities, as well as on cross-cultural language practices.

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

Bridging the four primary subfields are several other dimensions of anthropological study, including psychocultural anthropology and medical anthropology. Courses are also offered in the history and theory of anthropology and a wide range of anthropological methods.

The department offers Bachelor of Arts and Bachelor of Science degrees and a minor in Anthropology for undergraduate students; the graduate program leads to the Master of Arts and 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 education, education, law, medicine, nursing, public health, social welfare, and urban planning. Because of its breadth of outlook, anthropological studies provide 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, 8, 9, 33; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, and 3C, or 31A and 31B; Physics 6A, 6B, and 6C, or 6AH, 6BH, and 6CH; Statistics 12. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Transfer Students**

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

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

The major is designed for students interested in an anthropological understanding of human behavior. One of the strengths of anthropology is its cross-cultural “holistic” and integrative approach with many fields, such as biology, history, linguistics, the social sciences, and many of the humanities.

To 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. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Students must complete 11 courses (44 to 52 units) as follows: (1) two upper division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology), (2) one upper division region and society course, (3) one upper division history/theory course, (4) one upper division methodology course, and (5) three additional upper division anthropology courses.

Students are strongly encouraged to enroll in 3 to 4 units of 89 and/or 189 courses to gain small seminar experience. Ideally, at least one of the units should be at the upper division level.
taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaslibrary/pgmrintro.htm. 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 human species. P/NP or letter grading.

8. Archaeology: 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 world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is contribution and knowledge that cultural diversity makes toward understanding problems of modern world. P/NP or letter grading.


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 ethnoculturally oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multiculturalism, 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 with local, regional, and national linguistic 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.

88A. Sophomore Seminars: Anthropology. (2) Seminar, 90 minutes. Limited to 20 lower division students. Readings and discussions designed to introduce students to current research in discipline. Cumulating project may be required. May be repeated for credit with topic change. P/NP or letter grading.

Upper Division Courses

Archaeology


CM110Q. Introduction to Archaeological Sciences. (4) (Same as Ancient Near East CM169.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have embedded them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological and biochemical techniques), and interpretive presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM210Q. P/NP or letter grading.

111. Theory of Anthropological Archaeology. (4) Lecture, three hours. Required: course 8. Method and theory with emphasis on archaeology within context of anthropology. Themes include theoretical developments over last 50 years, structure of archaeological reasoning, and selective survey of work on problems of general anthropological interest. P/NP or letter grading.


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

113Q. California Archaeology. (4) Lecture, three hours. From earliest Californians through 10,000 years of history, study of diversity in California's original peoples. Aspects of technology, ideology, ecology, and social/political organization. Historic impacts on California Indians by Euro-Americans. P/NP or letter grading.

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

114L. Archaeology of Chiefdoms. (4) Seminar, three hours. Enforced prerequisite: course 8. Examination of chiefdom societies in anthropological record, with readings focused on theory and data from archaological, historical, and ethnographic literature. Illustration of how people in ranked non-state societies created remarkably rich cultures over entire globe beginning several millennia ago in both Old World and Americas. Letter grading.

114P. Ancient Civilizations of Mesoamerica. (4) Lecture, three hours. Archaeology of pre-Hispanic native cultures of Mesoamerica from late Pleistocene through Spanish conquests, with emphasis on formative sociopolitical developments, classic period civilizations, and Aztec society as revealed by archaeology and early Spanish writing. P/NP or letter grading.
114Q. Topics in Archaeology of Mesoamerica. (4) Lecture, three hours. Designed for juniors/seniors. Specialized and particular regional topics in archaeology of pre-Hispanic Mesoamerica. Specific topics vary but include archaeology and ethnohistory, ancient Mesoamerican religions, Olmec art and archaeology, and Maya. P/ NP or letter grading.

114R. Ancient Civilizations of Andean South America. (4) Lecture, three hours. Enforced requisite: course 8 or 9. Pre-Hispanic and Peruvian period native cultures of Andean South America, as revealed by archaeological data. Inca and Moche predecessors in Peru, with emphasis on sociopolitical 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 early cities, states, and empires in the Americas. Emphasis on interpreting archaeological evidence from early cultures characteristic of the Andes, and archaeology of pre-Hispanic Mesoamerica. Specialized consideration of particular regions or topics. Concurrently scheduled with course CM214S. P/ NP or letter grading.

114T. Moche Civilization of Ancient Peru. (4) Lecture, three hours. Enforced requisite: course 114R. Moche civilization, which flourished on the north coast of Peru between A.D. 100 and 800, as revealed by archaeology, iconography, ethnography, and early Spanish writers. Focus on Moche aesthetic, technological, and artistic achievements. Letter grading.

M115A-M115B. Historical Archaeology, (4-4) (Same as History M102A-M102B) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: for juniors/seniors. P/ NP or letter grading.

M115A. World Perspective. Historical archaeology requires appreciation of historical sources, archaeology, and material evidence. The course emphasizes, with exploration of breadth of discipline both in Old World and Americas. M115B. American Perspective. Emphasis on historical archaeology in North America, particularly to some prehistory.

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). Enforced requisite: course 8. Off-campus field archaeology course offered in either regular summer or summer sessions. Procedures of archaeological excavation, recording, mapping, surveying, and initial analysis of archaeological data. P/ NP or letter grading.

115Q. Politics of Past. (4) Seminar, three hours. Enforced requisite: one of social and cultural context of modern archaeology. Topics include legal frameworks governing archaeological practice, relationships between archaeologists and descendant peoples, and archaeology in current politics. P/ NP or letter grading.

C115R. Strategy of Archaeology. (4) Seminar, three hours. Designed for juniors/seniors. 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 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.

116N. Archaeology of Ancient Civilizations: China. (4) Lecture, three hours. Examination of current development of archaeological evidence of Chinese civilizations, with special focus on development of social complexity and interregional interaction networks, and emergence of early Chinese states, and early civilization. Correlation of these issues within framework of world prehistory and comparative civilizations, addressing contemporary archaeological theories and methods, as well as major research projects and debates that contribute directly to current interpretations of social changes observed in archaeologically record. Letter grading.


M116S. Archaeological Landscapes of China. (4) (Same as Chinese M183.) Lecture, three hours; discussion, one hour. Declassified space images from Cold War era and remote sensing data of 21st-century provide new opportunities for studying landscape transformation in historical China. Combining lectures, library research, and hands-on analysis of archaeological records, investigation of changing historical and archaeological landscape in China during last 5,000 years. Social processes at various scales, from emergence of early cities to rise of metropolitan centers and formation of imperial landscapes. Letter grading.

117. Archaeological Laboratory Methods. (6) Lecture, three hours; laboratory, two to three hours. Enforced requisite: course 8. Introduction to archaeological analysis methods. Procedures of classification, analysis, data entry. Extensive laboratory work with lithic artifacts, vertebrate fauna, shellfish, plant remains and shell tools, ceramicics, P/ NP or letter grading.

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

117Q. Intensive Laboratory Training in Archaeology. (6) Lecture, three hours; laboratory, three hours. Enforced requisite: course 8. Archaeologists with special expertise in specific 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.

118. Selected Topics in Archaeology. (4) Lecture, three hours. Study of selected topics. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/ NP or letter grading.

M119. Topics in African History: Prehistoric Africa - Technological and Cultural Traditions. (4) (Same as History M164A.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one semester of History 3 or 4 or 6. Enforced requisite for juniors/seniors. Survey of nondocumentary sources of early African history, with emphasis on archaeological evidence from origins of humanity until A.D. 1600. P/ NP or letter grading.

M119E. Archaeology of Egypt and Sudan. (4) (Same as Ancient Near East M105.) Lecture, two hours; laboratory, three hours. Ancient Egypt is well known for iconic archaeological sites such as Giza, Memphis and Tombs of Tutankhamun. From these and thousands of less well-known sites, enormous variety of archaeological information can be gained. Through discussion of particular archaeological themes, regions, or sites, examination of methods of prehistoric and historic archaeology and how archaeological information contributes to understanding of social, political, and religious history. Background provided for development of human societies — finding resources, data gathering, analysis, interpretation, presentation, and training on how to embark on research in this field. Computer laboratory component included in which students are introduced to and presented in time map. P/ NP or letter grading.

119P. Cities Past and Present. (4) Lecture, three hours. Enforced requisite: course 8 or 9. Examination of ancient and modern cities to evaluate how urban form develops and continues to thrive as human social phenomenon. Contemporary observations compared with archaeological case studies, including South America, Asia, Africa, and ancient Near East. Letter grading.

Biological Anthropology

120. Survey of Biological Anthropology. (4) Lecture, three hours. Enforced requisite: course 7. Limited to majors and graduate anthropology students. Survey of biological anthropology includes all major subareas. Corequisite for course biological field. P/ NP or letter grading.

121A. Primate Fossil Record. (4) Lecture, three hours. Enforced requisite: course 7 or 12. Introduction to method and theory in paleoanthropology. Primate evolution, Cretaceous through Miocene. May be taken independently for credit. P/ NP or letter grading.


121C. Evolution of Genus Homo. (5) Lecture, three hours; discussion, one hour. Enforced requisite: course 7 or 12. Origin and evolution of genus Homo, including archaic sapiens and Neanderthals. Morphology, ecology, and behavior of these groups. Course ends with appearance of modern humans. May be taken independently for credit. P/ NP or letter grading.

121P. Reconstructing Hominid Behavior and Paleocommunities. (4) Seminar, medieval archaeo- logical, ecological, and geological 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, for credit, and theoretical courses in paleoanthropology. Students attend course 12 lectures, plus three-hour seminar per week. P/ NP or letter grading.

122P. Human Osteology. (4) Lecture, three hours; laboratory, four hours. Examination of human skeletal and muscular systems, concerned with both form and function. Students expected to recognize important anatomical landmarks on human skeleton, identify fragmentary bones, and know origins, insertions, and action of major muscles, hands and feet. Enforced requisite: course 12. Students attend course 12 lectures, plus three-hour seminar per week. P/ NP or letter grading.


124. Evolutionary Psychology. (4) Lecture, three hours. Recommended requisite: course 7 or Life Sciences 1. Survey of research in evolutionary psychology. Review of relevant theory in evolution and genetic and emphasizes on empirical studies of modern human behavior from evolutionary perspective, including social behavior, decision making, language, culture, and child development. P/ NP or letter grading.

124P. Evolution of Human Sexual Behavior. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 7 or 12. Examination of human sexual relations and social behavior from evolutionary perspective. Emphasis on theories and evidence for differences between men and women in their patterns of growth, maturation, fertility, mortality, parenting, and relations with members of opposite sex. Letter grading.

M125A. Great Adaptations: Origins of Complexity in Nature. (4) (Formerly numbered 125A.) (Same as Ecology and Evolutionary Biology M171.) Letter, three hours. Enforced requisite: course 7 or Ecology...
and Evolutionary Biology 13 or 120 or Life Sciences 1. Evolution of complex adaptations in nature. Examination of scientific processes underlying natural selection and evolution of adaptation: Darwin's postulates, constraints on adaptation, levels of explanation in biology, methods for identifying adaptations. Evaluation of examples of complex adaptations in nature.

126. Selected Topics in Biological Anthropology. (4) Lecture, three hours. Study of selected topics in biological anthropology. Consult Schedule of Classes for topics. May be repeated for credit with topic change. P/NP or letter grading.


128A. Primate Behavior Nonhuman to Human. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Review of primate behavior as known from laboratory and field studies. Theoretical issues of animal behavior, with special reference to nonhuman primates. Discussion of human behavior as product of such evolutionary processes. P/NP or letter grading.


129Q. Paleopathology. (4) Lecture, three hours. Designed for juniors/seniors. Evidence of disease and trauma, as preserved in skeletal remains of ancient and modern human populations. Discussions of medical procedures (trepanation), health status, ethnic mutilation (cranial deformation, footbinding), cannibalism, and sacrifice and roles such activities have played in human societies. Letter grading.

Cultural Anthropology

130. Study of Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 9 or Sociology M124A or M124B. Twenty-first-century elaboration and development of concept of culture. Examination of five major paradigms: culture as human capacity, as patterns and products of behavior, as systems of meaning and cognition, as generative structure and semiotic system, as component in social action and reality construction. (Core course for cultural field.) P/NP or letter grading.

131. Culture: What Makes It All Work. (4) Lecture, three hours. Preparation: two lower division social sciences courses (may be from different departments). Examination of some basic questions addressed by anthropologists in their study of what is meant by culture. Consideration of theories of culture and evolutionary origins of culture. Review of new analytic methods that allow students to begin to do quasi-experimental studies of nature of culture and introduction to multiagent simulation as framework for modeling how culture can be both supra-organic and embedded in minds of culture bearers. P/NP or letter grading.

133F. Anthropology of Food. (4) Lecture, three hours. Recommended requisite: course 9. Production, consumption, and distribution of food, with particular emphasis on culture of food. Food is wonderful means to learn about range of topics: ecological history, class, poverty, hunger, ethnicity, nationalism, capitalism, gender, race, and sexuality. Letter grading.

133P. Visual Anthropology: Documentary Photography. (4) Lecture, four hours. Photographs in anthropology serve many purposes: as primary data, illustration of ideas, as a means to compare and contrast between art photography and ethnographic documentation, role of museum photographs, and even works of art. Topics include relationships between subject and text, text and performance, between art photography and ethnographic photography, and role of museum photographs and caption, social practice of taking pictures, and case study of photographs Middle East and North Africa. P/NP or letter grading.

133Q. Symbolic Systems. (4) Lecture, three hours. Designed for juniors/seniors. Analysis of anthropological research and theory on cultural systems of thought, behavior, and emotion expressed in symbolic mode (as distinguished from discursive, instrumental, and causal modes). Methods for study of symbolic meaning, including experiential approach. P/NP or letter grading.


133S. Ethnomathematics and Anthropology of Number. (4) Lecture, three hours. Counting systems such as one, two, three and many or modern equivalent of one, two, three, infinity are widespread in human societies. Counting things is important part of everything we do. This course will be the first of a three-semester approach to study of language, with emphasis on early foundations and historical development of number. Topics include study of numerical systems, and modern human populations. Discussions of medi-cal procedures (trepanation), health status, ethnic mutilation (cranial deformation, footbinding), cannibalism, and sacrifice and roles such activities have played in human societies. Letter grading.


135A-135B. Introduction to Psychological Anthropology. (4-5) P/NP or letter grading.

135A. Historical Development of Field. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 9. Limited to juniors/seniors. Survey of field of psychological anthropology, with emphasis on early foundations and historical development of field. Topics include study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

135B. Current Topics and Research. (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Survey of field of psychological anthropology, with emphasis on early foundations and historical development of field. Topics include study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.


135T. Psychoanalysis and Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of modern anthropological concepts of psychoanalysis, considering both theory and method. History of and current developments in psychoanalysis; anthropological critiques of psychoanalytic theory and method, toward cross-cultural psychoanalytic approach. Letter grade or P/NP.

136Q. Laboratory for Naturalistic Observations: Developing Skills and Techniques. (4) Laboratory, three hours. Skills of observing and recording behavior in natural settings, with emphasis on field training and practice in observing behavior. Group and individual projects. Discussion of some uses of observations and their implications for research in social sciences. P/NP or letter grading.

137. Selected Topics in Cultural Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in cultural anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. 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 collection and protection in cultural anthropology. Emphasis on techniques, methods, and designs of ethnographic research and how basic observational information is systematized for presentation, analysis, and cross-cultural comparison. Letter grading.

M139P. Fieldwork in Asian American and Pacific Islander Communities. (4) (Same as Asian American Studies M134A.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to identity, culturalism, tourism, and indigenous rights. Field excursions and guest lectures from local community included. Given in Hawai‘i. P/NP or letter grading.

Linguistic Anthropology

M140. Language in Culture. (5) (Same as Linguistics M146.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 33 or Linguistics 20. Study of language as aspect of culture; relation of habitual thought and behavior to language; and language and classification of expression. Holis-tic approach to study of language, with emphasis on relations of linguistic concepts to social, cultural, and political dimensions of biolo-gical, cultural, and social anthropology, as well as archaeology. (Core course for linguistics field.) P/NP or letter grading.

141. Ethnography of Everyday Speak. (5) Lecture, three hours; fieldwork, two hours. Requisite: course 33. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication — description and analysis of situated communicative behavior — and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxe-mic, and kinesic aspects of face-to-face interaction. Letter grading.

142A-142B. Microethnography of Communication. (4-4) Lecture, three hours. Requisite: course M140. Course 142A or Sociology M124A is requisite to course 142B. Students make primary records (sound tape, videocassette, or film) of naturally occurring social interactions that are analyzed in class for interactive tasks, resources, and accomplishments displayed. Labora-tory and fieldwork outside of class and minimal fees to offset costs of equipment, insurance and liability. P/NP or letter grading.

M142R. Culture of Jazz Aesthetics. (4) (Same as Ethnomusicology M130 and World Arts and Cultures M136.) Lecture, three hours. Requisite: course 9 or Ethnomusicology 20A or 20B or 20C or World Arts and Cultures 20. Aesthetics of jazz from point of view of musicians who shaped jazz as art form in 20th century. Listing to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and histori-
cal knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tra- dition. P/NP or letter grading.

143. Field Methods in Linguistic Anthropology. (4) Lecture, three hours. Requisite: course M140. Practice in eliciting linguistic data from informants. Initial focus on phonetic transcription and phonological structures and strategies, followed by attention to morphological, syntactic, and textual analysis. Practice with native speakers of non-Indo-European languages is normally important aspect of student participation. P/NP or letter grading.

C144. Native American Languages and Cultures. (4) Lecture, three hours. Requisite: course 33 or American Indian Studies M10. Introduction and comparative analysis of sociocultural aspects of language use in Native North American Indian speech communities. Specific focus include both micro- and macro-sociocultural topics. Micro-sociocultural topics are comprised of such issues as multilingualism, cultural differences regarding gender, and variation within speech communities (e.g., male and female speech, baby talk, ceremonial speech, etc.). Macro-sociocultural considerations include language and its relationship to language change and language in American Indian education. Concurrently scheduled with course C243P. P/ NP or letter grading.


146. Language and Culture of Polynesia: Past, Present, and Future. (4) Lecture, three hours. Requisite: course 33. Introduction to Polynesian cultures and languages, with particular emphasis on past and present structure of languages and structures of language and cultural structure and language use, verbal art, language socialization strategies, and forms of cultural assimilation 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.

M148W. Talk and Body. (5) (Same as Applied Linguistics M161W and Communication Studies M122W.) Lecture, four hours; discussion, one hour. Enforced preparation: course 33 or English as a Second Language 36. Relationship between language and human body raises host of interesting topics. New approaches to phenomena such as embodiment become possible when body is analyzed, not as isolated entity, but as visible agent whose talk and action are lodged within both processes of human interaction and rich settings where people pursue courses of action that count in their lives. Satisfies Writing II requirement. Letter grading.

149A. Language and Identity. (4) Lecture, three hours. Requisite: course 33. Language as social phenomenon. Introduction to several angles from which language use can be critically examined as integral to nomenon. Letter grading.

149B. Gender and Language in Society. (4) Lecture, three hours; discussion, one hour (when scheduled). 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 Histories 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 themes in social theory, anthropological inquiry, sociolinguistics, and literary studies in lectures to contextualize classic 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 particular, influence not only educational processes and outcomes but also the self-esteem of student populations. Developmental processes and desirable educational outcomes are Letter grading.

M149E. Language Socialization. (4) (Same as Applied Linguistics M125.) Seminar, four hours. Exploration of processes of language learning, and socialization to use language across lifespan, across communities of practice within single society, and across different ethnic and socioeconomic groups. Examination of ways in which verbal interaction between parents and experts are structured linguistically and culturally. Letter grading.

149F. Language and Social Organization through Life Cycle. (4) Lecture, three hours. Requisite: course 33. Examination of forms of participation and talk-in-interaction across various phases of life cycle from birth to old age, using videotaped interactions of naturally occurring activities. How language and interaction varies with respect to age, gender, kinship identity and how interaction order resulting from face-to-face interaction provides building blocks for larger communities that arise from such activities. Letter grading.

149SL. Gender and Language across Communities. (4) Lecture, three hours; discussion, one hour. Requisite: course 33. Examination of how language contribute to expression of gender identities in different social groups and situations. Completion of 20 hours of service learning in community service program coordinated through Center for Community Learning. Active participation in organized service that is conducted in and meets needs of communities. Letter grading.

Social Anthropology


152. Politics: Tribe, State, Nation. (4) Lecture, three hours. Cross-cultural examination of politics and political organization. Law and maintenance of order; corporate groups; ideology. Relations of political institutions to other institutions of society and issues of identity and representation. Letter grading.


153P. Economic Anthropology. (4) Lecture, three hours. Requisite: course 152. Economic anthropological perspectives for interpretation of economic life and institutions. Economic facts to be placed in their larger social, political, and cultural contexts; examination of modes of production, distribution, and consumption of goods and services in their relation to social networks, power structures, and institutions of family, kinship, and class. P/NP or letter grading.


M154Q. Gender Systems: Global. (4) (Same as Gender Studies M154Q.) Lecture, three hours. Recommended preparation: prior anthropology or gender studies courses. Designed for junior/senior social sciences majors. Comparative study of gender systems globally through anthropological active participation in material conditions of women’s lives in world — gender division of labor, relationship of gender to state, and colonialism and resistance movements. P/NP or letter grading.

M155. Women’s Voices: Their Critique of Anthropology of Japan. (4) (Same as Gender Studies M155.) Lecture, three hours. Preparation: introductory sociocultural anthropology course. Anthropology of Japan has long viewed Japanese society as homogeneous whole. Restoration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

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

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

157. Selected Topics in Social Anthropology. (4) Lecture, three hours. Study of selected topics in social anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.


158P. Pastoral Nomads. (4) Lecture, three hours. Requisite: course 9 or 150. Survey of pastoral nomad societies. Consideration of 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.

M158Q. Past Societies and Their Lessons for Our Own Future. (5) (Same as Geography M153 and Honors Collegium M152.) Lecture, two hours; discussion, two hours. Examination of modern and past tribal and band societies (Amazonian Indians, Kalahari San, New Guineans, and others) that met varying fates, as background to examination of how modern state societies are coping or failing to cope with similar issues. P/NP or 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 applica-
tion of anthropology to study of militaries, modern warfare, and large-scale ethnic conflict. Letter grading.

M159P. Constructing Race. (4) (Same as Afro-American Studies M159P and Asian American Studies M169.) Lecture, three hours. Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

Applied Anthropology


M162. Language Endangerment and Linguistic Revitalization. (4) (Same as American Indian Studies M162.) Lecture, three hours; activity, one hour. Requisites: course 33, American Indian Studies M10. Examination of causes and consequences of current worldwide language endangerment and revitalization of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize these languages. Projected loss of as many as half of world's languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideological change, and language shift away from smaller indigenous and tribal languages. Since loss of such languages means both reduction of cultural as well as linguistic diversity, many affected communities have engaged in various language renewal practices. Examination of some diverse strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy reforms. Evaluation of effectiveness of these measures and of very imagery used to discuss language endangerment. P/NP or letter grading.

163. Selected Topics in Applied Anthropology. (4) Lecture, three hours. Consideration of selected topics in applied anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.


167. Urban Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for junior/senior social sciences majors. Introduction to modern industrial cities and urban life. Examination of notion of urban space in context of social relations by drawing from historical and cross-cultural urban ethnographies. Urban space is created according to needs of capital and actions of urban subjects. Exploration of ways in which class, gender, race, and geography shape or contest perspectives and priorities on urban issues. P/NP or letter grading.

M168. Culture, Illness, and Healing. (4) (Same as Nursing 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, understanding 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.

CM168P. Perspectives on Health of Native North Americans. (4) (Same as American Indian Studies CM168P) Seminar, three hours. Recommended preparation: some knowledge of medical anthropology and/or history of contemporary situation of first peoples of North America. Examination of different perspectives related to health and healthcare of Native North Americans (within present boundaries of 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.

C169R. 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 repatriating human remains and cultural objects to them. Examination of this phenomenon. Concurrently scheduled with course C269R. Letter grading.

Regional Cultures

Africa

171. Sub-Saharan Africa. (4) Lecture, three hours. Issues of ecology and political economy; continuing impacts of colonialism, nationalism, and current challenges for development; changes in social relations. Examination of Africa's significance to development of anthropology as a global science; the history of anthropological fieldwork, and the history of African anthropology. P/NP or letter grading.

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

North America

172A. Native North Americans. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Consideration of diversity of Native American societies north of Mexico, including their origins and development. Particular attention to subsistence systems and their relationship to social institutions and cultural practices, especially religion. Letter grading.

172B. Change and Continuity among Native North Americans. (4) Lecture, three hours. Requisites course 172A. Consideration of tremendous change Native American societies and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confront colonization and its implications. Letter grading.

172R. Cultures of Pueblo Southwest. (4) Lecture, three hours. Survey of ethnographic and ethnographic research of Pueblo Indians (Hopi, Zuni, Tanoan, and Keresan) and their immediate neighbors. Basic information on history, languages, social organization, and traditional cultural systems of these groups. P/NP or letter grading.

Middle America

173Q. Latin American Communities. (4) Lecture, three hours. Overview of social and cultural anthropological small communities in Latin America. Similiarities and contrasts in social organization and interaction described in context of economic, political, and cultural environments. P/NP or letter grading.

South America

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.

Asia

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

175Q. Societies of Central Asia. (4) Lecture, three hours. Overview of culture and society among diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and with framework of recent national integration, kinship, forms of marriage and status of women, religious and social order in Hindu/Buddhist culture contact zones, and current problems of modernization. P/NP or letter grading.

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

175T. Civilizations of East Asia. (4) Lecture, three hours. General anthropological introduction to closely linked civilizations of China, Korea, and Japan, providing comparative analysis of fundamental institutions such as family, state, and religion and assessing effects of urbanization and industrialization. Letter grading.

175U. Cultures of 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 structures of positioning, worldviews, and economic development of out of history of colonialism and war to capitalism; multiple and conflicting linkages of Korean people involving class, gender, family, and nation. P/NP or 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, Hong Kong, Singapore, and mainland China in post-Mao era. Letter grading.

Middle East

176. Culture Area of Middle East. (4) Lecture, three hours. Study of Middle East has suggested many theories as to developmental history of humankind, evolution of human society, birth of monotheism, and origin of agriculture, trade, and cities. Presentation of anthropological material relevant to understanding Middle East as culture area, and Islam as basis of its shared tradition. Letter grading.

Pacific

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

M177P. Ethnic Identity and Ethnic Relations in Hawai‘i. (4) (Same as Asian American Studies M143A.) Lecture, three hours; discussion, one hour. Continuing construction and expression of ethnic identity in...
191HB. Field Methods. (4) Seminar, three hours. Limited to anthropology honors program students. Survey major field methods in anthropology to prepare students to conduct their own field research. Letter grading.

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

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


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

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

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

Graduate Courses

200. Proseminar: Practice of Anthropology. (4) Seminar, three hours. Required of new graduate students. Discussion of anthropology as four-field discipline and interconnections among four major fields. Practice of anthropology as exemplified through facultypresentations of how research is conceived, formulated, and executed; development of individual research proposals. Letter grading.

200P. Cultural Anthropology Field Preparation. (4) Seminar, three hours. High quality 200 seminar. 200 course recommended. Field preparation for summer fieldwork and for research with collections and data. May be repeated for credit. S/U grading.

201A-M201B. Graduate Core Seminars: Archaeology. (4-4) (Same as Archaeology M201A-M201B) Seminar, three hours. Core M201A is required of anthropology students in archaeology field. Seminar discussions based on carefully selected list of 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Core seminars provide students with foundation in breadth of knowledge of professional archaeologists. 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 advisor. 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.
ramnic analysis, zooarchaeology, and 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 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 in Near East, Mesoamerica, and Andes, including early Egyptian, Uruk, Teotihuacan, classic Maya, Wari, and Tiahuanaco, 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 (6 units) or 50 or more hours (12 units). Off-campus field archaeology course offered in regular session. Permission required. Seminar 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.

M216. Topics in Asian Archaeology. (4) (Same as Art History M262A.) Lecture, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religion, archaeological reflections of commerce and trade and their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural influence." Letter grading.

217. Explanation of Societal Change. (4) Lecture, three hours. Examination of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general systems theory, ecology, and 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 material culture and space enable assessment of social dynamics as cities are constructed and lived in by variety of different ethnic, economic, ritual, and political groups. Letter grading.

218. Style and Ethnicity. (4) Seminar, three hours. How stylistic variation in material culture informs on and mediates shape, boundaries, and interrelationships of ethnicity. Approach is generally toward archaeologists 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 sociocultural organization and recognition of complex middle-range societies in 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.


222. Graduate Core Seminar in Biological Anthropology in Review. (8) Seminar, three hours. Enforced corequisite: attendance, but not enrollment, in course 7 lecture. Required of all graduate anthropology students who need foundational background in biological anthropology. Seminar discussion based on basic evolutionary principles, behavior of nonhuman primates, hominid evolutionary history, and contemporary human variation. Letter grading.

Cultural Anthropology


230Q. Theories of Culture. (4) Lecture, three hours. Exploration of aspects within culture theory: emergence of culture (analogues of production, discovery of culture, and “cultural capital” and cultural change). Investigation of production of culture and transformation 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. Requisite: 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 language (as opposed to causal one) are 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. Requisite: course 133R. Selected questions concerning visual aesthetic phenomena in their relationships with sociocultural context examined in depth. May be repeated for credit. S/U or letter grading.

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

235. Individual in Culture. (4) Seminar, three hours. Whether and how culture and personality 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 World. (4) Seminar, three hours. Whether and how culture and thought shape each other is 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.

234T. Anthropological Perspectives on Human Nature. (2 to 4) (Same as Psychiatry M282.) Seminar, three hours. Examination of how sociocultural and political dynamics shape perceptions of and understandings about human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.


236P. Cross-Cultural Studies of Socialization and Children. (4) (Same as Psychiatry M284.) Lecture, two hours; discussion, one hour. Examination of socialization and child training. Methods, ethno graphic data, and theoretical orientations. Emphasis on current research. S/U or letter grading.

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

239T. 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


241. Topics in Linguistic Anthropology. (4) (Same as Linguistics M241.) Seminar, three hours. Problems in relations of language, culture, and society. May be repeated for credit. S/U or letter grading.

242. Ethnography of Communication. (4) (Same as Applied Linguistics 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 relationship of ethnography of communication to such disciplines as anthropology, linguistics, and sociology. Topical foci include style and strategy, speech variation, varieties of noncasual speech genres, and nonverbal communication behavior. S/U or letter grading.

243A. Language Ideologies: Political Economy of Language Beliefs and Practices. (4) Lecture, three hours. Language ideology development and implementation. Fundamental assumptions about speakers’ use of language and communicative practices: (1) speakers’ awareness of these structures and processes and (2)
relationship of this consciousness to speakers’ political economic perspectives and to actual communicative conduct.

C243P. Native American Languages and Cultures. (4) Lecture, three hours; seminar, two hours. Preparation: prior coursework in either anthropology, linguistics, or American Indian studies. Introduction and comparative analysis of sociocultural aspects of language use in Native North American Indian speech communities. Special topics include both micro- and macro-sociolinguistic topics. Micro-sociolinguistic topics are comprised of such issues as multilingualism, different criteria regarding appropriate communicative behavior 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 education. Concurrently scheduled with course C144. S/U or letter grading.

M243Q. Afro-American Sociolinguistics: Black English. (4) (Same as Afro-American Studies M200D.) Lecture, three hours. Basic information on Black American English, one important minority dialect in 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 case studies of Black speech. Students required to participate in consultation with instructor and participate in group discussion. S/U or letter grading.

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 important aspect of student participation. S/U or letter grading.

245. Linguistic and Intracultural Variation. (4) Lecture, three hours. Problem of variation as it impinges on disciplines of anthropology and linguistics. Among objectives of course are: to acknowledge importance of speech variation in anthropological linguistics research, to critically assess broad and representative sample of modern scholarship devoted to study of inter-individual, community; and to evaluate utility and potential applicability of recent linguistic models to anthropological linguistics and anthropological theory. Letter grading.

M246A. Grammar and Discourse. (4) (Same as Applied Linguistics M207.) Seminar, four hours. Requisite: Applied Linguistics C201. Survey of grammar and discourse-based approaches to study of language as meaningful form. Topics include grammatical and indexical categories, referential and social in deixicity, relation of syntax to semantics and pragmatics, markedness, universals, cultural and cognitive implications of language structure and use. S/U or letter grading.

M246B. Grammar and Discourse Practicum. (4) (Same as Applied Linguistics 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. Presentation and analysis of data from range of languages. S/U or letter grading.

M247. Topics in Semantics and Pragmatics. (4) (Same as Applied Linguistics M266.) Seminar, four hours. Requisite: Linguistics C201. 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. Letter grading.


M249A-M249B. Ethnographic Methods in Language, Interaction, and Culture I, II. (4-4) (Same as Applied Linguistics M270A-M270B.) Seminar, four hours. Two-term sequence on ethnographic approaches to recording and analyzing communicative events and practices in their sociocultural context, involving student-initiated fieldwork in community setting. Emphasis on hands-on activities within theoretical frameworks that consider language as social and cultural practice. M249A. Requisite: course M242 or Sociology 244A. 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 analysis in form of conference talk and how to develop analysis into grant or dissertation proposal. S/U or letter grading.


M252P. Gender Systems. (4) (Same as Gender Studies M230P) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideological systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

M253. 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 illustrated through key theoretical works. S/U or letter grading.

M256. 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 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of healing practices via lecture, film, and audiow. Letter grading.

255. Comparative Political Institutions. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

259. Work, Gender, and Race. (4) Seminar, three hours; fieldwork, three hours. Limited to graduate students. Impact of expansion of corporate globalization and neoliberalism in U.S. has been to create shift from economy and occupational stricture in manufacturing to one based on services. Shift has been accompanied by increasing polarization of jobs by class, with stratospheric compensation at top and poverty-level wages at bottom, with loss of middle-income jobs, leaving U.S. as society increasingly split between rich and poor. Examination of these changes and how they affect nature of work and career opportunities of workers in U.S. by gender, race, ethnicity, and immigration status. S/U or letter grading.

Applied Anthropology


M263P. Gender Systems. (4) (Same as Gender Studies M230P) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideological 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 illustrated 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 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of healing practices via lecture, film, and audiow. Letter grading.
287. Poststructural Theories. (Seminar, three hours. Designed for graduate students. Examination of development and application of poststructural theories in anthropology by exploring interdisciplinary connections, especially as they concern concept of culture, narrative, ethnographic writing, reflexivity, politics of representation, historicity, and study of self, identity, and body. S/U or letter grading.)

287P. Anthropology and Colonialism. (Seminar, three hours. Designed for graduate students. Exploration of multifaceted nature of colonialism and its cultural and economic consequences in various geographical areas. Reconsideration of history of anthropology for, as Talal Asad argues, "anthropology emerged as distinctive discipline at beginning of colonial era." S/U or letter grading.)

287Q. Native American Historical Demography. (Same as History M260D.) 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 number of American Indians and other Native Americans, their decline following European contact, and their recent resurgence. Letter grading.

288. Relational Models Theory and Research Design. (Seminar, three hours. Relational models theory (RMT) posits that in all cultures use combinations of just four relational models (RMs) to organize most aspect of intercommunication: communal sharing, social order, family, and sibling. RMT aims to account for what is universal and what varies across cultures, postulating necessity for cultural complements that specify the kind of relational model operations. Readings may include RMT research in social anthropology, archaeology, social theory, semiotics, linguistics, developmental, cognitive, social, political, moral, clinical, and cultural psychology, neuroscience, evolution, sociology, family studies, philosophy, management, marketing, and consumer psychology, economics, justice, public health, public policy, and international development. Letter grading.)

289. Making Oral Presentations. (Lecture, 1 hour. Lecture 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.)

290. Culture, Brain, and Development Forum. (Seminar, 90 minutes every other week. Interdisciplinary seminar to provide students with exposure to current research in understanding complex relationship between culture, brain, and development. S/U grading.)

291. Culture, Brain, and Development. (Seminar, three hours. Designed for graduate students. Introduction to leading research in areas such as consciousness, emotions, and social behavior. Emphasis on work of leading research teams.)

291P. Readings in Culture, Brain, and Development. (Same as Psychology M291P.) Lecture, 1 hour. Introduction to readings in culture, brain, and development. Letter grading.

292. Poststructural Theories. (Seminar, three hours. Designed for graduate students. Examination of development and application of poststructural theories in anthropology by exploring interdisciplinary connections, especially as they concern concept of culture, narrative, ethnographic writing, reflexivity, politics of representation, historicity, and study of self, identity, and body. S/U or letter grading.)

293. Culture, Brain, and Development Forum. (Seminar, 90 minutes every other week. Interdisciplinary seminar to provide students with exposure to current research in understanding complex relationship between culture, brain, and development. S/U grading.)

293P. Readings in Culture, Brain, and Development. (Same as Psychology M293P.) Lecture, 1 hour. Introduction to readings in culture, brain, and development. Letter grading.

294. Human Complex Systems Forum. (Seminar, 90 minutes every other week. Interdisciplinary seminar to provide students with exposure to current research in understanding complex relationship between culture, brain, and development. S/U grading.)

295. Culture of Intersubjectivity. (Seminar, three hours. Enforced requisites: courses 203A, 203B, and 203C, or 204. Introduction to notion of intersubjectivity and its relevance for anthropological research. Exploration of problem of intersubjectivity in its existential, semantic, and linguistic dimensions. Key topics include
intentionality, consciousness, empathy, temporality, agency, experience, and embodiment. S/U or letter grading.


M295S. Interdisciplinary Relationship Science. (4) (Same as Education M297, Psychology M236, and Sociology M270.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of understanding biological, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

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 teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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

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


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 or occasionally take no other coursework. S/U grading.
A 2.0 grade-point average in courses for the major is required.

**Preparation for the Major**

*Required: Applied Linguistics 10 or 10W, two courses from 20, 30 (or 30W), 40 (or 40W), Anthropology 33, and Psychology 10; Linguistics 20; and completion of the equivalent of the sixth term of one foreign language.*

Students who complete an advanced upper division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth term of work in German).

**Transfer Students**

Transfer applicants to the Applied Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of one foreign language, one introduction to linguistics course, one introduction to psychology course, one introduction to linguistic anthropology course, and one introduction to sociology course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admitr.htm for up-to-date information regarding transfer selection for admission.

**The Major**


Applied Linguistics 121SL, M165SL, M172SL, and C175 serve as capstone courses. Courses designated as both service learning and capstone courses may be applied toward both the service learning and capstone requirements. Service learning and capstone courses may not be taken during the freshman or sophomore year. No more than two courses from 195, 197, 198, and 199 may be applied toward the major.

**Honors Program**

Honors in applied linguistics are awarded at graduation to those students who have completed all preparation courses and requirements for the major with an overall grade-point average of 3.5 or better and who have received a grade of A in Applied Linguistics 198 or 199.

**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 Rolle 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 M194 and six courses from the following, with at least one course from each group:


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

No more than two upper division elective courses may be applied toward both this minor and a major or minor in another department or program.

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

**Language Teaching Minor**

*The Language Teaching minor provides students with an overview of current pedagogical theories and practices in language teaching; the experience of observing the language acquisition process both in and out of the classroom; a supervised practicum experience in a variety of language classroom settings; and an opportunity to reflect on the interaction of theory and practice in language teaching.*

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 undergraduate adviser.

**Required Lower Division Course (5 units):**

Linguistics 20 with a grade of C or better.

**Required Upper Division Courses (32 units):**

Eight courses as follows: one from Applied Linguistics 101, 101W, or 102W; C110, C116, C118B; and a minimum of four elective courses from C111, C112, C113, C114, C115A, C117, C118A, C153, C155, C157, M161W, M165SL, English 113A, Indo-European Studies M150 (or Linguistics M150), Linguistics 130, C140, 175.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval; consult the minor adviser before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better. 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.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Graduate Council of the UCLA Academic Senate voted to suspend admissions to the Applied Linguistics M.A., C.Phil., and Ph.D. degrees effective Fall Quarter 2012. Students currently in the degree programs are not affected by the admissions suspension.

The Graduate Council also voted to temporarily rescind the admissions suspension for the C.Phil. and Ph.D. degrees effective Fall Quarter 2013.

The Department of Applied Linguistics offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Applied Linguistics. A Teaching English as a Second/Foreign Language Certificate is also offered; however, admissions were suspended as of Spring Quarter 2010.

**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 1C. Course 2A is enforced requisite to 2B, which is enforced requisite to 2C. P/NP or letter grading.

4. Conversational Swahili. (1) Seminar, one hour. Enforced requisites: courses 1A, 1B. Practice in Swahili conversation on topics of general interest, including east African current events, for Swahili students at intermediate level. May be repeated for credit. P/NP grading.

5. Building Careers through Knowledge of Africa. (1) Lecture, one hour. Guest lecturers, representing diverse careers such as academia, business, arts, nonprofits, and religious work, speak about study of Africa and careers they have pursued after studying about Africa in college and/or graduate school. P/NP 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 Bantu languages of South Africa, mutually intelligible with many 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.
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12A-12B-12C. Intermediate Yoruba. (4-4-4) Lecture, four hours. Enforced requisite: course 11C. Course 12A is enforced requisite to 12C. Lecture, which is enforced requisite to 12C. P/NP or letter grading.

14A-14B-14C. Intermediate Tigrinya. (4-4-4) Seminar, four hours. Enforced requisite: course 55. Course 14A is enforced requisite to 14B, which is enforced requisite to 55. Reading, writing, oral, and aural skills at intermediate level. P/NP or letter grading.


16. Intensive Intermediate Swahili. (12) Lecture, 20 hours (eight weeks). Enforced requisite: course 15A or 15B. Enforced requisite: course 25, 29, or 41A. Knowledge of African countries with existing Education Abroad and Summer Travel Study relationships with UCLA (e.g., Ghana, Egypt, Senegal, South Africa, and Tanzania). Emphasis on oral skills and culture inalienable parts of language interaction such as contemporary politics, religion, literature, and performing arts and to gain in-depth understanding of Nigeria's diversity of languages and cultures, with focus on four major languages: Hausa, Igbo, Yoruba, and Nigerian Pidgin English. P/NP or letter grading.

17. Intensive Elementary Zulu. (12) Lecture, 20 hours (eight weeks). 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.

18. Intensive Intermediate Zulu. (12) Lecture, 20 hours (eight weeks). Enforced requisite: course 7C or 17. Enforced requisite: course 25, 29, or 41A. Knowledge of African countries with existing Education Abroad and Summer Travel Study relationships with UCLA (e.g., Ghana, Egypt, Senegal, South Africa, and Tanzania). Emphasis on oral skills and culture inalienable parts of language interaction such as contemporary politics, religion, literature, and performing arts and to gain in-depth understanding of Nigeria's diversity of languages and cultures, with focus on four major languages: Hausa, Igbo, Yoruba, and Nigerian Pidgin English. P/NP or letter grading.


20. Crash Course in Swahili for Volunteers. (2) Seminar, ten hours. Preparation for students about to travel to East Africa for volunteer or other work experience. Students learn to interact with speakers of Swahili in most predictable contexts by asking and answering questions. Reading of simple texts and understanding of short instructions and descriptions in standard and non-standard Swahili. P/NP or letter grading.

21. Variable Topics in Elementary and Intermediate Studies in African Languages. (1 to 6) Seminar, five hours. Instruction at elementary or intermediate level, based on needs of students, in any language for which appropriate facilities are available. Those taught in past included Akan, Efik, Ewe, Fula, Igbo, Lingala, Luganda, and Xhosa. May be repeated for credit. Letter grading.

Upper Division Courses

103A-103B-103C. Advanced Swahili. (4-4-4) Lecture, four hours. Requisite: course 2C. Course 103A is requisite to 103B, which is requisite to 103C. Readings in Swahili literature and the contemporary press. Discussions mainly in Swahili. P/NP or letter grading.

109A-109B-109C. Advanced Zulu. (4-4-4) Lecture, five hours. Requisite: course 8C. Course 109A is requisite to 109B, which is requisite to 109C. Readings in Zulu literature and the contemporary press. Discussions mainly in Zulu. P/NP or letter grading.

123A-123B-123C. Advanced Yoruba. (4-4-4) Lecture, four hours. Requisite: course 12C. Course 123A is requisite to 123B, which is requisite to 123C. Readings in Yoruba literature and contemporary press. Discussions mainly in Yoruba. P/NP or letter grading.

133A-133B-133C. Advanced Bambara. (4-4-4) Lecture, four hours. Requisite: course 32C. Course 133A is requisite to 133B, which is requisite to 133C. Readings in Bambara literature and the contemporary press. Discussions mainly in Bambara. P/NP or letter grading.

143A-143B-143C. Advanced Hausa. (4-4-4) Lecture, four hours. Requisite: course 42C. Course 143A is requisite to 143B, which is requisite to 143C. Readings in Hausa literature and the contemporary press. Discussions mainly in Hausa. P/NP or letter grading.

150A-150B. African Literature in English Translation. (4-4) Lecture, four hours. Narrative and didactic prose and poetry of sub-Saharan Africa and written prose and poetry of South Africa. P/NP or letter grading.

153A-153B-153C. Advanced Amharic. (4-4-4) Lecture, five hours (15 hours for intensive course). Requisite: course 52C. Course 153A is requisite to 153B, which is requisite to 153C. Readings in Amharic literature and the contemporary press. Discussions mainly in Amharic. P/NP (undergraduates), S/U (graduates), or letter grading.


171. Language in South Africa: Histories, Cultures, Politics. (4) Lecture, three hours. Recommended prerequisite: course 5A. Knowledge of African languages not required. Introduction to South Africa centered around language, using variety of disciplinary perspectives as lenses to examine varied landscape of South Africa's languages. What does South Africa's multilingual past and present tell us about culture and politics? To what extent does language inform volatile debates about race, sexuality, economics, and healthcare of those debates matter? In keeping with multilingual dynamics of South African society, course is based on multiple forms of information and requires multiple levels of interaction. P/NP or letter grading.

172. Languages and Cultures of Nigeria. (4) Lecture, two hours; discussion, one hour. Recommended prerequisite: course 11A, 25, 29, or 41A. Knowledge of African languages not required. Introduction to Nigeria's entered around language, how language shape ethnic identities in Nigeria (one of Africa's most multilingual nations) and Nigerian diaspora? Analysis of historical, cultural, political, and linguistic circumstances to allow students learn to interact with speakers of Shwili in most predictable contexts by asking and answering questions. Reading of simple texts and understanding of short instructions and descriptions in standard and non-standard Swahili. P/NP or letter grading.

173. Preparing to Study Abroad in Africa. (4) Lecture, three hours; discussion, one hour. Recommended preparation: one year of one African language. Development of skills, perspectives, and practical knowledge about living and studying abroad, with particular reference to Africa and greater emphasis on those African countries with existing Education Abroad and Summer Travel Study relationships with UCLA (e.g., Ghana, Egypt, Senegal, South Africa, and Tanzania). Emphasis on oral skills and culture inalienable parts of language interaction such as contemporary politics, religion, literature, and performing arts and to gain in-depth understanding of Nigeria's diversity of languages and cultures, with focus on four major languages: Hausa, Igbo, Yoruba, and Nigerian Pidgin English. P/NP 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.

Applied Linguistics

Lower Division Courses

10. Language in Action: Perspectives from Applied Linguistics. (5) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 30. Introduction to rich variety of topics, approaches, research, and resources in interdisciplinary field of applied linguistics as it is practiced at UCLA. Series of presentations by various faculty members whose work is in those areas. Introduction to various ways language works in real life and how this can be described and studied in systematic ways; designed to teach students to write effectively. Letter grading.

10W. Language in Action: Perspectives from Applied Linguistics. (5) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 40W or former course M40 or M40W. Introduction to language from sociological perspective of gender. Use of relevant linguistic concepts such as turn-taking and repair as resources for analyzing second language interaction. Examination of how culture, ethnicity, and ownership of language are made relevant in everyday life. Discussion of second language interaction in wide range of pedagogical settings and examination of heritage language interaction when relevant. Letter grading.

108GE. Sophomore Seminar: Special Topics in Applied Linguistics. (5) Seminar, three hours. Enforced requisite: course 40 or 40W. Designed for sophomores/juniors. Exploration of aspects of [topic in critical areas of interest through readings, discussions, research, and fieldwork. P/NP or letter grading.

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 instruction. Focus on analysis of audio and video recordings of talk in variety of natural settings. P/NP or letter grading.

101. Introduction to Language Learning and Language Teaching. (5) Lecture, four hours. 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. Letter grading.

101W. Introduction to Language Learning and Language Teaching. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of learning via examination of second language acquisition. All normal children acquiring their first language (i.e., first language acquisition is ubiquitous). Success in second language acquisition is radically variable, and many learners, in spite of substantial opportunity and ability, never achieve proficiency that of native speakers. Examination of interaction of emotion and cognition and nature of aptitude and motivation in learning. Primary vehicle for investigation to be autobiographies of second language learners. Satisfies Writing II requirement. Letter grading.

102W. Nature of Learning. (5) Lecture, four hours; discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of learning via examination of second language acquisition. All normal children acquiring their first language (i.e., first language acquisition is ubiquitous). Success in second language acquisition is radically variable, and many learners, in spite of substantial opportunity and ability, never achieve proficiency that of native speakers. Examination of interaction of emotion and cognition and nature of aptitude and motivation in learning. Primary vehicle for investigation to be autobiographies of second language learners. Satisfies Writing II requirement. Letter grading.


C111. Writing for Second/Foreign/Heritage Language Education. (4) Lecture, four hours. Requisite: C110 Survey of theoretical and methodological issues related to second/heritage language written discourse and composition for second/heritage language writers, including critical examina-
tion of classroom research and overview of issues in evaluating and responding to written text. Concurrently scheduled with course C116. P/NP or letter grading.

112SL Teaching Reading in Second/Foreign/Heritage Language Education. (3) Lecture, four hours; laboratory, two hours. Designed for second/foreign/heritage language teachers and teachers-in-training, with an emphasis on the application of knowledge to second/foreign/heritage language teaching. May be concurrently scheduled with course C112. Letter grading.


115SL. Phonetics for Language Education and Service Learning. (5) Lecture, four hours; fieldwork, four hours. Designed to give overview of phonetic features of North American English that relate to teaching of English as a second/foreign/heritage language. Examination of (1) segmental and suprasegmental elements of NAE, and (2) how English sound system contrasts with sound systems of other languages, (3) activities for teaching pronunciation, and (4) current materials for teaching pronunciation (textbooks, videotapes, Internet resources). Students gain experience in teaching pronunciation while providing valuable and meaningful service to community partners who want help with oral components of English as a second language. P/NP or letter grading.

114. Listening and Speaking for Second/Foreign/Heritage Language Education. (4) Lecture, four hours. Requisite: courses 111W or C110. Survey of theoretical and methodological issues related to second/foreign/heritage language spoken discourse, including critical examination of research paradigms and classroom materials. Concurrently scheduled with course C214. P/NP or letter grading.

115A. Media for Second/Foreign/Heritage Language Education. (4) Lecture, four hours. Requisite: courses 111W or C110. Rationale and pedagogical application of modern and traditional techniques to second/foreign/heritage language classroom. Training in standard classroom media equipment operation, basic materials preparation, and production techniques, and use of audiovisual materials, with focus on their application to second/foreign/heritage language language instruction. Concurrently scheduled with course C215A. P/NP or letter grading.

115B. Computer-Enhanced Language Teaching and Learning. (4) Lecture, four hours. Requisite: courses 111W or C110. Designed for students interested in computer-enhanced language learning in second/foreign/heritage language environments. Web-based teaching (basics of creating and maintaining class websites), designing computer-enhanced teaching materials (e.g., PowerPoint presentations), managing classroom data (e.g., Excel grade calculation), and creating electronic teaching portfolios, with focus on pedagogical rationale for classroom instruction and on professionalizing current second/foreign/heritage language teaching methods through application of computer technology. Project-based seminar to encourage participants to develop materials, refine their instruction, and create their own curricular materials. Concurrently scheduled with course C215B. Letter grading.


117SL. Teaching Literature in Language Education through Service Learning. (5) Lecture, four hours; seminar, three hours; fieldwork, two hours. Designed for the purposes of selecting, evaluating, and using literary works in second/foreign/heritage language settings. Students tutor foreign language and ESL students at selected service learning community partner sites and actively reflect on, analyze, and discuss ways in which they used skills and ideas presented in class and readings. Students will be expected to reflect on, analyze, and make suggestions to one another regarding their service to the community partners who wish to share their experiences to course material and ensure meaningful service to community partners. P/NP or letter grading.

118A. Fundamentals of Second/Foreign/Heritage Language Teaching. (4) Seminar, four hours. Requisite: course 111W or C110. Designed for student teachers in ESL/EFL/heritage language teaching. In-depth examination of decision-making process underlying planning and implementation of lessons. Provides structured environment in which to hone fundamental teaching skills such as conducting warm-up activities, managing student dynamics, eliciting student contributions, correcting errors, sequencing lesson components, and transitioning between them. Concurrently scheduled with course C218A. P/NP or letter grading.

118B. Second/Foreign/Heritage Language Teaching Practicum. (4) Seminar, three hours; fieldwork, four hours. Requisites: courses 111W or C110, 1116. Theoretical and practical concerns regarding second/foreign/heritage language teaching, with emphasis on fieldwork experiences and grounding of solutions to problems faced in current research in language education and language pedagogy. Concurrently scheduled with course C218B. P/NP or letter grading.

119A-C. Current Issues in Second/Foreign/Heritage Language Education. (11) Seminar, four hours; fieldwork, four hours. Concurrently scheduled with course 111W or C110. Specialized topics in language education. Emphasis varies according to current topics. Concurrently scheduled with course C219A-C219B. P/NP or letter grading.

119A. Seminar, four hours; C119B, two hours. Concurrently scheduled with course C221. P/NP or letter grading.

M121SL. Oral History: Latino New Immigrant Youth. (5) Formerly numbered 1212SL. (Same as Chicana and Chicano Studies M121SL.) Seminar, three hours; tutoring, two and one-half hours. Theory, methodology, and practice of oral history, together with background information on Latino immigration to U.S. Readings include oral histories of Latino immigrants, for current and intended teaching settings/populations. Concurrently scheduled with course C212B. P/NP or letter grading.

M125. Language Socialization. (4) (Same as Anthropology M125E.) Seminar, four hours. Exploration of process of socialization through language, and socialization to use language across lifespans, across communities of practice within single society, and across different ethnic and socioeconomic groups. Examination of ways in which verbal interaction between novices and experts is structured linguistically and culturally. Letter grading.


CM128. Teaching and Learning of Heritage Languages. (4) (Same as Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLLs) regarding teaching methods and materials; diagnostic testing and placement; use of audiovisuals in the springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM292. P/NP or letter grading.


C155. Foundations of Language Acquisition. (4) Seminar, four hours. Requisite: Linguistics 20. Introduction to theoretical foundations of 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, cognitive, and neurobiological factors that affect ultimate success of learner. Concurrently scheduled with course C202. Letter grading.


M161W. Talk and Body. (5) (Same as Anthropology M148W and Communication Studies M123W.) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Relationship between language and human body raises host of interesting topics. New approaches to phenomena such as embodiment become possible when body is analyzed, not as isolated entity, but as visible agent whose talk and action are lodged within both processes of human interaction and social settings where people pursue consistent action that count in their lives. Satisfies Writing II requirement. Letter grading.

M165SL. Taking It to Street: Spanish in Community. (5) (Same as Spanish M165SL.) Seminar, three hours; fieldwork, two to six hours. Requisite: Spanish 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish language classes in community settings. Students required to spend minimum of eight to 10 hours per week at agreed-on site in Latino community. P/NP or letter grading.

170. 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 social and cultural practice. Letter grading.

M172SL. Latinos, Linguistics, and Literacy. (5) (Same as Chicana and Chicano Studies M170SL, Honors College M128SL, and Spanish M170.) Seminar, four hours; field project, four to six hours. Recommended requisite: Spanish 100A. In-depth study of various topics related to literacy, including different definitions of literacy for adult preliterate, literacy and gender, approaches to literacy (whole language, phonics, Freire’s liberation pedagogy), history of writing systems, phoneme as basis for alphabetic writing, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

C175. Critical Approaches to Multilingualism. (5) Seminar, four hours. Examination of how identities and social relationships are defined through language in multilingual societies, with focus on how they have been and are constructed within the communities that have experienced colonialism. Assessment of effects of colonial and postcolonial language politics (policies and ideologies) in verbal arts, media, education, gender, and everyday conversation. How might critical applied linguistics in general, and postcolonial theory in particular, help to better understand politics of language use in multilingual contexts? Concurrently scheduled with course C215. P/NP or letter grading.

M179. Language Politics and Policies in U.S.: Comparative History. (4) (Same as Chicana and Chicano Studies M179.) Lecture, four hours. Historical survey of language policies and language groups in 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 schooling, administration of government, justice, and workplace. P/NP or letter grading.

195. Community Internships in Applied Linguistics and TESL. (5) Tutorial, one hour; fieldwork, 10 hours. Limited to juniors/seniors. Internship in sup­ervised setting in community agency or business. Students, under the direct supervision of a faculty instructor and provid­er journal of their experience. Final research paper required. May be repeated for credit. Individual contract required. May be repeated for credit. Individual contract required. Letter grading.


198. Honors Research in Applied Linguistics and TESL. (4) Tutorial, four hours. Limited to juniors/se­niors. In-depth examination of honors thesis or research project under direct supervision of faculty member. May be repeated for credit. Individual con­tract required. Letter grading.


Graduate Courses

200. Research in Applied Linguistics. (4) Seminar, four hours. Requisites: courses C201, C202, C204, M208 or M206, or M209 or C212 or C215 of one current re­search area in applied linguistics (language assess­ment, language acquisition, discourse/grammar analy­sis), all M.A. students prepare and submit viable re­search proposal for M.A. thesis. Letter grading.


C202. 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, cogni­tive, and neurobiological factors that affect ultimate success of learner. Concurrently scheduled with course C215. Letter grading.


M206. Social Foundations of Language. (4) (Same as Anthropology M240.) Seminar, four hours. Re­quisite: Linguistics 20. Basic grounding in sociolinguistic theory and methodology. Introduction to current is­sues in study of tested behavior, including various ways scholars visualize relation between language and social context. S/U or letter grading.

M207. Ethnography of Communication. (4) (Same as Anthropology M242.) Lecture, three hours. De­signated as an introduction to ethnography and 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, varieties of noncasual speech genres, languages and ethnicity, and nonverbal communication behavior. S/U or letter grading.

208. Foundations of Discourse Analysis. (4) Semi­nar, four hours. Survey course to introduce basic te­nets of discourse analysis, including discourse analy­sis, power, syntax, planning, discourse, conversational analysis, analysis of speech events, unequal power discourse, and analysis of classroom discourse. Letter grading.

209. Introduction to Doctoral Studies in Applied Linguistics. (4) Seminar, four hours. Limited to Ph.D. students. Broad overview of fundamental and current philosophical issues in field of applied linguistics. Top­ics include epistemology for applied linguistics, nature of language, symbolic and physical worlds and caus­ality in applied linguistics research, critical applied linguistics, and approaches and methodologies for re­search in applied linguistics. Discussion of illustrative research studies in applied linguistics. Letter grading.

C210. Methodology for Second/Foreign/Heritage Language Education. (4) Lecture, four hours. Requi­sites: course C202, Linguistics 20. Survey of theory and practice in designing second/foreign/ heritage languages, including (1) past and present methods used to teach second/foreign/heritage languages, (2) cur­rent theory and practice underlying skills-based in­struction and integrated approaches, (3) factors that affect second language acquisition and learning. De­velopment of knowledge base in and rational basis for design, development, implementation, and evaluation of second/foreign/heritage language programs. Con­currently scheduled with course C110. S/U or letter grading.

C211. Writing for Second/Foreign/Heritage Lan­guage Education. (4) Lecture, four hours. Requisite: courses C101W or C110. Survey of the theoretical and methodological issues related to second/heritage language written discourse and composition for second/ heritage 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.

C212. Reading for Second/Foreign/Heritage Lan­guage Education. (4) Lecture, four hours. Requisite: course C210. Survey of theoretical and methodologi­cal issues related to second/foreign/heritage lan­guage reading, including critical examination of read­ing research and evaluation of research paradigms and classroom materials. Concurrently scheduled with course C112. Additional assignments required of graduate students. S/U or letter grading.


C215A. Media for Second/Foreign/Heritage Lan­guage Education. (4) Lecture, four hours. Requisite: course C210. Survey of theoretical and methodologi­cal issues related to second/foreign/heritage lan­guage spoken language discourse, including critical examination of research paradigms and class­room materials. Concurrently scheduled with course C114. S/U or letter grading.

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dard classroom media equipment operation, basic materials preparation, and production techniques, and review available materials and texts on their application to second/foreign/heritage language instruction. Concurrently scheduled with course C115A. S/U or letter grading.


C223. Literature in Second/Foreign/Heritage Language Education. (4) Seminar, four hours. Enforced requisite: course C210. Seminar designed to explore current issues in language education research. Project-based seminar to encourage participants to develop materials, either individually or collaboratively, for their current or intended teaching settings/populations. Concurrently scheduled with course C215B. Letter grading.


C218A. Fundamentals of Second/Foreign/Heritage Language Teaching. (4) Seminar, four hours. Requisite: course C210. Designed for students interested in microcomponents of effective second/foreign/heritage language teaching. In-depth examination of decision-making process underlying planning and implementation of lessons. Provides structured environment in which to hone fundamental teaching skills such as conducting warm-up activities, managing student dynamics, eliciting student contributions, correcting errors, sequencing lesson components, and strategic language use. Concurrently scheduled with course C118A. S/U or letter grading.

C218B. Second/Foreign/Heritage Language Teaching Practicum. (4) Seminar, three hours; fieldwork, four hours. Requisites: courses C210, C216. Theoretical and practical concerns regarding second/foreign/heritage language teaching, with emphasis on fieldwork experiences and grounding of solutions to problems faced in current research in language education and language pedagogy. Concurrently scheduled with course C118B. S/U or letter grading.

C219A-C219B. Current Issues in Second/Foreign/Heritage Language Education. (4-2) Requisite: course C210. Specialized topics in language education. Emphasis varies according to current topics of theoretical concern in field of second/foreign/heritage language education. May be repeated for credit with topic change. Concurrently scheduled with courses C119A-C119B. Additional assignments required of graduate students. S/U or letter grading. C219A. Seminar, four hours; C219B, seminar, two hours.


C221. Experiential Seminar: Second Language Learning. (4) (Formerly numbered 221.) Seminar, four hours. Enforced requisite: course C202. Limited to students who, on the recommendation of their advisor, have demonstrated a particular interest in another language. Concurrently scheduled with course C212. S/U or letter grading.

C222. Discourse-Centered Language Learning. (4) Seminar. Case studies and project-based research seminar on second language learning with emphasis on discourse input (usually in form of video and audio recordings of natural speech) and elements of 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. Letter grading.

C223. Topics in Psycholinguistics. (4) Seminar, four hours. Requisite: course C202. Detailed examination of specialized topics in psycholinguistics. Topics vary from year to year and may include language and cognitive science topics, analysis of bilingual language learning theories and their influence on language teaching. May be repeated for credit with topic change. Letter grading.

C224. Language Acquisition. (4) Same as Anthropology M254.) Seminar, four hours. Requisite: course C206. Exploration of process of socialization through language and socialization to use language across lifespan, across communities of practice within single society, and across different ethnic and socioeconomic groups. Ways in which verbal interaction between novices and experts is structured linguistically and culturally. S/U or letter grading.

C225. Teaching and Learning of Heritage Languages. (4) (Same as Slavic CM214.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographical, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLAL students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLs and HLLs in terms of their linguistic, sociocultural, and educational requirements; teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for literacy instruction; optimization of instruction in mixed-level classrooms. Action research component included. Concurrently scheduled with course C121B. S/U or letter grading.

C229. Current Issues in Language Acquisition. (4) Seminar, four hours. Requisite: course C202. Designed to explore current issues in language acquisition from both theoretical and applied research perspectives and to provide actual experience in addressing current topic. Specific topics vary according to trends in field. May be repeated for credit with topic change. Letter grading.


C231. Crosslinguistic Topics in Language Acquisition. (4) Seminar, four hours. Requisite: course C220. Advanced seminar on language acquisition in which one particular linguistics topic (e.g., development of tense/aspect, reference, subordination, agreement) is pursued from crosslinguistic and cross-disciplinary perspectives. Focus on language-specific versus universal (i.e., crosslinguistically valid) mechanisms of language development. May be repeated for credit with topic change. Letter grading.

C232. Culture, Brain, and Development Forum. (1) (Same as Anthropology M293, Education M285, Neuroscience M293, and Psychology M248.) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding complex relationship between culture, brain, and development. S/U grading.

C233. Culture, Brain, and Development. (4) (Same as Anthropology M293S, Education M286, Neuroscience M294, and Psychology M247.) Seminar, three hours. Designed for graduate students interested in knowledge across different disciplines to understand interrelations of culture, brain, and development, where development includes both human ontogeny and human phylogeny. S/U grading.

C238. 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 toward specific program-relevant product, 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.


C241. Analysis and Use of Language Assessment Data. (4) (Formerly numbered 241.) Seminar, four hours. Enforced requisite: course C204. Collection, analysis, and use of data from language assessment procedures. Topics include collecting feedback, descriptive statistics, qualitative data reduction techniques, item analysis and approaches to estimation of reliability and to validation of data-based interpretations. Project required. Concurrently scheduled with course C141. Letter grading.

C242. Experimental Design and Statistics for Applied Linguistics. (4) Seminar, four hours. Requisite: course C204. Specialized topics of interest to graduate students in applied linguistics, with focus on design and interpretation of research projects in field. Exploration of issues in both quantitative and qualitative investigatory study design, interpretation of findings, and presentation of results. Emphasis varies according to current theoretical methodological trends in field. Project required. Letter grade assigned.

C249. 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 current issues. Specific topics vary according to trends in field. May be repeated for credit with topic change. S/ U or letter grading.

C250. Advanced Seminar: Language Assessment. (4) Seminar, four hours. Requisites: courses C204, 241. Designed to cover application of 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.

C262. Assessment Laboratory. (4) Laboratory, four hours. Collaborative coursework, with focus on specific theoretical and applied issues in development of innovative language assessment procedures for use in real-world settings. Specific projects determined by research being conducted by working group in language assessment activities. Activities include designing and developing measurement instruments, gathering and analyzing data, and interpreting results. May be repeated for credit. S/U or letter grading.
262. Topics in Communicative, Cognitive, and Functional Approaches to Linguistic Analysis. (4) (Same as German M244A.) Seminar, three hours. Req- uisite: German C142 or C238. Readings, discussions, analyses, and validation procedures within sign-based linguistics, cognitive grammar, and discourse-functional approaches to language. Consideration of impact of consciousness theory on theory-based con- formal approaches to synchronic linguistics. Discus- sion of work by Contini-Morava, Diver, Garcia, Gold- berg, Jansen, Lakoff, Langacker, and Verhagen, as well as Bybee, Traugott, Hopper, and others. S/U or letter grading.

263. Crosslinguistic Topics in Functional Gram- mar I: Typology. (4) Seminar, four hours. Survey of partic- ipating courses to typologically coherent sections 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.

264. Crosslinguistic Topics in Functional Gram- mar II: Discourse. (4) Discussion, four hours. Req- uisite: course 263. Crosslinguistic study of discourse function of grammatical devices. Topics include tense/ mood/aspect, word order, and various may be repeated for credit with topic change. S/U or letter grading.

265. Topics in Functional Grammar. (4) Seminar, four hours. Requirement: course C201. Specialized topics in functional grammar of interest to graduate stu- dents in applied linguistics. Emphasis varies according to current topics of theoretical import in field, such as voice, nominal reference, and word order. May be repeated for credit. Letter grading.

266. M266. Topics in Semantics and Pragmatics. (4) (Same as Anthropology M247.) Seminar, four hours. Requirement: course C201. Detailed examination of spe- cialized topics in semantics and pragmatics. Topics vary from year to year and may include metaphor, the- ories of reference and denotation, honorific speech, evidentially, reported speech, etc. May be repeated for credit. Letter grading.

267. Talk and Body. (4) Seminar, four hours. Req- uisite: course M206 or M207 or 208. Investigation of or- ganization of language and embodied action within human interaction. Use of both audio and video re- cordings of human interaction in variety of natural set- tings to examine range of phenomena, including ways in which processes of interaction between speakers and hearers are consequential for detailed organiza- tion of emerging talk, projection, gaze, gesture, particip- ation frameworks, narrative as embodied multi-party activity, integration of semiotic structure in environ- ment within organization of talk-in-interaction, and or- ganization of applied discourse. Student presentation of relevant data in seminar format. Letter grading.

268. Crosslinguistic Research Laboratory. (4) Lab- oratory, four hours. Advanced procedures in data analysis in crosslinguistic research, including critical reading of relevant publications. Students must work towards specific program-relevant product, such as thesis, dissertation proposal, qualifying paper, disserta- tion, research paper, or grant proposal. May be re- peated for credit. S/U or letter grading.

269. Current Issues in Discourse Analysis. (4) Seminar, four hours. Requirement: course M206. Spe- cialized topics in discourse analysis of interest to graduate students in applied linguistics. Emphasis varies according to current topics of theoretical and practical concern in field. May be repeated for credit with topic change. Letter grading.

270A-M270B. Ethnographic Methods in Lan- guage. (4) (Same as Anthropology M249A-M249B.) Seminar, three hours. Two-term sequence on ethnographic approaches to recording and analyzing communicative events and practices in their sociocultural context, involving stu- dent-initiated fieldwork in community setting. Empha- sis on hands-on activities within theoretical frame- works that consider language as social and cultural practice. Corequisite: course M207 or Sociolingu- ism 244A. Devoted to skills related to collecting socially and culturally meaningful data. Letter grading.

270B. Requirement: course M270. Devoted to pro- duction of ethnographic analysis, including how to present analysis in form of conference talk and how to develop analysis into grant or dissertation proposal. S/U or letter grading.

270P. Ethnographic Technologies Laboratory I. (4) (Same as Anthropology M249P) Laboratory, four hours. Seminar/Computer Configuration. Preparation for hands-on mentorship in entering communi- ties, obtaining informed consent, interviewing, note taking, and videorecording verbal interaction. S/U grading.

270Q. Ethnographic Technologies Laboratory II. (4) (Same as Anthropology M249Q) Laboratory, four hours. Corequisite: course M270B or Anthropology M249B. Hands-on mentorship in editing videographic ethnographic footage and analysis in transcript and analysis of verbal interaction, writing grant proposals, and assembling conference presen- tations. S/U grading.


272. Grammar and Discourse. (4) (Same as An-thropology M249.) Seminar, four hours. Requirement: course C201. Survey of grammar- and discourse- based approaches to study of language as meaning- ful form. Topics include grammatical and indexical cate- gories, referential and social indexicity, relation of syntax to semantics and pragmatics, markedness, universals, cultural and cognitive implications of lan- guage structure and use. S/U or letter grading.

273. Grammar and Discourse Practicum. (4) (Same as Anthropology M249B.) Seminar, four hours. Requirement: course M270. Survey of advanced topics in grammar and discourse, including predicates, argu- ments and grammatical relations, noun phrase cate- gories, case marking, verbal categories, topic mark- ing devices, registers and speech varieties, reported speech, genre and text structure in discourse. Pre- sentation and analysis of data from range of languag- es. S/U or letter grading.

274. Advanced Seminar: Contextual Analysis of English Structure. (4) Seminar, four hours. Req- uisite: course C216. Examination of selected words and/or structures in oral and written texts to determine when and why they occur. Study of frequency and distribution of form(s), explanation of meaning and function of form(s). Letter grading.

275. Critical Approaches to Multilingualism. (5) Seminar, four hours. Requirement: four of the following: English, German, French, Italian, Japanese, Spanish, and/or Sociology. Topics range from day-to-day interactions of people who have experienced colonialism. Assessment of effect of colonial and post-colonial language politics (policies and ideologies) in verbal arts, media, educa- tion, government, and everyday conversation. How might critical applied linguistics in general, and post- colonial theory in particular, help to better understand politics of language use in multilingual contexts? Con- currently scheduled with course C175. S/U or letter grading.


278. Linguistics of Translation and Interpretation. (4) Seminar, three hours. Preparation: excellent knowledge of English and one other language. Req- uisite: Linguistics 20. Translation and interpretation are complex activities that occur at intersection of linguis- tic, cognitive, social, and cultural human activities and are becoming increasingly important in globalizing world in which they figure not only in traditional area of literary translation, but in virtually all arenas of cul- tural, social, political, legal, and economic life. Exami- nation of main applied linguistic aspects of translation and interpreting across a variety of theoretical, methodological, and practical perspectives. S/U or letter grading.

279. Functional Grammar Laboratory. (4) Labora- tory, four hours. Fieldwork in a target language. Focus on collection and analysis of data that is naturally occurring, made up by participants and/or their native infor- mants, or adapted in written texts. Students trained to become hypothesis based on observation, to test it by experimenting with sentences and using native input, and generalize from their conclusions. Students pro- vide crosslinguistic correspondences of given phe- nomena and carry out research on discourse-pragmatic problems detected in one or anoth- er language. Emphasis on each student carrying out one particular portion of project in collaboration with and benefiting from critical feedback by fellow stu- dents. Hands-on analysis rather than reading of sec- ondary literature. S/U grading.

280. Current Issues in Applied Linguistics. (4) Seminar, four hours. Specialized topics in applied lin- guistics; current relevance of topics group accord- ing to current topics of theoretical concern in field. May be repeated for credit with topic change. S/U or letter grading.


286. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice person- nel employment as teaching assistant, associate, or fellow. Teaching apprentice will receive guidance and supervision of regular faculty member respon- sible for curriculum and instruction at UCLA. May be re- peated for credit. S/U grading.

287. Applied Linguistics M.A. Colloquium. (4) Seminar, presentation to be arranged. 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. Candi- dates for Ph.D. in Applied Linguistics may also use this course to report on their dissertations. S/U grading.

288. Training and Supervision of Teaching Assis- tants. (2) Seminar, two or more hours. Required of all teaching assistants. Orientation, preparation, and su- pervision of teaching assistants. Various topics, in- cluding effective teaching methods and strategies. May not be applied toward any degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate ad- viser and graduate dean, and host campus instructor, department chair, and School of Education. To record and criti- cal review of current research. May be repeated for credit. S/U grading.

502. Linguistics of Translation and Interpretation. (4) Seminar, three hours. Preparation: excellent knowledge of English and one other language. Req- uisite: Linguistics 20. Translation and interpretation are complex activities that occur at intersection of linguis- tic, cognitive, social, and cultural human activities and are becoming increasingly important in globalizing world in which they figure not only in traditional area of literary translation, but in virtually all arenas of cul- tural, social, political, legal, and economic life. Exami- nation of main applied linguistic aspects of translation and interpreting across a variety of theoretical, methodological, and practical perspectives. S/U or letter grading.
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Lothar von Falkenhhausen, Ph.D. (Art History)
Willeke Z. Wendrich, Ph.D. (Near Eastern Languages and Cultures)

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. Application requirements are especially encouraged from students whose interests may form bridges with disciplines and departments not offering archaeology (e.g., botany, chemistry, geology, mathematics, statistics, and zoology). There are opportunities for participation in a variety of field, laboratory, and computer studies.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Archaeology but does not encourage applicants who seek only an M.A. degree.

Archaeology

Upper Division Courses

C110. Archaeological Materials Identification and Characterization. (4) Lecture, one hour; laboratory, two hours. Laboratory-oriented introduction for archaeologists to identification and quantitative description of solid materials, especially metals, ceramics, and other inorganic and some organic substances. Concurrently scheduled with course C210. P/NP or letter grading.

C120. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Designed for juniors/seniors. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 2-unit course has S/U grading.

C159. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of advisor. Concurrently scheduled with course C259. P/NP or letter grading.

C180. Ancient and Historic Metals: Corrosion, Technology, and Conservation. (6) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloys and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C280. Letter grading.

Graduate Courses

M201A-M201B. Graduate Core Seminars: Archaeology. (4-4) (Same as Anthropology M201A-M201B.) Seminar, three hours. Required of all students. Seminar discussions based on carefully selected list of 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Compulsory core seminars provide students with foundation in breadth of knowledge required of professional archaeologists. 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. Archaeological Research Design. (4) (Same as Ancient Near East M201C.) Seminar, three hours. Requires: courses M201A, M201B. How to design archaeological projects in preparation for M.A. thesis or Ph.D. phase. Students do exploratory research to select subject, then write research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and report weekly on their progress. Preparation of at least two oral progress-report presentations, one on theoretical framework and one on practical aspects of project. Final written research design that incorporates theoretical and practical aspects of research and formulates bridging arguments required. S/U or letter grading.

M205A. Selected Laboratory Topics in Archaeology. (4) (Same as Anthropology M212A.) Lecture, three hours. Designed for graduate students in archaeology and 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 available at times. 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 in a variety of field, laboratory, and computer studies. 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 Near East, Mesopotamia, and Andes, including early Egyptian, Uruk, Teotihuacan, Classic Maya, Wari, and Tiwanaku, with focus on political and economic structures of these societies and on causes of state development and collapse. S/U or letter grading.

C220. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C230. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U grading.

C259. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of advisor. Concurrently scheduled with course C259. P/NP or letter grading.
sion of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C159. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Ancient Near East M265.) Lectures, two hours. Theoretical understanding of depositional processes ("laws") which lead to site formation and of stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with help of specialists. S/U or letter grading.

C280. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian high-tin bronze alloys, bronzes, from Warring States to Tang dynasty, Japanese bronze age Europe, Renaissance Europe, China.

C260. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C169. Letter grading.

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

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

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

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

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

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Adjunct Professor
Alan Lodke, M.Sc.

Adjunct Associate Professors
Roger Sherman, M.Arch.
Kivi S. Sotamaa, M.Arch.

Scope and Objectives
The Department of Architecture and Urban Design at UCLA offers a Bachelor of Arts degree in Architectural Studies and four graduate degree programs tailored to the needs of different groups of students: M.Arch. I, M.Arch. II, M.A., and Ph.D.

The B.A. in Architectural Studies is a two-year program, with focus on the built environment. The curriculum visualizes architecture as a cultural, creative, and technical practice and a discipline with direct social impact. Within the context of a liberal arts education, a finely balanced set of architecture and urban design courses, ranging from the history and theory of design to contemporary building technologies, provides students with a diverse foundation of knowledge in the field of architecture and prepares them for graduate school and/or careers in a wide range of fields.

M.Arch. I is a three-year first professional degree program accredited by the National Architectural Accrediting Board (NAAB). It does not assume any prior background in architecture. Students who do have some prior architecture background (e.g., a four-year undergraduate degree) may also enter the program and may petition to waive certain required courses and substitute more advanced electives in their place. 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.

M.A. and Ph.D. degree programs provide opportunities to pursue research and scholarly work 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.

Undergraduate Study
Architectural Studies B.A.
Admission
Students are admitted for Fall Quarter only. Admission is highly competitive, and only a limited number of students are admitted each year. UCLA students may apply for admission in Fall Quarter of their second year in residence, must have at least a 3.0 cumulative grade-point average, and are required to complete the Preparation for the Major courses, with grades of B or better, before applying for admission. Transfer students must have at least a 3.0 cumulative GPA and are expected to complete the Preparation for the Major courses during their first year in residence. All applicants must submit a statement of interest and a three- to six-page PDF of creative work. Applications are available in the department office to regularly enrolled UCLA students during the previous Fall Quarter. For further information, consult the undergraduate advisor.

Preparation for the Major

The Major
Required: Architecture and Urban Design 121, 122, 123, 131, 132, 133, 141, 142, 143.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. 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. I/Urban Planning M.U.R.P.) is also offered.
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Architecture and Urban Design

Lower Division Courses

1. Introduction to Design. (2) Studio/lecture/field trips, 40 hours. Limited to high school students. Two- to four-week intensive summer course in architectural design, with focus on developing design skills through space making and its representation. Exposure to contemporary architectural practices through studio work, lectures, seminars, field trips, and final demonstration, critique, and exhibition of student work. Offered only as part of Teen Arch Studio summer program. P/NP grading.

10A. History of Architecture and Urban Design: Prehistory to Mannerism. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Developments in architecture and urban design from prehistory to 1600, constructing critical positions within which, and ways they imagine new futures and shape culture can be explored. Focus on examples from Europe and Mediterranean Basin and periodic exploration of world context. P/NP or letter grading.

10B. History of Architecture and Urban Design: Baroque to Contemporary Moment. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Survey of architectural and urban history from baroque to contemporary moment that covers significant buildings, spaces, and theories of modernism. Architecture performs as reflection of cultural, sociopolitical, philosophical, and technological transformations in world history. Stylistic genres, applied terminology, seminal texts, and alternative historiographies that apply to design of built domain that ranges in scale from details to cities. While canon of Western tradition remains overall focus, weekly thematic categories provide variety of conduits for addressing architecture and urban design in global context. P/NP or letter grading.

30. Introduction to Architectural Studies. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of role of built environment in social, cultural, and political life: how buildings are constructed, what they mean, effects they have on world, and ways they imagine new futures and shape private and public life. Focus on series of contemporary case studies for each reveals about new urban conditions. Modern project can be seen in myriad forms across globe, so that city and suburb, taken together, exist in complex commingling of aesthetic, political, spatial, economic, technological, and social issues. Letter grading.

Upper Division Courses

102. Introduction to Representation. (2) Studio, four hours; outside study, two hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Offered in summer only. Letter grading.

121. Studio I. (6) Studio, eight hours; outside study, 10 hours. Limited to Architectural Studies majors. Introduction to basic architectural design principles and problem solving: line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of case-study analysis to uncover disciplinary issues within design problems, as well as to produce individual solutions to those problems. Letter grading.


123. Studio III. (6) Studio, eight hours; outside study, 10 hours. Enforced requisite: courses 121, 122. Limited to Architectural Studies majors. Introduction to disciplinary issues, techniques, and organizations of landscape and how it results in design of building and site. Development of material and temporal characteristics of architecture relative to role those play in landscape. Introduction to issues of accessibility and access as part of process. Structure as serial component that relates to site, construction, toponography, climatology, accessibility, and their mutual interaction. Letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercites, and Timelines. (4) Same as Ancient Near East M125B.) Laboratory, three hours; discussion, one hour. Enforced requisite: Ancient Near East 125A. Hands-on laboratory-based investigation of emerging digital mapping technologies, including instruction in Web-based mapping applications, virtual globes, and geometric systems (GIS). Critique and creation of maps of cultural phenomena, applying skills students learned in Ancient Near East 125A to real-world data sets in humanities and social sciences. By mastering emerging technologies in field of digital cultural mapping, students take part in evaluation and production of sophisticated visual representations of complex data, becoming active participants in development of new applications. How to use suite of GIS and geoeography tools. Fostering of creative approaches to and engagement with mapping technologies: What new questions can be asked and answered by engaging these techniques? What does one reason, argue, and solve real-world problems through digital cultural mapping? Design, development, and implementation of student mapping-based research projects. Part of Digital Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

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

M130. Space and Place. (4) (Same as World Arts and Cultures M130.) Lecture, three hours. Survey of arrays of ways human cultures create social-cultural and comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, ordinary, anonymous, or vernacular nonbuilt and built environments, that are built and used by members of small-scale, traditional, and transitional communities around world. P/NP or letter grading.

131. Issues in Contemporary Design. (3) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. How global design culture today operates as part of set of spatial, economic, political, and social discourses. From development of new formal languages in architecture, consequences of fact that great percentage of our lives is spent in controlled designed environments, including office, home, institution, and others. Investigating relationship between contemporary and historical concerns in architecture and design today in influencing design ideas and processes, as well as how design is influenced by technology and new urban conditions. Letter grading.

132. Domestic Architecture: Critical History. (3) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Investigation of relationship between culture and design through medium of domestic architecture, from communal living arrangements of antiquity to functional and automated ideals of modern movement. Exploration of how design of domestic interior has evolved to express and accommodate corresponding developments in lifestyle and taste. Letter grading.

133. Modernism and Metropolis. (3) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Introduction to emergence of contemporary metropolis through series of comparative urban explorations that become and extend to range of cities, including key examples from Asia to South America. Modern project can be seen in myriad forms across globe, so that city and suburb, taken together, exist in complex commingling of aesthetic, political, spatial, economic, technological, and social issues. Letter grading.

141. Technology I: Projections. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Letter grading.

142. Technology II: Building Materials and Methods. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Overview of three-dimensional computer-aided visualization concepts, teaching applications of AutoCAD and Maya and their use relative to process of design and visual communication. Basic representation methods and tools and introduction to additional concepts required to dynamically interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector graphics, typography, user interface, output and integration for print and Web, and introduction to three-dimensional digital modeling and fabrication. Letter grading.

153. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Environment M153.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Concurrently scheduled with course CM247A. Letter grading.
M170. Human Environment: Introduction to Architecture and Urban Planning. (4) (Same as Urban Planning M170.) Lecture, three hours; outside study, nine hours. Kinds of problems that arise in creating and maintaining environment for urban activities, and approaches and methods of architecture and urban planning in helping to cope with such problems. Complexities involved in expressing human needs and desires in provision of shelters and movement systems, to possibilities and limitations of technology, and to issues involved in relating human-made to natural environment. Students encouraged to comprehend major urban issues both as citizens and as potential technical experts. P/ NP or letter grading.

199. Directed Research or Senior Project in Architecture and Urban Design. (2 to 4) tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Course may be repeated for credit. Individual contract required. P/ NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) (Same as Urban Design M201.) Lecture, three hours; outside study, six hours. Concepts of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding nature of speculative inquiry in architectural context. Letter grading.

220. Introduction to Computers. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts, skills, and theoretical aspects of computer-aided architecture design and microcomputer applications. Topics include elementary programming languages, the computer as a drawing device, representations of conceptual and historical structures that shape current issues in architectural theory. Letter grading.

M226A. Introduction to Computer-Aided Architectural Design, Two-Dimensional. (4) (Same as Urban Planning M226A.) Lecture, three hours; laboratory, one hour. Concepts of hardware, software, and networks; file formats; rendering; and introduction to AutoCAD and other CAD applications. Letter grading.

M226B. Introduction to Computer-Aided Architectural Design, Three-Dimensional. (4) (Same as Urban Planning 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.

226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and techniques of computer visualization of artifacts, including realistic rendering and animation. Letter grading.

M227A. Programming Computer Applications in Architecture and Urban Design. (4) (Same as Design I Media Arts M241.) 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. S/U or letter grading.

M227B. Introduction to Geometric Modeling. (4) (Same as Design I Media Arts M242.) Lecture, three hours; outside study, nine hours. Prerequisite: 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 surfaces are introduced to enable students to design objects for use in architecture and urban design. Letter grading.

M227C. User Interaction Techniques in Design. (4) (Same as Design I Media Arts M243.) Lecture, three hours; outside study, nine hours. Prerequisite: courses 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 combination of conceptual and technical aspects of computer-aided architecture design. Letter grading.

227D. Design and Building Models. (4) Lecture, three hours. Review of range of information and knowledge potentially used in design. Knowledge representation, abstractions, and constructs. Logical structure of knowledge domain and the way knowledge is used in practice, of design, how it can be identified, analyzed, and structured. Letter grading.

CM247A. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Urban Planning M247A.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Concurrently scheduled with course CM153. Letter grading.

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

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

286. Roman Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural and urban developments during Roman period, from archaic age to late Empire. Built environments of ancient world investigated from various perspectives, with consideration to programming, symbolism, and viewing, as well as to technological, aesthetic, and political factors. S/U or letter grading.

288. Renaissance Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural developments from 15th to 17th century. Primary focus on Italian peninsula, and extending to entire Mediterranean area. Emphasis on analysis of ideas, Silva Bissippi, and Renaissance visions for city planning and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and iconographic content. S/U or letter grading.

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

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

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

M293. Politics, Ideology, and Design. (4) (Same as Urban Planning M293.) Lecture, three hours. Exploration of political and ideological factors in site selection and planning work. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology intersect. 294A-294B. Environmental Psychology. (4-4) Lecture, three hours. Introduction to models, concepts, and theories concerning impact of environment on human behavior, perception, and thought. Review of research and results concerning cognition, cognitive mapping, preferences and attitudes toward environment, effects of crowding and stress, personal space and territoriality. S/U or letter grading.

296. Proseminar: Critical Studies in Architectural Culture. (4) Seminar, three hours. Orientation for Ph.D. students to tradition of architectural theory, scholarship, and research to current research directions and questions, through intensive reading and class discussion. Letter grading.

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

401. Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studios (courses 412, 413, 414) or M.Arch. II student. May be repeated for credit with consent of adviser. S/U or letter grading.

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of advanced-level studios and fourth-term standing for M.Arch. II students. May be repeated for credit with consent of adviser. S/U or letter grading.

403A-403B-403C. Research Studios. (2-2-6) For courses 403A, 403B: seminar, three hours; outside study, six hours; for course 403C: studio, 12 hours; outside study, six hours. Preparation: Prerequisite: satisfactory completion of intermediate-level studios (courses 412, 413, 414, 415) or M.Arch. II student. Course 403A is requisite to 403B, which is requisite to 403C. Lectures, seminars, and studio projects focusing on special topics in architectural and urban design to be offered by faculty members. Exit document (analytic paper with graphic component that critically examines final student design work) required at completion of course. Letter grading.

403A-403B-403C. Research Studios. (2-2-6) For courses 403A, 403B: seminar, three hours; outside study, six hours; for course 403C: studio, 12 hours; outside study, six hours. Preparation: Prerequisite: satisfactory completion of intermediate-level studios (courses 412, 413, 414, 415) or M.Arch. II student. Course 403A is requisite to 403B, which is requisite to 403C. Lectures, seminars, and studio projects focusing on special topics in architectural and urban design to be offered by faculty members. Exit document (analytic paper with graphic component that critically examines final student design work) required at completion of course. Letter grading.

404. Joint Planning/Architecture Studio. (4) (Same as Urban Planning M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; working with residents at Los Angeles City public housing developments. S/U or letter grading.

411. Introductory Design Studio. (6) Studio, 12 hours; outside study, six hours. Introduction to sketching, drawing, perspectives, CAD. Architectural composi- tion is initially studied in terms of its separate elements. After each is studied by means of manipulative exercise that allows for experimentation of its intrinsic possibilities, students undertake closely controlled exercises dealing with combining elements and then design small buildings. Letter grading.

412. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Introduction to 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. Requisite: 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 of smaller-scale projects. Students learn to integrate structure and environmental control to present their ideas in graphic or model form. Letter grading.

414. Major Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: 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 of smaller-scale projects. Students learn to integrate structure and environmental control to present their ideas in graphic or model form. Letter grading.

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


436. Introduction to Building Construction. (2) Laboratory, two hours; outside study, four hours. Introduction to construction techniques. Study of physical principles and materials for making architecture through series of exercises and field trips. Letter grading.

437. Building Construction. (4) Laboratory, four hours; outside study, eight hours. Principles of structure and enclosure, with focus on production and materials research. Exploration of building elements for formal and functional properties; in addition, design development of projects in previous studio may be developed in detail with integration of range of technical systems. Letter grading.

441. Environmental Control Systems. (4) Lecture, four hours. Design of mechanical systems necessary for functioning of large buildings: air handling, fire and life safety, plumbing, vertical and horizontal circulation, communication and electrical power distribution, analysis of interaction of these systems and their integrated effects on architectural form of building. S/U or letter grading.

442. Building Climatology. (4) Lecture, four hours. Preparation: basic physics. Design of buildings that specifically respond to local climate; utilization of natural energies, human thermal comfort; sun motion and sun control devices; use of plant materials and landform to modify microclimate. S/U or letter grading.


462. Special Projects in Architecture. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

463. Special Projects in Urban Design. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

464. Comprehensive Examination Seminar. (4) Seminar, three hours; outside study, nine hours. Seminar intended to begin and deepening independent proposal with related research and documentation that moves toward production of final document or book for each project. S/U grading.

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

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

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

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


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Andrea Fraser
Roger R. Herman, M.F.A.
Mary Kelly, M.A.
Barbara Kruger
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Professors Emeriti
Samuel Amato, B.F.A.
Raymond B. Brown, M.A.
Christopher L. Burden, M.F.A.
Eliot J. Elgart, M.F.A.
Paul D. McCarthy, M.F.A.
Nancy J. Rubins, M.F.A.

Assistant Professor
Rodney T. McMillan, M.F.A.

Lecturer
Don D. Suggs, M.F.A.

Scope and Objectives
The Department of Art offers professional art training that emphasizes experimentation and encourages students to draw from many disciplines in their creative process. The department provides a strong background in theory and criticism to support contemporary studio practice. Bachelor of Arts degree coursework and Master of Fine Arts degree specializations include ceramics, new genres, painting and drawing, photography, and sculpture. An inter-disciplinary studio option is offered within the M.F.A. program. All programs have access to the art resources at UCLA and in the Los Angeles community.

The Department of Art reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

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

Undergraduate Study
The Art major is a designated capstone major. As part of the upper division advanced studio requirements, all undergraduate students are required to complete a senior studio course that emphasizes analysis and criticism of individual creative work and ideas. Students develop and present a body of creative work in which they exhibit familiarity with and competence in a range of techniques and media, and a level of proficiency in utilizing particular media appropriate to advanced-level studio projects. Graduates are expected to demonstrate familiarity with historical precedents for and issues in contemporary art, to understand terms and concepts relevant to contemporary art discourse, and to have the ability to effectively articulate analysis of works of art to participate in a studio critique.

Art B.A.
Capstone Major
Preparation for the Major
The Major
Required: A minimum of nine upper division courses, including Art 100 or 132 or one course from an approved list of upper division nonmajor courses, six courses from at least four of the following studio areas: 130, 133, 137, 140, 145, 147, 148, one course from Art History M101A through C180C, one capstone senior studio course (Art 150), and 10 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://grad.ucla.edu/gasasa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Art offers the Master of Fine Arts (M.F.A) degree in Art.

Art
Lower Division Courses
1A. Drawing. (4) Studio, eight hours; five hours arranged. Course in basic drawing skills intended as preparation for work in variety of media. P/NP or letter grading.
1B. Sculpture. (4) Studio, eight hours; five hours arranged. Introduction to concepts and forms of contemporary sculpture to become familiar with tools and material to enable students to visually manifest their individual ideas. Presentation of work of contemporary artists. P/NP or letter grading.
1C. Printmaking. (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.
1D. Ceramics. (4) Studio, eight hours; five hours arranged. Fundamentals in technique, with emphasis on individual projects. Variety of approaches, processes, and applications of photographic medium within context of art, supported by studies in theory, aesthetics, and history of photography. P/NP or letter grading.
1E. 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) 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 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, covering shift from modernism to postmodernist practices and theories, with focus on work made from 1960s to present. Letter grading.
70. Summer Art Institute: Special Topics in Studio. (3) Studio/lecture/field trips, 45 hours. Limited to high school students in Summer Art Institute. Two-week intensive in studio art covering range of media and contemporary art practices and combination of focused studio work, lecture/presentations, field trips, critiques, and final exhibition of student work. Offered only as part of Summer Institute. May be repeated once for credit. P/NP grading.

Upper Division Courses
100. Issues in Contemporary Art. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Selected topics in theoretical, critical, aesthetic, and historical studies of the contemporary period directed toward practicing artists. May be repeated for maximum of 20 units. Letter grading.
130. Advanced Painting. (5) Studio, eight hours; seven hours arranged. Requisite: course 1A. Painting as both independent expressive medium and as means of visualization. May be repeated for maximum of 20 units. Letter grading.
132. Survey of Critical Thought. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Overview of premodern, modern, and postmodern theory as reflected in critical writing and artistic practice, with emphasis on 1940s to present. Specific topics may vary. May be repeated for maximum of 20 units. Letter grading.
133. Advanced Painting. (5) Studio, eight hours; seven hours arranged. Requisite: course 11A. Varied media and subjects to further develop students’ technical and experimental methods to implement their ideas. May be repeated for maximum of 20 units. Letter grading.
137. Advanced New Genres. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Emphasis on collaboration by students from one or more of following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for maximum of 20 units. Letter grading.
140. Advanced Printmaking. (5) Studio, eight hours; seven hours arranged. Requisite: course 11C. Selected studies in fine printmaking, historical and contemporary: woodcut, etching and engraving, lithography, silk screen, mixed media. May be repeated for maximum of 20 units. Letter grading.
145. Advanced Sculpture. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Selected studies in sculpture, historical and contemporary: modeling, carving, casting, welding, and other media; forms in space, including installations and nonstudio pieces. May be repeated for maximum of 20 units. Letter grading.
147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Selected projects in photography and related media, concentrating on development of individual students’ artwork. Studio emphasis on special topics in theory and critical analysis. May be repeated for maximum of 20 units. Letter grading.
148. Advanced Ceramics. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Selected studies in ceramics, with emphasis on individualized creative experimentation with materials and technical introductions in course. Methods and processes to be selected from range of possibilities, including handforming and modeling and use of molds, slipcasting, and use of potter’s wheel. May be repeated for maximum of 20 units. Letter grading.
150. Senior Studio. (5) Studio, eight hours; seven hours arranged. Limited to seniors. Advanced studio projects, with emphasis on analysis and criticism of individual creative work and ideas. Letter grading.
170. Special Topics in Studio. (2 to 4) Studio/museum visits, four to eight hours; two to four hours arranged. Current themes in art practice and criticism, offering students opportunity to explore these issues in studio context through critique of work and discussion of recommended readings. May be repeated for maximum of 16 units. P/NP or letter grading.
C180. Seminar. (Art. (4) Seminar, three hours. Limited to junior/senior Art majors. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminist and psychoanalytic theory, commodification, and censorship. May be repeated for credit. Concurrently scheduled with course C280. Letter grading.
C181. Exhibition and System. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Introduction to principles of program planning and community development in relation to visual arts and work of artists. Concurrently scheduled with course C282. Letter grading.
C183. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Preparation: at least one course from 100 through 150. Selected topics in art explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance may be repeated for credit. Concurrently scheduled with course C283. Letter grading.
M184. Chicana and Chicano Art. (4) (Same as Chicana and Chicano Studies M184 and World Arts and Cultures M128.) Lecture, four hours. Introduction to Chicana and Chicano studies. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicana. Letter grading.
M185. Whose Monument Where: Course on Public Art. (4) (Same as Chicana and Chicano Studies M185 and World Arts and Cultures M126.) Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Examination of public monuments in U.S. as basis for cultural insight and critique of American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is “public;” what is “public space” at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.
M186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186A and World Arts and Cultures M125A.) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. P/NP or letter grading.
M186AL-M186BL-M166CL. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186AL and World Arts and Cultures M125AL-M125BL-M125CL) Course M186AL is required to M186BL, which is requisite to M186CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory tech support. Corequisite: one supervising faculty member required. P/NP or letter grading. M186AL. Beginning. Laboratory, four hours. Corequisite: course M186A, M186BL. Intermediate. Laboratory, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186B. M186CL: Advanced. Laboratory, two hours. Corequisite: course M186C.

M186B. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186B and World Arts and Cultures M125B) Studio/laboratory, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through full scale and community approval. P/NP or letter grading.

M186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186C and World Arts and Cultures M125C) Seminar/laboratory, six hours. Requisites: courses M186B, M186BL. Corequisite: course M186CL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Limited to junior/senior Art majors. Exploration of critical concepts of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as individual works. Concurrently scheduled with course C183. Seminar, three hours; outside study, three hours. Preparation: 3.0 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Development and completion of comprehensive research project or studio project under direct supervision of faculty member. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

271. Graduate Painting. (2 to 8) Studio, eight hours. Studio emphasis on student participants. May be repeated for credit with consent of adviser. Letter grading.

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

273. Graduate Sculpture. (2 to 8) Studio, eight hours. Study of works of art and student work reflecting student's expressive and theoretical concerns. May be repeated for credit with consent of adviser. Letter grading.

274. Graduate Photography. (2 to 8) Studio, eight hours. Studies concentrating on development of individual student's artwork. May be repeated for credit with consent of adviser. Letter grading.

275. Graduate New Genres. (2 to 8) Studio, eight hours. Studies in studio practice with focus on new media and non-traditional media and processes. May be repeated for credit with consent of adviser. Letter grading.

276. Graduate Group Critique. (4) Discussion, four hours; tutorial, to be arranged. Group critiques of student's research. Tutorial focused on directed research, studio visits, and group discussions of recommended readings. May be repeated for credit with consent of adviser. Letter grading.

277. Graduate Ceramics. (2 to 8) Studio, eight hours. Studio emphasis on student participants. May be repeated for credit with consent of adviser. Letter grading.

278. Interdisciplinary Studio. (2 to 8) Studio, eight hours. Studio emphasis on student participants. May be repeated for credit with consent of adviser. Letter grading.

279. Seminar: Art. (4) Seminar, three hours. Advanced topics in critical theory and study of contem- porary art, with emphasis on individuals, issues, and methodologies. Readings often related to student's experience and current debates. May be repeated for credit. Concurrently scheduled with course C180. Letter grading.

280. Seminar: Art. (4) Seminar, three hours. Advanced topics in critical theory and study of contem- porary art, with emphasis on individuals, issues, and methodologies. Readings often related to student's experience and current debates. May be repeated for credit. Concurrently scheduled with course C180. Letter grading.

C281. Exhibition and System. (4) Seminar, four hours. Examination of temporary exhibition and its associated field of publications as intertextual system of meaning, beginning with individual 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) Seminar, four hours. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. May be repeated for credit. Concurrently scheduled with course C182. Letter grading.

C283. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Selected topics in art explored through variety of approaches that may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C183. Letter grading.

C287. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Exploration of critical issues regarding concept of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as individual works. Concurrently scheduled with course C187. Letter grading.

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

400A-400B. Visiting Artists Studio. (2-3) Studio, six hours. Designed for M.F.A. students. Introduction to visiting artists in their area of study, with focus on one- on-one critiques with wide range of practitioners. In Progress (400A) and S/U (400B) grading.

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

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Fo- rum 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 as- sistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate 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 Master's Comprehensive Examination. (2 to 12) Tutorial, to be arranged. May not be applied toward M.A. or M.F.A. course require- ments. May be repeated. S/U grading.
to admission to UCLA: two art history courses in ancient, Renaissance and baroque, medi-
evval, or modern art and two courses in African, Asian, oceanic, Native American, or pre-
Columbian art.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_
tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper division art history courses as follows:

A total of six courses (24 units) from the following 12 areas are required, distributed as fol-
loows: one course from three different areas in Group A (three courses total) and one course from three different areas in Group B (three courses total):

Group A: (1) M101A, M101B, M101C, M102A
through M102E, (2) M102F through M102K, (3)
105A through 105F, M173, (4) 106A through 106D,
(6) 110A through 110F, 110J, 113A,
113B, 113C, C147, C149A, C149B, C150A
through 150D, C171A, C171B, C171C, M172,
C180A, C180B, (7) 110G, C110H, C110I,
C112A through CM112F, 117E

Group B: (8) 104A, 104B, C104C, (9) 114A,
114D, 114F, 114G, C115A, C180C, (10) 114C,
114E, C115B through C115G, C140A through
C140D, (11) C117A through C117D, 118D,
118E, (12) 118A through 118E, C119C,
C119D, 119E

Five art history electives selected from courses 100 through C180C are required; course 197
may also be included.

Two additional terms of a foreign language are also required, which are in addition to the Col-
lege foreign language requirement. For example,
if French was used to satisfy the College
foreign language requirement, two terms of ei-
ther advanced French or any level of a second
language must be taken to satisfy the foreign
language requirement for the major.

Art History majors should be aware that the up-
per division course requirements in the major
(44 units) do not meet the upper division re-
quirement of 60 units for graduation. Additional
upper division units must be taken to reach the
60-unit total.

It is recommended that students have each
term’s program approved by the departmental
adviser.

Honor Program

The honors program is designed for Art History
majors who are interested in carrying out an in-
dependent research project that culminates in a
departmental honors thesis of approximately 30
pages. The program gives qualified students
the opportunity to work closely with individual
professors on an in-depth supervised research
and writing project.

All senior Art History majors who have com-
pleted a minimum of six upper division art his-
tory courses with a departmental grade-point
average of 3.5 or better and an overall GPA of
3.0 or better are eligible to apply. Consult the
art history student affairs officer no later than
the beginning of Fall Quarter of the senior year.

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

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

Art History Minor

The Art History minor is designed for students
who wish to augment their major with a series of
courses that analyze the history, theory, and
criticism of diverse visual traditions in world cul-
ture. On the lower division level, the minor ex-
poses students to overviews of these traditions in
broad time periods from ancient to modern,
from the regional to the global, as well as to
courses that trace the historical significance of
art in the context of specific thematic and media
concerns. Upper division courses offer more
specialized content that explores crucial epi-
sodes or areas with more intense and rigorous
theoretical and methodological strategies.

To enter the minor students must be in good ac-
demic standing with an overall grade-point av-
average of 2.0 or better, have completed 45 units,
and file a petition with the student affairs officer
in 206A Dodd Hall, (310) 825-3992. Students
are advised to declare the minor early and
meet with the student affairs officer to plan a
coherent program.

Required Lower Division Courses (15 units):

Three courses selected from Art History 50, 51,

Required Upper Division Courses (20 units):

Five art history courses, with at least two from
each group:

Group A: (1) M101A, M101B, M101C, M102A
through M102E, (2) M102F through M102K, (3)
105A through 105F, M173, (4) 106A through 106D,
(6) 110A through 110F, 110J, 113A,
113B, 113C, C147, C149A, C149B, C150A
through 150D, C171A, C171B, C171C, M172,
C180A, C180B, (7) 110G, C110H, C110I,
C112A through CM112F, 117E

Group B: (8) 104A, 104B, C104C, (9) 114A,
114D, 114F, 114G, C115A, C180C, (10) 114C,
114E, C115B through C115G, C140A through
C140D, (11) C117A through C117D, 118D,
118E, (12) 118A through 118E, C119C,
C119D, 119E

Art History 127 (4 units) may be taken as one of
the five upper division courses required for the
minor.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

No more than one course may be applied toward both this minor and a major or minor in another department or program. By petition, one upper division course with substantial art historical content and methodology applied toward the students' majors may also be applied toward this minor.

One course may be taken on a Passed/Not Passed basis; each of the other minor courses must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/graduate. 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. Introduction to art and architecture of ancient Egypt, Mesopotamia, Aegae, Greek, Hellenistic, and Roman art and architecture. P/NP or letter grade.

51. Medieval Art. (5) Lecture, three hours; quiz, two hours. Early Christian, Byzantine, Islamic, Carolingian, Romanesque, and Gothic art and architecture. P/NP or letter grade.

54. Modern Art. (5) Lecture, three hours; discussion, one hour; museum field trips. History of modern art from 1860s to 1960s, from Manet and impressionists to pop art and minimalism. Study of origins and social functions, as well as aesthetic innovations and philosophical dilemmas of modernism. P/NP or letter grade.

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 social and historical contexts of their production. Introduction to body of information within framework of conceptual problem through series of case studies. P/NP or letter grade.

55B. Introduction to Pre-Columbian Art. (5) Lecture, three hours; discussion, one hour; museum field trips. Survey of sequence of cultures that developed in area between (and including) Mexico and Peru from circa 1000 B.C. to Conquest. P/NP or letter grade.

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 grade.

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 modernism, in terms of art as well as artifacts in variety of media in their social and historical contexts. P/NP or letter grade.

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 iconographic analysis. Coverage of historical development of European art and architecture over period of almost 500 years and exploration of ways in which those in religious and secular power used images to promote their particular ideologies. P/NP or letter grade.

88A-B. 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 specific term. P/NP or letter grade.

88A. Buddha's Life and Teachings in Art, Texts, and Worship. (4) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grade.

Upper Division Courses

100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requisites: courses 50 through 57. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts. Letter grade.

M101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) (Same as Ancient Near East CM101A.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic and Old Kingdom. May be repeated for credit with consent of instructor. P/NP or letter grade.

M101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) (Same as Ancient Near East CM101B.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. P/NP or letter grade.

M101C. Ancient Egyptian Temple and City of Thebes. (4) (Same as Ancient Near East M101C.) Lecture, four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt. Yet their study raises critical questions about artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile's eastern and western banks through festival processions, chronological changes in function and form of Theban temples through time, and statutory program of individual temple. P/NP or letter grade.

M102A. Minoan Art and Archaeology. (4) (Same as Classics M153A.) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture in Minoan Crete from circa 2000 to 1000 B.C. P/NP or letter grade.

M102B. Mycenaean Art and Archaeology. (4) (Same as Classics M153B.) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture in Mycenaean Greece from circa 2000 to 1000 B.C. P/NP or letter grade.

M102C. Archaic Greek Art and Archaeology. (4) (Same as Classics M153C.) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture in Greece in works from approximately 680 through 490 B.C. P/NP or letter grade.

M102D. Classical Greek Art and Archaeology. (4) (Same as Classics M153D.) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 490 through 350 B.C. P/NP or letter grade.

M102E. Hellenistic Greek Art and Archaeology. (4) (Same as Classics M153E.) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture of Greek world from middle of 4th century B.C., including transmittal of Greek art forms to Romans. P/NP or letter grade.

M102F. Etruscan Art. (4) (Same as Classics M153F.) Lecture, three hours. Requisite: course 50 or Classics 20 or 51B. Arts of Italic peninsula from circa 1000 B.C. to end of Roman Republic. P/NP or letter grade.

M102G. Roman Art and Archaeology. (4) (Same as Classics M153G.) Lecture, three hours. Requisite: course 50 or Classics 20 or 51B. Art and architecture of Rome and its Empire from circa 300 B.C. to A.D. 300. P/NP or letter grade.

M102H. Late Roman Art. (4) (Same as Classics M153H.) Lecture, three hours. Requisite: course 50 or Classics 20 or 51B. Art of Roman Empire from 2nd through 4th century (A.D.). P/NP or letter grade.

M102I-M102J. Classical Archaeology. (4-4) (Same as Classics M153I-M153J.) Lecture, three hours. Requisite: course 50, Classics 10, 20, 51A, 51B, or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Aegean, Greek, and Roman architecture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grade.

M102K. Greco-Roman Architecture; M102J. Greco-Roman Sculpture; M102K. Greco-Roman Painting.

C103A-C103B. Museum Studies. (4-4) Concurrently scheduled with courses C203A-C203B. P/NP or letter grade. 

C103A. Lecture, three hours; discussion, one hour (when scheduled); demonstrations/field trips. Introduction to historical evolution of museums and museology, theories and methods of their operation, historical and critical relationships between museology, art history, and new technologies for archiving and exhibiting artifacts and historical materials. C103B. Lecture, three hours; demonstrations/field trips. Lectures and discussions organized to foster active critical engagement with museum policies, operations, and productions, including focused study and on-site research on particular museum institutions and exhibitions.

C103C. Museum Studies Practicum. (2 to 4) Lecture, three hours. Requisites: courses C103A, C103B. On-site examination and discussion of selected artwork, exhibitions, and associated museum publications, contributions, and museum policies, as well as the evaluation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environments. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and conceptual aspects will be emphasized. P/NP or letter grade.

C103D. Preservation of Art. (4) Lecture, three hours. Designed for Anthropology and Art History majors and other juniors/seniors. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environments. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and conceptual aspects will be emphasized. P/NP or letter grade.

C103F. Art: Fakes, Forgeries, and Authenticity. (4) Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity and description of many examples of problems related to this concept in series of discussions based on
objects from variety of cultures. Introduction to subject of fakes and account of three different areas of connoisseurship that are essential component of protection, study, and scientific examination of fakes. Nature of art connoisseurship described in many examples from Renaissance and earlier panel paintings, as well as antiquities and traditional African arts. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis of another kind of connoisseurship described in terms of dating techniques that can be applied directly to works of art and technical methods by which material constitutes works of art are studied. Concurrently scheduled with course C203G. P/NP or letter grading.

40A. Western Islamic Art. (4). Lecture, three hours. From Tigris and Euphrates Rivers to Spain, 7th to 16th century. P/NP or letter grading.

40B. Eastern Islamic Art. (4). Lecture, three hours. From Tigris and Euphrates Rivers through Afghanistan and parts of central Asia; Ottoman Empire. P/NP or letter grading.

C104C. 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 C212C. P/NP or letter grading.


105E. Byzantine Art. (4). Lecture, three hours. Requisite: course 51. Theory and development of Byzantine art from iconoclastic controversy to 1453 and fusion of Byzantine art in Armenia, Georgia, Caucasus, and Russia. P/NP or letter grading.


106D. Late Renaissance Art: Counter-Reformation. (4). Lecture, three hours. Requisite: course 57. Painting, sculpture, and architecture of late 16th and early 17th centuries considered in context of Counter-Reformation. P/NP or letter grading.


108C. From Bruegel to Rubens. (4). Lecture, three hours. Requisite: course 57. Art and history in Spanish southern Netherlands (i.e., present-day Belgium), circa 1550 to 1650, in context of Spanish rule and revolt against it (1568 to 1585), truce with northern independent (Dutch) Netherlands (1609 to 1621), and renewal of war (1621 to 1648). P/NP or letter grading.

C109A. Baroque Art. (4). Lecture, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C209A. P/NP or letter grading.


108C. European Art of 18th Century. (4). Lecture, three hours. Requisite: course 57. Painting, architecture, and sculpture of 18th century examined in light of political and intellectual developments. Special emphasis on effect of rise of democratic institutions, especially French Revolution. P/NP or letter grading.


110C. European Art of 19th and 20th Centuries: Modernism. (4). Lecture, three hours. Concurrently scheduled with course CM212F. P/NP or letter grading.

111D. Mexican Art in Modern Age. (4). Lecture, three hours. Study, discussion, one hour. Introduction to Mexican art of 19th and 20th centuries. Emphasis on political and intellectual developments. Special emphasis on political and social developments in Mexico, and on the role of Mexican art in the history of 20th-century European and American art. P/NP or letter grading.

112A. American Art before Civil War. (4). Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period through Civil War. Concurrently scheduled with course C212A. P/NP or letter grading.

112B. American Art in Gilded Age, 1860 to 1900. (4). Lecture, three hours. Painting, sculpture, and architecture in U.S. from Civil War to turn of century. Concurrently scheduled with course C212B. P/NP or letter grading.

112C. American Art, 1900 to 1945. (4). Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to 1945. Concurrently scheduled with course C212C. P/NP or letter grading.

CM112D. African American Art. (4). (Same as Afro-American 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.

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.

113A. Architecture in U.S. (4). Lecture, three hours; discussion, one hour. Introduction to architecture built in U.S. over last 5,000 years. Architecture as vehicle for political and cultural authority, citizenship, ethnic and social identity; its role in defining place and our relationship to natural environment and as vehicle for asserting human control over natural world; its place in world of work and commerce; and its status as professional and aesthetic pursuit. P/NP or letter grading.

113B. Cities in History. (4). Lecture, three hours; discussion, one hour. Examination of history of cities worldwide, locating cities in their aesthetic, social, cultural, and symbolic contexts. History of cities from origins of urbanism to present, with focus on recent centuries. P/NP or letter grading.

113C. American Houses. (4). Lecture, three hours. Many historians consider single-family houses to be one of two most American contributions to world architecture (next to skyscrapers). Examination of this claim critically by placing single-family houses in broader context of varied dwellings built and occupied by residents of present-day U.S. over last 500 years, including both aesthetically ambitious houses and ordinary (or vernacular) ones, houses of indigenous groups and those of immigrants of many sorts, urban and rural houses, and single-family houses and multiple dwellings of all sorts. Offers ways to think about houses we occupy and to understand how they relate to major themes in history of American architecture. P/NP or letter grading.

114A. Early Art of India. (4). Lecture, three hours. Not open to freshmen. Survey of Indian art from Indus Valley cultures to 10th century. Emphasis on Buddhism and Hindu backgrounds of arts. P/NP or letter grading.

114D. Later Art of India. (4). Lecture, three hours. Not open to freshmen. Survey of Indian art from 10th to 19th century. Hindu art, last flowering 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 Neolithic Period through Yi dynasty. Particular emphasis on early arch- aeological and Buddhist and Korean ceramics, and Yi literati painting. P/NP or letter grading.


114G. Archaeology of Japanese Islands. (4). Lecture, three hours. Limited to juniors/seniors. Survey of archaeology of Japanese islands from Paleolithic to historical period, with focus on earliest stone age cultures and Jomon period. Consideration of Yatogai period in context of origins of agriculture on islands, while discussion of historical periodization and relationships with Korean peninsula. P/NP or letter grading.

C115A. Advanced Indian Art. (4). Lecture, three hours. Requisite: course 114A. Study in Indian sculpture and architecture. Concurrently scheduled with course C257. P/NP or letter grading.


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, jade carvings). 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. Requisite: course 115D. Study in Early Imperial dynastic 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. Secu- lar 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.

C115G. Art in Modern China. (4). Lecture, three hours. Concentrated look at major schools and masters of Chinese art from turn of 20th century to present, with focus on interaction with foreign cultures and issues of self-identity, assimilation, modernity, tradi- tion, and continuity. Consideration of recent develop- ments in Chinese art in global context. Concurrently scheduled with course C261D. P/NP or letter grading.

C115I. Selected Topics in Chinese Art. (4). Lecture, three hours. Variable topics in Chinese art that reflect interests of individual regular or visiting faculty members. Concurrently scheduled with course C261E. P/NP or letter grading.

C115J. Fieldwork in Archaeology. (8). Fieldwork, eight hours. Course takes place at Yangguanzhai Village in Jing River Valley, approximately 25 kilometers north of ancient city of Xi’an in northwest China, as collaborative project between Cotsen Institute of Archaeology at UCLA, Shaanxi Institute of Archaeology, and Xibei University in Xi’an China. Students spend first week in Xi’an for five days of lectures and museum instructional tours. Following four weeks are spent in field participating in excavation and laborato-
197. Individual Studies in Art History. (2 to 4). Tu-
torial, to be arranged. Preparation: 3.0 grade-point av-
erage in major. Limited to seniors. Individual intensive study for majors in upper division art history courses to be
ranged between faculty member and student. As-
signed reading and tangible evidence of mastery of sub-
ject matter required. May be repeated for maxi-
mum of 6.0 units toward major. Individual contract required. P/NP or letter grading.

198A-198B. Honors Research in Art History. (4-4).
Tutorial, to be arranged. Preparation: completion of
major, or upper division art history courses with 3.5 departure grade-point average and overall
3.0 grade-point average. Limited to junior/senior Art
History and History/Art History majors. Two-term in-
dependent research project under supervision of ap-
propriate faculty member, culminating in departmental honors thesis of approximately 30 pages. Individual
contract required. In Progress (198A) and letter (198B) grading.

199. Directed Research in Art History. (2 to 4).
Tutorial, two hours. Limited to juniors/seniors. Super-
vised individual research or investigation under guid-
ance of faculty mentor. Culling paper or project required. May be repeated for credit. Individual con-
tract required. P/NP or letter grading.

Graduate Courses

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

201. Topics in Historiography of Art History. (Seminar, three hours). Critical examination of historio-
graphy and traditions of specific areas and disci-
pline of art history, concentrating on particular time
periods, geographical areas, artistic traditions, or
work of one or more authors. May be repeated for
credit with consent of adviser. S/U or letter grading.

(Seminar, three hours). Focused studies of various
theoretical and critical traditions within art history,
concentrating on particular issues, authors, or meth-
ology, either within or across historical and cultur-
al areas. May be repeated for credit with consent of
adviser. S/U or letter grading.

203A-C203B. Museum Studies. (4-4). Concurrent-
lly scheduled courses C103A-C103B. S/U or let-
er grading. C203A. Lecture, three hours; discussion/
field trips. Introduces historical and cultural and tech-
cniques in context of their geographical
and chronological occurrence, technological develop-
ments, physical and conservation history, and physi-
cal location. Lectures, studio, and laboratory pre-
sentations, museum and site visits, hands-on labora-
tory experience, and independent research that
involves research and conservation and art history students.

204. Restoration, Preservation, and Conservation. (Seminar, two hours). May not be repeated. S/U or
letter grading.

M204A. Cultural Materials Science I: In Situ Nonin-
vasive Diagnostic Investigations and Documentation.
(Same as Conservation M215.) Seminar, two
hours; laboratory, three hours. Cultural heritage sci-
ence is about understanding chemistry and technolo-
gy of cultural materials and processes of deterioration and
exploration of means to preserve these materials
through application of technologies and knowledge
from physical sciences and engineering. Introduction to
to first steps of scientific analysis and documentation
of cultural materials for development of risk assess-
ments by examining noninvasively their surface, sub-
surface, and interior. Topics include digital photogra-
phy, X-ray fluorescence, elastography (at wide spectral
range), and portable spectroscopic methods for non-
invasive material analysis at molecular and elemental
levels. Knowledge and practical skills to apply basic
principles of noninvasive preservation treatment in
field and laboratory and to appreciate potential con-
tribution of more advanced imaging and spectroscop-
ic tools. Letter grading.

M203F. Techniques and Materials of Archaeologi-
cal and Cultural Materials: In Situ and Ex Situ Ar-
chitectural Decorative Surfaces. (4). (Same as
Conservation M230 and Materials Science M215.)
Seminar, two hours; laboratory, three hours. Requi-
site: Conservation M210 or Materials Science M216
or C112. Recommended: course M204A. Designed
for graduate conservation and art history students.

Principles of archaeological conservation of in situ and ex situ monuments and cultural materials, with focus on rock art, wall paintings, poly-
chrome sculpture, decorative architectural elements, and mosaics, through three-hour贬ons: enhancing relevant mate-
rnal and techniques in context of their geographical
and chronological occurrence, technological develop-
ments, physical and conservation history, and physi-
cal location. Lectures, studio, and laboratory pre-
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cal location. Lectures, studio, and laboratory pre-
sentations, museum and site visits, hands-on labora-
tory experience, and independent research that
involves research and conservation and art history students.
trism, political resistance, and notions of blackness. 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 7th to 17th century. Monuments or theoretical problems related to Islamic culture and artistic production. May be repeated for credit with consent of adviser. S/U or letter grading.

214. 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 adviser. Concurrently scheduled with course CM115A. S/U or letter grading.

215J. Fieldwork in Archaeology. (8) Fieldwork, eight hours. Course takes place at Yangguanzhai Village in Jing River Valley, approximately 25 kilometers north of ancient city of Xi’an in northwestern China, as collaborative project between Cotsen Institute of Archaeology at UCLA, Shaanxi Institute of Archaeology, and Xibei University in Xi’an China. Students spend first week in Xi’an for five days of lectures and museum instructional tours. Following four weeks are spent in field participating in excavation and laboratory work at Shaanxi Institute of Archaeology’s Jingwei Research Base near Yangguanzhai site. Concurrently scheduled with course CM215J. S/U or letter grading.


216D. 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 present, with emphasis on cultural, social, and historical contexts of architecture, gender, and space, and contemporary African cities. Concurrently scheduled with course CM119D. S/U or letter grading.

217. Primitivism and Art. (4) Lecture, three hours. History of primitivism in visual arts and its institutional base from ancient Greece to present, with emphasis on relevance to contemporary issues, critiques, and theory. May be repeated for credit with consent of adviser. S/U or letter grading.

218A. Pre-Columbian Art of Mexico. (4) Lecture, three hours. Requisite: course 55B. Study of art of selected peoples of the region from circa 1200 B.C. to Conquest, with emphasis on historical and iconographic problems. May be repeated for credit with consent of adviser. Concurrently scheduled with course CM117A. S/U or letter grading.

218B. Pre-Columbian Art of Maya. (4) Lecture, three hours. Requisite: course 55B. Study of art of selected Mesoamerican peoples of southern Mexico from circa 2000 B.C. to Conquest, with particular emphasis on history and iconography. May be repeated for credit with consent of adviser. Concurrently scheduled with course CM117A. S/U or letter grading.

219A. Oceanic Art. (4) Seminar, three hours. Requisite: course 55B. Study in selected topics in art of Polynesian Islands. May be repeated for credit with consent of adviser. S/U or letter grading.

219B. Pre-Columbian Art. (4) Seminar, three hours. Requisite: course 55B or consent of instructor. Study in selected topics in art of pre-Hispanic Latin America. May be repeated for credit with consent of adviser. S/U or letter grading.

219C. African Art. (4) Seminar, three hours. Requisite: course 55B. Study in selected topics in art of Sub-Saharan Africa. May be repeated for credit with consent of adviser. S/U or letter grading.


221. Topics in Classical Art. (4) Seminar, two to three hours. Requisite: course 55B or consent of instructor. Study of selected topics in Byzantine and European medieval art. May be repeated for credit with consent of adviser. S/U or letter grading.

222. Classical Art. (4) Seminar, two hours. Requisite: course 55B. Study in selected topics in pre-Hispanic Latin America. May be repeated for credit with consent of adviser. S/U or letter grading.

225. Medieval Art. (4) Seminar, two hours. Requisite: course 55B. Study in selected topics in Byzantine and European medieval art. May be repeated for credit with consent of adviser. S/U or letter grading.

226A-226B. Medieval Art and Architecture. (4-4) Seminar, two hours. Requisite: course 55B. Study in selected topics in Byzantine and European medieval art. May be repeated for credit with consent of adviser. In Progress (226A) and In Progress (226B).

229. Renaissance and Baroque Paleography. (4) Seminar, two hours. Requisite: knowledge of Italian. Workshop approach to documents pertaining to artistic commissions from 15th to 18th century. Various aspects of handwriting in official and private deeds, correspondence, treatises, and inscriptions. May be repeated for credit with consent of adviser. S/U or letter grading.

230. Italian Renaissance Art. (4) Seminar, two hours. Requisite: knowledge of Italian. Study of various aspects of Leonardo’s theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser. S/U or letter grading.
231. Leonardo and Renaissance Theory of Art. (4) Seminar, two hours. Preparation: knowledge of Italian. Special emphasis on Leonardo’s theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser. S/U or letter grading.

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

240. Baroque Art. (4) Seminar, two hours. Emphasis on selected topic (e.g., particular artist, trend, or problem). Research papers and oral reports required. Language requirements depend on area of focus. May be repeated for credit with consent of adviser. S/U or letter grading.

M241A-M241B. Seminars: Modern European History. (4-4) (Same as History M230A-M230B.) Seminar, three hours. Course M241A is requisite to M241B. May be repeated for credit with consent of adviser. In Progress (M241A) and S/U or letter (M241B) grading.


C242B. History of Korean Ceramics. (4) Lecture, three hours. Requisite: course 114E. History of Korean ceramic from 19th century to 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course C140B. S/U or letter grading.

C242C. History of Korean Buddhist Art. (4) Lecture, four 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 C140C. S/U or letter grading.

C242D. Selected Topics in Korean Art. (4) Lecture, three hours. Requisite: course 114E. Variable topics in Korean art that reflect interests of individual regular and/or visiting faculty members. May be repeated with consent of instructor. S/U or letter grading.

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

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

C247. Modern Art, 1900 to 1950. (4) Lecture, three hours; discussion, one hour. Inquiry into 20th-century modernism to abstract expressionism. Topics include primitivism, gender, and sexuality in modernist art; origins of abstraction, collage, photomontage, and ready-made; rise of automatism and chance procedures; art, utopia, and political revolution; antimodernism and fascism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrently scheduled with course C147A. S/U or letter grading.

C249A. Dada, 1915 to 1923. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to modernism and historical avant-garde of early 20th century, tracing in detail emergence of Dada avant-garde in its various geographical locales during and after World War I. Visual art, literature, film, and performance addressed; with special attention to invention of series of avant-garde strategies crucial to Dada: ready-made, chance procedures, mechanical drawing, and photomontage. Concurrently scheduled with course C149A. S/U or letter grading.

C249B. Surrealism, 1924 to 1939. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of art, literature, and film associated with surrealist movement in France, with special attention to dissident surrealism of writer and philosopher Georges Bataille and painter Arp, and later to the evolution of surrealism by surrealism's engagement with lessons of psychoanalysis. Concurrently scheduled with course C149B. S/U or letter grading.

C250A. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Requisite: course 54. Study of major artistic and cultural trends following World War II in U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course C150A. S/U or letter grading.


C250C. Contemporary Art, 1980s to Present. (4) Lecture, three hours; discussion, one hour. Requisite: course 54. Study of politics of representation at end of 20th century and current definition of self and identity, body, new media and technologies. May be repeated for credit with consent of adviser. Concurrently scheduled with course C150E. S/U or letter grading.

C251. Modern Art, 1900 to 1945. (4) Seminar, three hours. Selected topics in contemporary art, criticism, and theory. S/U or letter grading.

C252. Mexican Art in Modern Age. (4) Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1785 to present day. Study of art and revolution, muralism, surrealism, indigenismo, pop art, and new media. Concurrently scheduled with course C1510. S/U or letter grading.

C253. Modern Art. (4) Seminar, two hours. Changing topics in modern art (including illustration and other popular forms) that reflect interests of particular faculty members. Political and economic factors affecting arts of France and Germany at various times may be repeated for credit with consent of adviser. S/U or letter grading.

C254. Latin American Art of 20th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Mainstream modern and contemporary art and architecture of Latin American countries, including both modernism and postmodernism forms, considered in context of social and political concerns, both national and international. May be repeated for credit with consent of adviser. Concurrently scheduled with course C1510H. S/U or letter grading.

C255. American Art. (4) Seminar, two hours. Requisite: course C121A or C121B or C121C, depending on topic. Topics in American art from Colonial period to present. Discussion of weekly readings, student oral presentations, and papers. May be repeated for credit with consent of adviser. S/U or letter grading.

M256. Topics in African American Art. (4) (Same as Anthropology M216.) Lecture, three hours. Study of origin, social functions, and development of art in Africa. Concurrently scheduled with course C115S. S/U or letter grading.

M262A. Topics in Asian Archaeology. (4) (Same as Anthropology M216.) Lecture, three hours. Study of origin, social functions, and development of art and trade and their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural "influence." Letter grading.

265. Fieldwork in Archaeology. (2 to 8) Fieldwork, to be arranged. Participation in archaeological excavations or other archaeological research under supervision of staff. May be repeated for credit with consent of adviser. S/U or letter grading.


C271D. Selected Topics. Variable topics in history of photography that reflect interests of individual regular and/or visiting faculty members.
A major goal of the department 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, community, and culture.

Asian American studies is a specialized field of intellectual inquiry in higher education that examines the diverse experiences of Asian-ancestry and Pacific Islander Americans, including their histories, communities, cultures, socioeconomic mobility, and political participations, and their relationships with ancestral homelands and other Asian diasporas.

Interdisciplinary scholarship has from the outset been the cornerstone of the field, but Asian American studies also seeks to interrogate disciplinary boundaries by adopting comparative American studies to focus on Asian Americans, and their histories, communities, cultures, socioeconomic mobility, and political participations, and their relationships with ancestral homelands and other Asian diasporas.

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The department recognizes its vital historical and continuing linkage with the struggle for the civil rights and social justice of people of color and other disadvantaged social groups. Faculty members are committed to offering a curriculum that embraces the historical and contemporary realities of Asian Americans and Pacific Islanders, supporting research that promotes equality, encouraging community services, and making higher education more inclusive and responsive to American diversity.

The department equips students with theoretical, methodological, and practical knowledge, as well as analytical and communication skills needed to be successful in American society while creating a nurturing environment for faculty, students, and staff in their interdepartmental and extramural collaborations and activities. It aims to build on UCLA's preeminence and to strengthen its position as the national leader in Asian American studies.

The department also is enhanced by its connection to and interaction with the Asian American Studies Center. Established in 1969, the center has been widely recognized as one of the world's top Asian American studies institutions.

The undergraduate and graduate programs aim to enhance and infuse the UCLA curriculum with an interdisciplinary understanding of the Asian American experience to promote innovative research and cutting-edge scholarship in Asian American studies, provide leadership training to individuals interested in working in Asian American communities, and prepare students for advanced study in the humanities, social sciences, and professional disciplines.

**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 or better is required for admission to the major.

**Preparation for the Major**

**Required:** Asian American Studies 10 or 10W, and 20.

**Transfer Students**

Transfer applicants to the Asian American Studies major with 90 or more units must complete as many of the following courses as possible prior to admission to UCLA: two lower division Asian American studies courses or two courses that focus on Asian Americans, and one year of proficiency in an Asian language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** A total of 13 upper division courses, including one research methods course, two Asian American theme courses, two Asian American or Pacific Islander populations and communities courses, and five Asian American studies elective courses. In addition, three upper division courses (12 to 15 units) must be taken from disciplines outside Asian American studies, including (1) one race, ethnicity, or interethnic relations course, (2) one gender and/or sexuality course, and (3) one nonlanguage course on the history, culture, political, and/or social institutions of Asia. The three additional courses must be selected from the approved list of courses available in the Student Advising Office each term or at http://www.asianam.ucla.edu.

Students must also (1) demonstrate proficiency equivalent to the completion of an elementary one-year course of study in an Asian language prior to graduation or (2) take one of the following writing courses: Asian American Studies 101, English Composition 100W, 129A through 129D, 131A through 131D, 132A through 132D.

No more than 12 graded units of Asian American Studies 195, 197, and 199 may be applied toward the major. Courses 192 and 196 may not be applied toward the minor. Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and each must be at least 4 units.

**Honors Program**

**Admission**

The honors program is open to junior and senior Asian American Studies majors who have (1) 90 or more total units, (2) a grade-point average of 3.5 or better in upper division Asian American studies courses and an overall cumulative GPA of 3.0 or better, and (3) completed two lower division Asian American studies courses and one upper division research methods course selected from a list maintained in the Student Advising Office. Applications must be submitted no later than the end of the fifth week of classes during Winter Quarter each academic year. For application forms and further information, contact the undergraduate counselors.

**Requirements**

Honors students must take Asian American Studies 198A during Spring Quarter of the junior year. During Fall and Winter Quarters of the senior year, they take courses 198B and 198C, in which they write a thesis or its equivalent under the direction of a faculty member.

**Asian American Studies Minor**

The Asian American Studies minor is designed for students who wish to gain understanding of and competence in Asian American studies.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed two lower division Asian American studies courses, and file a petition with the undergraduate councilors, Asian American Studies Center, 3230 Campbell Hall.

**Required Lower Division Courses (10 units):**

Asian American Studies 10 or 10W, and 20.

**Required Upper Division Courses (20 units):**

One Asian American theme course, one Asian American or Pacific Islander populations and communities course, and three Asian American studies elective courses.

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

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

Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa /library/pgmintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Asian American Studies offers the Master of Arts (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

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

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. Satisfies Writing II requirement. Letter grading.

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

30. Asian American Literature and Culture. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 30W. Multidisciplinary introduction to Asian American literature and culture, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. P/NP or letter grading.

30W. Asian American Literature and Culture. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H as a Second Language 36. Not open for credit to students with credit for course 30. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. Satisfies Writing II requirement. Letter grading.

40. Serve People: Asian American Community-Based Learning. (5) Lecture, three hours; discussion, one hour. Multidisciplinary examination of Asian American social movements and their connections to issues such as migration, race, and community formation within framework of community-based service learning. P/NP or letter grading.

50. Asian American Women. (5) Lecture, three hours; discussion, one hour. Multidisciplinary examination of Asian American social movements and their connections to issues such as migration, race, and community formation within framework of community-based service learning. P/NP or letter grading.

50W. Asian American Women. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H as a Second Language 36. Not open for credit to students with credit for course 50. Multidisciplinary examination of Asian American social movements and their connections to issues such as migration, race, and community formation within framework of community-based service learning. P/NP or letter grading.

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

Upper Division Courses

101. Academic Writing in Asian American Studies. (4) Lecture, three hours; Requisites: courses 10 or 10W, and 20. Designed for advanced junior/senior Asian American Studies majors and minors. Advanced study of academic writing in specific Asian American subfields, with focus on development and analysis of proposals, reports, and academic journal articles (including literary essays and/or social sciences research papers) in common discursive forms, stylistic patterns, and research practices in given subfield. Themes and focus vary by term. Independent research related to course objective may be pursued with guidance from instructor. Sharing and critiquing of other student works in progress. P/NP or letter grading.

103. Social Science Research Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to fundamentals of conducting social research with an emphasis on gaining experience in using some research methods and exercises in evaluating nature and quality of scientific research on Asian American issues. P/NP or letter grading.

104A. Field Studies Methods in Asian Pacific Communities. (4) Lecture, three hours. Preparation: one course from 101 through M191F. Development of community profiles on Asian Pacific American communities; students choose, using various field studies techniques of data collection. P/NP or letter grading.

104B. Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requisite: course 104A or another Asian American studies course (except 199). Integrates academic and empirically based work by providing students challenge of performing public service and community work in Asian Pacific or other multicultural communities, and of bringing their ongoing internship experiences back to classroom. P/NP grading.

105. Historical Research Methods. (4) Seminar, three hours. Requisite: course 10. Introduction to methods used to locate and analyze source materials for research on Asian American history. Historians have used wide range of sources that may include archival materials, oral testimony, material culture, and more. P/NP or letter grading.

108. Policy, Planning, and Community. (4) Seminar, one hour. Requisite: one course from 101 through M191F. Exploration of planning and policy making as it relates to Asian American communities. Geographic information systems to be used in some combination of research. P/NP or letter grading.

111. Asian Americans and War. (4) Lecture, three hours. Interdisciplinary examination of role that war has played in history and culture of Asian Americans, drawing on diverse set of materials ranging from Asian American literature, Hollywood movies, and wartime propaganda to political speeches, Supreme Court decisions, and protest culture. To evaluate relationship between Asian American communities and geopolitical conflicts from late-19th century to contemporary period. P/NP or letter grading.

112A. Historical Survey of Asian American Literature. (5) (Same as English M102A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Asian American literature from pre-1800 period. Issues include immigration, diaspora, generational conflict, appropriation of cultural traditions, ethnicity/gender formation, immigration, diaspora, and social movement. Works by such authors as Edith Eaton, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

112B. Contemporary Asian American Literary Issues and Criticism. (5) (Not the same as course 112B due to Fall Quarter 2011.) (Same as English M102B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of post-1980 Asian American literature that explores key literary and critical issues, such as race and ethnicity, aesthetics and ethics, cultural work and immigrant labor, kinship and sexual identity, mobility, and social movement. Works by such authors as Edith Eaton, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

113. Asian Americans and Law. (4) Lecture, four hours. Survey of major federal and California case and legislative law directed specifically toward Asian Americans from 1850 to World War II and incarcera- tion. Major subject areas include anti-Asian labor legis- lation, illegal prohibitions against Asians’ right to test- tify, Executive Order 9066, and educational opportunity for Asians. P/NP or letter grading.

114. Asian American Education and Schooling. (4) (Same as Education M103.) Seminar, four hours. Examination of existing body of research from various disciplines on Asian American educational experiences. Letter grading.

115. Women and Community in Asian American Studies. (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.

116. Asian American Social Movements. (4) (Same as Labor and Workplace Studies M116.) Lecture, three hours. Designed for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement, community, and political and social relevance to current issues. How movement participants linked struggle for change with own personal transformation and growth. P/NP or letter grading.


118. Asian American Religious History. (4) Lecture, four hours. Examination of religion as thematic thread within context of Asian American history, primarily during period before World War II. Basic grounding in early Asian American history through exploration of role of religion in various communities. P/NP or letter grading.

119. Asian American and Pacific Islander Labor Issues. (4) (Same as Labor and Workplace Studies M119.) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities, with emphasis on key role that Asian and Pacific Islander American students play in supporting roles of low-income immigrants. P/NP or letter grading.


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

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

122B. Gender and Film in Pacific. (4) Lecture, three hours. Requisite: course 112A. Focus on role of film in Pacific Islands during 20th century, with attention to politics of gender, history, and representation, to engage students in textual and visual readings of feature-length films about Pacific Islands, film screenings, and guest speakers, with focus on aesthetic, cultural, economic, gendered, historical, and political dimensions of films. P/NP or letter grading.
123. Cultures of/against Empire. (4) Seminar, three hours. Critical concepts and cultural practices linking Asian American study of U.S. cultures of imperialism. Course begins with premise that Asian American studies contribute distinctly to contemporary scholarship on U.S. empire. Examination of political and intellectual coalitions toward which Asian American studies builds. Emphasis on works that approach study of empire through comparative racial formation, postcolonialism, transnationalism, and study of gender and P/NP or letter grading.

M129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Same as Community Health Sciences M140.) Lecture, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both care delivery and research for these populations. Letter grading.


M130B. Chinese Immigrant Literature and Film. (4) (Same as Chinese M153 and Comparative Literature M153.) Lecture, three 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 social environment. P/NP or letter grading.


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


141A. Asian American and Pacific Islander Leadership Development Project Part I: Leadership (4) Lecture, three to four hours. Limited to juniors/seniors. First term of two-term series on leadership development, with focus on Asian American and Pacific Islander communities in Los Angeles. Examination of different approaches and strategies to community building and maintenance. P/NP or letter grading.

142A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar. Three hours. Introduction to ethnocommunications theory and methodology; development of diverse peoples and cultures to reclaim and promote their histories. Viewing of films from mainstream and alternative independent media for critique and discussion and basic instruction in use of digital video technology to present cultural communities, and experiences. P/NP or letter grading.

142B. Ethnocommunications II: Intermediate Creating Community Media. (4) Laboratory, three hours. Continuing instruction in use of digital technology and concepts and methods of Asian Pacific American community preservation. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition, lighting, sound recording, interviewing techniques, and editing. Completion of community profile project required. P/NP or letter grading.

142C. Ethnocommunications III: Advanced Creating Community Media. (2 to 4) (Formerly numbered 1078B.) Laboratory, two to three hours. Enforced prerequisite: course 142B. Advanced instruction in use of digital technology and concepts and methods of Asian Pacific American community preservation. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition, lighting, sound recording, interviewing techniques, and editing. Completion of community profile project required. P/NP or letter grading.

142D. Visualizing History: Introduction to Creating Community Media. (4) Laboratory, three hours. Rapid developments in video and digital technologies have made it possible for previously neglected or submerged communities to visually document issues around their migration, settlement, cultural imagery, and artistic expressions. Introduction to ethnocommunications theory and methodology. Students conduct oral histories, family histories, research on immigration and immigrant rights, and poetry and spoken word about immigrant experiences, and work to collectively develop an oral history project for immigrant students in higher education. P/NP or letter grading.

M143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawai‘i. (4) Lecture, three hours; discussion, one hour. Critical examination of historical and contemporary experiences of various people in Hawai‘i. Investigation of historical, economic, and political contexts of migration and relations between indigenous peoples, migrants, and existing racial and ethnic groups. P/NP or letter grading.

M143C. Identity and Ethnic Relations in Hawai‘i. (4) (Formerly numbered 143C.) (Same as Anthropology M177P.) Lecture, three hours; discussion, one hour. Continuing exploration of ethnic representation in various cultural forms and social contexts in Hawai‘i. Overview of theoretical approaches to and basic concepts in study of ethnic identity and ethnic relations. Discussion of historical and contemporary aspects of ethnic identity and ethnic relations in Hawai‘i. Given in Hawai‘i. P/NP or letter grading.

150A. Culture, Media, and Los Angeles. (4) (Same as Afro-American Studies M102 and Honors College M102.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary issues, specifically of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.


M163. Investigative Journalism and Communities of Color. (4) (Same as Afro-American Studies M163.) Lecture, three hours. Role of investigative journalism in understanding intercultural cooperation and competition. Exploration of different perspectives on issues by comparing mainstream, ethnic, and alternative media coverage. P/NP or letter grading.

M164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Gender Studies M164A.) Lecture, four hours. Study of various forms of violence done on women not only in and of themselves but in light of larger systems of oppression, with focus on Filipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

165A. Race, Gender, Class. (5) (Same as Comparative Literature M175.) Seminar, three hours. Theoretical and literary readings explore three main aspects of social and cultural experience (race, gender, class) as separate but interconnected spheres affecting both minority and majority populations in U.S. Examination of these issues from comparative perspectives. Letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Chicana and Chicano Studies M156A and Labor and Workplace Studies M166A.) Seminar, three hours. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of student immigration in higher education, challenges facing undocumented immigrant students, and legislative and policy initiatives that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights, write poetry and spoken word about immigrant experience, and work to collectively develop and present an oral history project for immigrant students in higher education. P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Chicana and Chicano Studies M156A and Labor and Workplace Studies M166A.) Seminar, two hours. Requisite: course M166A. Expansion of research conducted by students in course M156A involving oral histories, research on immigration and indigenous rights, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

168. Student-Initiated Retention and Outreach Issues in Higher Education. (4) [Same as Afro-American Studies M118, African American Studies M118, and Chicana and Chicano Studies M118.) Lecture, four hours. Exploration of issues in outreach and retention of underrepresented students. Preparation and delivery of programming through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.

170. Transnational Perspectives on Asian America. (4) Lecture, three to four hours. Study of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to gender, class and caste, sexuality, race, and economic liberalization in South Asia, and its impact on Asian American communities. May be repeated for credit. P/NP or letter grading.

M172C. Transnational Bollywood. (4) Formerly numbered 172C.) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese cinema and literature not required. Critical and historical examination of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to gender, class and caste, sexuality, race, and economic liberalization in South Asia, and its impact on Asian American communities. May be repeated for credit with topic change. P/NP or letter grading.

M173. Topics in Vietnamese Cinema and/or Literature. (4) [Same as Vietnamese M155.) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese is not required. Critical and historical examination of literary and/or filmic representations connected to social practices such as emigration, nation, diaspora, and globalization. Original language course materials available for interested students. P/NP or letter grading.


M176D. Special Courses in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Lecture, three hours; discussion, one hour (when scheduled). May be repeated for credit with topic change. P/NP or letter grading.

187D. Special Courses in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. May be repeated for credit with topic change. P/NP or letter grading.

191D. Topics in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement politics, and gender and queer politics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191F. Topics in Asian American Literature. (5) [Same as English M191F.) Seminar, three to four hours. Limited to juniors/seniors. May be repeated for credit. P/NP or letter grading.
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196. Research Apprenticeship in Asian American Studies. (2 to 4) Tutorial, three hours per week. Unit credit until juniors/seniors. Entry-level research apprenticeship for upper division students under guidance of faculty mentor to learn skills and techniques. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. Letter grading.

197. Individual Studies in Asian American Studies. (2 to 4) Tutorial, three hours. Requisites: course 10 or 20 or comparable knowledge in Asian American studies, 3.0 grade-point average or better. Limited to juniors/seniors. Directed reading of scholarly work or supervised research between student and faculty member. No original research or project expected. Tandem guidance of master's degree matter required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

198A. Honors Research in Asian American Studies. (2 to 4) Tutorial, three hours. Requisite: course 10 or 20 or comparable knowledge in Asian American studies, 3.0 grade-point average or better. Limited to juniors/seniors. Directed reading of scholarly work or supervised research between student and faculty member. No original research or project expected. Tandem guidance of master's degree matter required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Asian American Studies. (2 to 4) Tutorial, three hours. Preparation: 3.0 overall grade-point average. Requisites: courses 10 or 20 and 20 or comparable knowledge in Asian American studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses


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


200D. Asian American Literature and Culture. (4) Lecture, three hours. Examination of questions arising from the intersection of literary and cultural criticism from mid-1980s to 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.

M215A-215B. Asian American Jurisprudence. (1 to 8 each) (Same as Law M315.) Lecture, three hours. Course M215A is enforced requisite to 215B. Designed for graduate students. Through judicial opinions, commentary, and historical readings, examination of how American law has shaped demographic, economic, and legal aspects of being an Asian American. Emphasis on social control, order, and surveillance in Asia and Pacific. S/U or letter grading.

221. Coloquialism and Law in Pacific. (4) Seminar, three hours. Reading seminar on broad topics of colonialism and law. Survey of anthropological, historical, and legal studies indicating ways in which colonialism and law operate as methods of social control, order, and surveillance in Asia and Pacific. S/U or letter grading.


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

M260. Topical Issues in Asian American Literature. (4) (Same as English M260A) Seminar, three hours. Designed for graduate students. Examination of and research into writing 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 so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.


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

375. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Preparation: apprentice person employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance of master's degree person. May be repeated for total of 11-course requirement for M.A. May be repeated for credit. S/U or letter grading.

490. Writing Workshop for Graduate Students. (2) Lecture: one hour; discussion: one hour. Practice in written 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 or letter grading.

495. Supervised Teaching of Asian American Studies. (4) Seminar, three hours. Preparation: appointment as teaching assistant in Asian American studies. Designed for graduate students. Required of all new teaching assistants. Special course for teaching assistants designed to deal with problems and techniques for teaching introductory Asian American studies courses. Unit credit may be applied toward full-time equivalence but not toward course requirements for M.A. S/U grading.


Asian Languages and Cultures
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Ben Befu, Ph.D.
Joseph R. Shih, Ph.D.
Dong Soon Im and Mi Ja Im
Endowed Professor of Humanities

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Chair

Professors
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Robert E. Buswell, Ph.D. (Irving and Jean Stone
Endowed Professor of Humanities)
John B. Duncan, Ph.D.
Shoichi Iwasaki, Ph.D.
Stephanie W. Jamison, Ph.D.
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Thu-huong Nguyen-Vo, Ph.D.
Sung-deuk Oak, Th.D. (Dong Soon Im and Mi Ja Im
Endowed Professor of Korean Christianity)
Undergraduate Study


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

Students considering a major or minor in the department should consult 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.alc.ucla.edu.

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 or http://www.alc.ucla.edu for more information).

The examination determines which course is most appropriate for the student's current level of proficiency. Students who have obtained college credit for Asian language courses may not repeat those same courses for credit. Prospective majors who place out of the upper division modern language requirement are expected to substitute an equivalent number of other units to be selected in consultation with the departmental undergraduate adviser.

Language Acquisition Courses

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

Asian Humanities B.A.

Preparation for the Major

Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 6, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60. Transfer students to the Asian Humanities major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/transfer_adm.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Three upper division language courses in one Asian language offered by the department and eight upper division electives within the department, including at least one course from at least four of the following areas: China, Japan, Korea, South Asia, or Southeast Asia.

Asian Religions B.A.

Preparation for the Major

Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 6, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60.

Transfer Students

Transfer applicants to the Asian Religions major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and one year of Sanskrit, and one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/transfer_adm.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Three upper division language courses in one Asian language offered by the department; six upper division Asian religions courses within the department, including at least one course each concerning religions in China, Japan, Korea, and either South Asia or Southeast Asia; and two electives within the department.

Chinese B.A.

Preparation for the Major

Required: Chinese 6 or 10 or equivalent, and 50 or M60 or M60W.

Transfer Students

Transfer applicants to the Chinese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/transfer_adm.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Three upper division language courses in one Asian language offered by the department; six upper division Asian religions courses within the department, including at least one course each concerning religions in China, Japan, Korea, and either South Asia or Southeast Asia; and two electives within the department.
to admission to UCLA: two years of Chinese and one Chinese civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Five upper division Chinese language courses (of which at least two must be in the premodern language or texts), one upper division Chinese literature course, three upper division electives on China, and two upper division electives within the department outside of China.

Japanese B.A.

Preparation for the Major

Required: Japanese 6 or 10 or equivalent, and 50 or 70.

Transfer Students

Transfer applicants to the Japanese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Japanese and one Japanese civilization or images of Japan course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Five upper division Japanese language courses in modern or premodern language or texts, one upper division Japanese literature course, three upper division electives on Japan, and two upper division electives within the department outside of Japan.

Korean B.A.

Preparation for the Major

Required: Korean 6 or 10 or equivalent, and 50 or M60.

Transfer Students

Transfer applicants to the Korean major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Korean and one Korean civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Five upper division Korean language courses, one upper division Korean literature course, three upper division electives on Korea, and two upper division electives within the department outside of Korea.

Study Abroad

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

Honors Program

Admission

The honors program is open to departmental majors with a 3.5 grade-point average in upper division courses in the major and a 3.0 overall GPA. Students should apply for admission by Spring Quarter of their junior year and, at the time of admission, must have completed at least two upper division courses in their major. For application forms and further information, contact the departmental undergraduate adviser.

Requirements

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

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

The upper division language courses provide students with advanced skills in speaking, aural comprehension, reading, and writing an Asian 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 all lower division requirements for the minor, and consult with the departmental undergraduate adviser.

Required Lower Division Courses (10 units):

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

Asian Languages and Cultures Minor

The Asian Languages minor is designed to recognize a serious commitment to the study of 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 an Asian language. The lower division survey course in civilization or religious tradition 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 an Asian 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 all lower division requirements for the minor, and consult with the departmental undergraduate adviser.

Required Upper Division Courses (20 units):

Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies).

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

No more than 4 units may be applied toward both this minor and a major or minor in another department or program, and at least 16 units must be taken in residence at UCLA.

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

120. Languages and Cultures of East Asia. (4) Lecture, three hours; discussion, one hour. Required preparation: Chinese 3 or 50 or Japanese 3 or 50 or Korean 3 or 50. Comparative perspective on three major East Asian languages — Chinese, Japa- nese, and Korean — and how they differ in terms of linguistic features, historical development, and cultural settings in which these three languages are used. P/NP or letter grading.

120FL. Readings in East Asian Languages. (2) Seminar, two hours. Requisite: Chinese 6 or 6A or 6C or Japanese 6 or Korean 6 or 6A. Enforced corequisite: course 120. Additional work in major East Asian lan- guages enriches students’ knowledge of course 120, including reading, writing, and other exer- cises in Chinese, Japanese, and Korean. P/NP or let- ter grading.

121. Field Methods in Asian Languages and Cul- tures. (3) (Formerly numbered Southeast Asian 121.) Lecture, three hours. Recommended preparation: at least one year of one Asian language. Examination and application of techniques for understanding language and culture acquisition by working directly with native speaker of Asian language and/or through available materials. One language per term to be se- lected from languages spoken in Southeast Asia, South Asia, and East Asia. May be repeated for cred- it. P/NP or letter grading.


151. Buddhist Literature in Translation. (4) Lec- ture, three hours. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Readings from variety of Buddhist literature of Indic and non-Indic origin, with emphasis on key Buddhist themes and critical interpretations of Asian religious texts. Letter grading.

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

161. Topics in Asian Religions. (4) Lecture, three hours. Knowledge of Asian languages not required. In-depth examination of selected topics in one or more religious traditions of Asia. Topics vary but may include death, gender, and state and religion. May be repeated for credit with topic change. Letter grading.

162. Buddhist Meditation Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice of meditation in Buddhism, with emphasis on Theravada and Zen schools. Topics include various typologies of meditation, symbiotic relationship be- tween meditation and soteriology, and processes by which doctrinal innovation prompts changes in medi- tative praxis. Letter grading.

163. Buddhism across Boundaries. (4) Lecture, two hours; discussion, one hour. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Investigation of various themes in develop- ment of Buddhist traditions across historical periods as well as national and cultural boundaries, including issues of praxis, politics, and translation. Letter grad- ing.


170. Approaches to Study of Religion. (4) Semi- nar, three hours. Investigation of many ways in which religion and religions may be studied, including an- thropological, sociological, psychological, phenome- nological, political, reductionist, and other approach- es. Readings of primary and secondary sources of methodological scholarship. Concurrently scheduled with course C270. Letter grading.

190. Research Colloquia in Asian Languages and Cultures. (1) Seminar, one hour. Corequisite: course 199A or 199B or 198C or 195. Designed to bring to- gether advanced undergraduate students undertaking individual supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one su- pervising faculty member. May be repeated for credit. P/NP grading.

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

191B. Variable Topics Research Seminars: Bud- dhist Studies. (4) Seminar, three hours. Limited to juniors/seniors. Research seminar on selected topics in Buddhist studies. Reading, discussion, and devel- opment of culminating project. May be repeated for credit. P/NP grading.


193. Speaker Series Seminars: Asian Languages and Cultures. (4) Tutorial, one hour; fieldwork, eight hours. Limited to under-graduate students. Introduction to latest scholar- ship in field of Asian studies. Attendance at selected scholarly presentations required, as well as sessions with faculty adviser to discuss presentations and pub- lished works of speakers. May be repeated for credit. P/NP grading.

195. Community Internships in Asian Languages and Cultures. (4) Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors. Internship in super- vision of community cultural or organizational setting. Students meet on regular basis with instructor and provide periodic journal reports of their experi- ence. Final paper that combines academic research and experience gained from supervised work is required. Individual contract with supervising faculty member required. P/NP or letter grading.


199. Directed Research in Asian Languages and Cul- tures. (1 to 8) Tutorial, to be arranged. Requisite: prior course or related work in discipline. Led by one su- pervising faculty member. In Progress grading (credit to be given only on completion of course 198C). 198C. Enforced requisite: course 198B. Completion of research developed in courses 198A, 198B. Presen- tation of honors project to supervising faculty mem- ber. 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, including 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.


203. Variable Topics in East Asian Linguistics. (4) Seminar, three hours. Advanced course that explores topical issues through critical readings of current research on East Asian languages and in-depth analysis of linguistic data. Topics include linguistic structure, communicative function, pragmatics, language, society, and culture, and language change. May be repeated for credit. S/U or letter grading.


205. Variable Topics in East Asian Culture and History. (4) Seminar, three hours. Selected topics in East Asian culture and history, with focus on China, Japan, and Korea. May be repeated for credit with topic change. S/U or letter grading.

210. Proseminar: Cultural and Comparative Studies. (4) Seminar, three hours. Designed for graduate students. Introduction to theoretical topics relevant to comparative study of East Asian culture and history. Readings include Western theoretical works toward degree requirements. S/U or letter grading.

215. Seminar, three hours. Designed for graduate students. Readings and discussion of major historical trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annals school and cultural history, political histories, gender, space, and memory, colonial and postcolonial histories, subaltern, and modernity and Asia. S/U or letter grading.

220A-220B. Seminars: Topics in Cultural Studies. (4-4) Seminar, three hours. Complements course 2210. Further investigation of methodology and materials of cultural studies in connection with specific topics selected by instructors. May be repeated for credit. In Progress (220A) and letter (220B) grading.

222A-222B. Seminars: Corpus Linguistics. (4-4) Seminar, three hours. Construction and exploitation of computerized language corpora for studying issues in areas such as lexicology, discourse grammar, language change and variation, language learning, and teaching methodology. Special issues in working with East Asian language corpora. In Progress (222A) and S/U or letter (222B) 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 literary theory that are brought to fore by reading of literature from or about East Asia. Readings from both Western and Eastern theorists; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.

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


245A-245B. Seminars: Position of Modernity in East Asian Literature. (4-4) Seminar, three hours. Preparation: at least five years of one East Asian language. Designed for graduate students. Course 245A concerned with conceptual architecture and archaeology of modernity, with readings largely from European sources. In-class debate probes relevance of these readings to East Asianists. Focus on Asian writings in course 245B. In Progress (245A) and letter (245B) grading.


255. Topics in Southeast Asian Literature and/or Cinema. (4) Seminar, three hours. Knowledge of one Southeast Asian language recommended but not required. Theoretical concerns raised by works from Southeast Asia, one Southeast Asian nation, and/or Southeast Asian diasporas. Critical and historical examination of literary and/or film representations connected to practices of empire, nation, diaspora, and globalization. May be repeated for credit. S/U or letter grading.


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

270. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenom- nological, political, reductionist, and other approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170. Letter grading.

281A-281B. Field Methods for Study of East Asian Oral Literature. (4-4) Seminar, three hours. Description and evaluation of modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event, providing hands-on experience in field research methods. Consideration of approaches ranging from written transcription and textualization to audio and video presentations. In Progress (281A) and S/U or letter (281B) grading.

282. Japan in Age of Empire. (4) Same as Anthropology M276 and History M286.) Seminar, three hours. Designed for graduate students. Since late 19th century, Japan expanded its empire into East and Southeast Asia. Coverage of that period and ray 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.

295. Graduate Student Colloquium. (4) Review group meeting, three hours. Designed to provide graduate students in Asian studies with opportunity to present their research to other students and faculty members. S/U grading.

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

299. Independent Study. (2 to 6) Tutorial, to be arranged. Designed for graduate students. Guided research and writing of research paper. May be repeat- ed, but only 4 units may be applied toward M.A. de- gree. May not be applied toward Ph.D. degree. S/U or letter grading.

301. Teaching East Asian Language as Foreign Language. (4) Lecture, four hours. S/U or letter grading.

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

495. Asian Languages at College-Level. (2) Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures or South and Southeast Asian languages and cultures. Study in team-teaching, teaching methodology, developing course materials, and testing. Participation in peer observations and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

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

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

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

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


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597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4 to 10) Tutorial, to be arranged. Grading: S/ U.

598. Research for and Preparation of M.A. Thesis. (4 to 6) Tutorial, to be arranged. Maximum of 8 units may be applied toward M.A. degree requirements. Grading: S/ U.


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. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills — speaking, listening comprehension, reading, and writing. P/NP or letter grading.

2. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Recommended preparation: ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

3. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 1A. P/NP or letter grading.

4. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 3 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Training in all four basic language skills (speaking, listening, 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 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Chinese for Advanced Students. (5) Lecture, five hours. Enforced requisite: course 4A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4A. P/NP or letter grading.


8. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced requisite: course 5C or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. P/NP or letter grading.

9. Intermediate Modern Chinese for Advanced Students. (5) Lecture, five hours. Enforced requisite: course 5A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Completion of course 5C is equivalent to completion of course 6. P/NP or letter grading.

10. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 2A with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 2A. P/NP or letter grading.

11. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1A, 2A, and 3A. Designed for students who already have some listening and speaking skills in Mandarin Chinese but do not have any reading and writing skills and for students who speak Chinese dialect other than Mandarin at home and have some knowledge of Chinese characters. 10 hours can count for a basic Chinese course. Coverage of listening, speaking, reading, and writing skills. Offered in summer only. P/NP or letter grading.

12. Intermediate Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 3, 3A, or 4A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. 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. P/NP or letter grading.

13. Advanced Modern Chinese for Advanced Students. (5) Lecture, five hours. Enforced requisite: course 3A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at intermediate levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

50. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50W. Knowledge of Chinese not required. Introduction to most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and early Chinese scientific and technological innovation. P/NP or letter grading.

50W. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 50. Knowledge of Chinese not required. Introduction to most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and early Chinese scientific and technological innovation. Satisfies Writing II requirement. Letter grading.

M60. Introduction to Chinese Religions. (5) (Formerly numbered 60A) (Same as Religion M60B) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. P/NP or letter grading.

M60W. Introduction to Chinese Religions. (5) (Formerly numbered 60W) (Same as Religion M61W) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Satisfies Writing II requirement. Letter grading.

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

70W. Classics of Chinese Literature. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 70. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

97. Variable Topics in Chinese Culture. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 97. Prior knowledge of Chinese culture, literature, or language not required. Variable topics course covering many different aspects of Chinese culture. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/ NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Modern Chinese. (4-4-4) Lecture, two hours; discussion, two hours. Enforced requisite: course 6, 6A, or 10 with grade of C or better or Chinese placement test. Course 100A with grade of C or better or Chinese placement test is enforced requisite to 100B; course 100B with grade of C or better or Chinese placement test is enforced requisite to 100C. Third-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Materials selected from contemporary Chinese publications, with emphasis on social sciences. Texts analyzed for their linguistic features and social and cultural background. Readings, compositions, informal debates on topical issues, and oral presentations. P/NP or letter grading.
Heritage Speakers. (4-4-4) Course 100D with grade of C or better or Chinese placement test is enforced requisite to 100E; course 100E with grade of C or better or Chinese placement test is enforced requisite to 100F. Third-year Chinese for heritage speakers. 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. Offered in summer only. P/NP or letter grading.

100L. Advanced Modern Chinese: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 6 or 10 with grade of C or better or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 100A, 100B, and 100C. 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. Offered in summer only. 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 100 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. Each course may be taken independently for credit. Letter grading.

102A. Chinese for International Business. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Designed to improve student language skills in service of business practice and ground language learning in authentic social cultural settings. Oral and written business communication, social etiquettes in business conduct, Chinese economic and business climate, business law and regulations, resources and environment, and business case studies. May be taken independently for credit. Letter grading.

102B. Advanced Chinese for International Business. (3-4-3) Lecture, three hours; discussion, four hours. Enforced requisite: course 102A. Doing business with China and understanding Chinese economy and business conduct requires advanced level of Chinese language proficiency and deep understanding of Chinese society and culture. Designed to improve student language skills in service of business practice and ground language learning in authentic social cultural settings. Oral and written business communication, social etiquettes in business conduct, Chinese economic and business climate, business law and regulations, resources and environment, and business case studies. May be taken independently for credit. Letter grading.

103. Topics in Chinese Language and Culture. (2 to 4) Lecture, three hours. Chinese language and culture for special purposes. May be repeated for credit. Offered in summer only. P/NP or letter grading.

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

109. Advanced Tutorial Instruction in Chinese. (2) Tutorial, two hours; requisite: course 100C or Chinese placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Chinese. May be repeated for credit. P/NP or letter grading.

110A-110B. Introduction to Classical Chinese. (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Course 110A is enforced requisite to 110B, which is enforced requisite to 110C. Grammar and readings in selected premodern texts. P/NP or letter grading.

120. Introduction to Chinese Linguistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 6, 6A, 6C, or 10. Introduction to Chinese sound system, writing system and its reform, regional differences, major structural features, and language in society and in cultural practices. Letter grading.

130A-130B. Readings in Modern Chinese Literature. (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or Chinese placement test. Readings and discussion of works of modern Chinese literature. Each course may be taken independently for credit. Letter grading.

131. Writing from Margin: Global Politics of Sinophone Literature. (4) Lecture, three hours; discussion, one hour. Requisite: course 100 or Chinese placement test. Readings and discussion of works of premodern Chinese literature. Each course may be taken independently for credit. Letter grading.

138. Travel Writing in Premodern China. (4) (Formerly numbered 130B) Lecture, three hours; discussion, one hour. Recommended preparation: course 40. Exploration of travel writing in China, with focus on English translations of works by native writers and by foreign visitors. Concurrently scheduled with course C238B. Letter grading.

139. Gardens in China. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 50. Interdisciplinary survey of historic and literary gardens in China, with focus on English translations of texts by native writers and recent Western scholarship. 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 M171 or M171C, M171D, M171E. Knowledge of Chinese not required. Lectures and reading of representative works from 1900 to present in English translation. Letter grading.

152. Topics in Contemporary Chinese Literature and Culture. (4) Lecture, two hours; discussion, one hour. Knowledge of Chinese not required. Investigation of various topics in contemporary Chinese literature and culture, including politics and poetics of Chinese postmodernism, nationalism, feminism, mass culture, and media. Letter grading.

M153. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M130B and Comparative Literature M171.) Lecture, three 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 and discussion of relevant issues. P/NP or letter grading.

154. Introduction to Chinese Cinema. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. Examination of relationship between culture and Chinese diaspora. Examination of film style and aesthetics, as well as contexts of industry, economics, politics, cultural and social history. May be repeated for credit with topic change. Concurrently scheduled with course C257. Letter grading.

155. Topics in Chinese Cinema. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. Critical study of films from China, Hong Kong, Taiwan, and Chinese diaspora. Examination of aesthetics, genres, directors and stars, other arts and media, and cultural and political histories. May be repeated for credit with topic change. P/NP or letter grading.

156. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours; discussion, one hour. Designed for seniors. Knowledge of Chinese not required. Examination of relationship between culture (art, literature, film) and society in Taiwan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C257. Letter grading.

157. Contemporary Chinese Popular Culture. (4) Lecture, three hours; discussion, one hour. Examination of various aspects of modern popular culture in China, Taiwan, and Hong Kong from cultural studies perspective. Genres and media include literature, print culture, cinema, martial arts films and fiction, television, radio, pop music, visual arts, fashion, advertising, and cyberculture. P/NP or letter grading.


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

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C175. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese culture is not required. Chinese thought is represented in texts of Zhou through early Han periods (circa 1000 to 100 B.C.E.), with focus on inventions of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other schools of thinkers. Concurrently scheduled with course C275. Letter grading.

176. Neo-Confucianism. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of movement to revitalize and reinterpret teachings of Confucius during Tang, Song, Yuan, and Ming dynasties, with consideration of both neo-Confucian philosophy and social action. Letter grading.

180. Chinese Mythology and Supernatural. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of corpus of traditional Chinese mythology, with focus on examples preserving older texts, later evolutions in dramatic and fictional works, and evidence from visual arts. Letter grading.

182. Archaeology of Early Global Trade and Piracy. (4) Lecture, three hours; discussion, one hour. Exploration of movement to revisit and reinterpret teachings of Confucius during Tang, Song, Yuan, and Ming dynasties, with consideration of both neo-Confucian philosophy and social action. Letter grading.

186. Archaeology in China. (4) Letter grading. Chinese not required. Based on studies of cultural, literary, and artistic artifacts, evidence from 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 schools of thinkers. Concurrently scheduled with course C275. Letter grading.

187. Chinese Etyymology and Calligraphy. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 3. Coverage of (1) development of Chinese writing system from pottery inscriptions to modern simplified forms and study of six scripts principles that were used to form Chinese characters and (2) aesthetic training of calligraphic art and its appreciation, with focus on ways of recognizing and interpreting cursive style, common form of handwritten. Letter grading.


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

197. Individual Studies in Chinese. (4) Tutorial, to be arranged. Limited to juniors/senior and graduate students who desire more advanced or specialized instruction in Chinese. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tutorial outside of class. May be repeated for credit. Letter grading.

Graduate Courses

200A. Research Methods in Chinese. (4) Seminar, three hours. Requisite: course 110C. Lectures and discussion designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliographic, biographical, and geographical sources; encyclopedias; anthologies; rare editions; illustrated matter and calligraphy. Letter grading.

208. Proseminar: Modern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of premodern Chinese literature, with focus on research tools in field and on scholarship on English or major languages, genres, periods, and authors. Letter grading.

200C. Proseminar: Modern Chinese Literature and Cinema. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Chinese literature and cinema, with focus on theoretical tools, historical knowledge, and critical trends. Letter grading.


202. Chinese Studies: Discipline, Methods, Debates. (2) (Same as History M280.) Seminar, two hours. Introduction to study of China as practiced in humanities and social science disciplines. S/U grading.


207A-C207B. Academic/Professional Chinese. (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 110A. Placement test. Intended to improve reading and writing skills in specific academic and professional subject areas for students who have studied general Chinese at advanced levels, with coverage of (1) Han and Tang and Song and Yuan and Qing Dynasties and modern Chinese (2) classical Chinese in English on major topics in Chinese history and (3) advanced level of academic and professional writing in Chinese. S/U or letter grading.

209. Issues in Sinophone Literature. (4) Seminar, three hours. Exploration of selected topics and issues in Sinophone literature, literature written in Sinic languages by ethnic minority writers in China, and literature written by those living outside China across world, especially in Malaysia, Taiwan, Singapore, and the Philippines. S/U or letter grading.


211A-211B. Seminars: Classical Chinese Poetry. (4-4) Seminar, three hours. Preparation: reading knowledge of literary Chinese, Topics rotate among major textual traditions and chronological periods. Emphasis on philological, critical, and historical approaches may be repeated for credit with consent of instructor. In Progress (211A) and letter (211B) grading.

212. Topics in Chinese Poetry. (4) Readings/discussion, three hours. Selected readings from classical poetic tradition, with focus on individual poets, themes, or other critical issues. May be repeated for credit with consent of instructor. Letter grading.

213A-213B. Chinese-Language Cinemas. (4-4) Seminar, three hours; film-viewing laboratory, two hours. Advanced topics in Chinese-language cinemas. Examination of theory and methodology, historiography, industry and institutions, style and aesthetics, major genres and artists, other arts and media, other cinematic traditions, and social contexts. May be repeated for credit with consent of instructor. In Progress (213A) and letter (213B) grading.

220A-220B. Theoretical Approaches to Chinese and Sinophone Cultures. (4-4) Seminar, three hours. Discussions to be framed by Western literary and cultural theory, investigating both challenges and limitations Western theory may pose for Chinese literary and cultural studies. Specific topics vary from year to year. In Progress (220A) and letter (220B) grading.

224A-224B. Seminars: Selected Topics in Chinese Linguistics. (4-4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese functional linguistics (discourse and grammar, corpus linguistics, sociolinguistics, language change). May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.

226A. Seminar: Topics in Chinese Applied Linguistics. (4-4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese applied linguistics (teaching Chinese as a second language, second language acquisition theories and practices). May be repeated for credit with consent of instructor. S/U or letter grading.

230A-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 (230A) and letter (230B) grading.

238. Travel Writing in Premodern China. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 50. Exploration of travel writing in China, with focus on English translations of works by native writers and by foreign visitors through centuries. Concurrently scheduled with course C138. Letter grading.

241A-241B. Heaven, Earth, and Monarchy in Ancient China. (4-4) Seminar, three hours. Preparation: working knowledge of classical Chinese. Close reading of chapters from Han dynasty collection of writings on forms of music, social interaction, education, marriage, and mourning in Zhou royal court, with discussion of topics in recent cultural sociology and anthropology. In Progress (241A) and letter (241B) grading.

242A-242B. Chinese Classics and Exegetical Traditions. (4-4) Seminar, three hours. Recommended preparation: command of literary Chinese. Reading and discussions of selections from traditional Chinese classic (Confucian Five Classics, others), with introduction to exegetical history, secondary scholar-
ship, and research methodology. Topics vary from year to year. May be repeated for credit. In Progress (234A) and letter (234B) grading.


245A-245B. Seminars: Traditional Chinese Narrative and Drama. (4-4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on generical, historical, and historical approaches. Topics in narrative selected from genres from Chou through Ch'ing periods. Topics in drama selected from t'sa-chü and ch'üan-ch'i. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

C250A. Lyric Traditions. (4) Lecture, three hours; discussion, one hour. Readings of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

256A-256B. Cultural Analysis. (4) Seminar, three hours. Issues in production and interpretation of literary works, as formulated by Chinese critics from classical age onward. Letter grading.

C257. Variable Topics in Culture and Society in Taiwan. (2) Lecture, two hours; discussion, one hour. Designed for graduate students. Knowledge of Chinese not required. Examination of relationship between art, culture, and society in Taiwan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C175. Letter grading.


265A-265B. Seminars: Chinese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) grading.

C275. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 B.C.E.-circa 220 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 186. Discussion and research on major problems about Chinese archaeology and different interpretations to most important archaeological finds, with emphasis on studies of Xia and Shang cultures and Xia and Shang dynasties. May be repeated for credit. In Progress (290A) and letter (290B) grading.

291. An Archaeological Process in China. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of Chinese archaeology to provide deeper understanding of formulation of conceptual categories of archaeologists of early China, and to motivate skills related to Chinese culture, such as beginnings of Chinese civilization and Chinese dynastic history. Other topics include cultural developments of ancient and medieval China. May be repeated for credit. In Progress (291A) and letter (291B) grading.

297A. Seminar: Research Topics in Premodern China. (4) Seminar, three hours. Selected topics in premodern Chinese literature, history, or religion, with emphasis on textual readings and independent research. S/U or letter grading.

297B. Seminar: Research Topics in Modern Chinese and Sinophone Culture. (4) Seminar, three hours. Selected topics in modern Chinese and Sinophone culture, with major emphasis on independent research. S/U or letter grading.

Filipino

Lower Division Courses

1. Introductory Filipino. (5) Formerly numbered Southeast Asian 70A.) Lecture, two hours; discussion, three hours. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Filipino. (5) Formerly numbered Southeast Asian 70B.) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Intermediate Filipino. (5) Formerly numbered Southeast Asian 70C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

4. Intermediate Filipino. (5) Formerly numbered Southeast Asian 71A.) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Filipino. (5) Formerly numbered Southeast Asian 71B.) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Filipino. (5) Formerly numbered Southeast Asian 71C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

8. Elementary Filipino: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

Upper Division Courses

100A. Advanced Filipino: Reading and Writing. (Formerly numbered Southeast Asian 172A.) Lecture, three hours. Enforced requisite: course 6 with grade of C or better or Filipino/Tagalog placement test. Designed to move students with intermediate level of proficiency toward greater proficiency and fluency in reading, writing, speaking, and listening in Filipino language. Coverage of skills in effective use of language: description, narration, exposition, and argumentation. How to analyze different elements of writing and reading of pieces from several genres of contemporary Filipino writing. P/NP or letter grading.

109. Advanced Tutorial Instruction in Filipino. (2) Tutorial, two hours. Requisite: course 6 or Filipino/Tagalog placement test. Tutorial and graded independent study to help students develop advanced to superior proficiency in oral and written Filipino. May be repeated for credit. P/NP or letter grading.

130A. Filipino Short Story. (4) Formerly numbered Southeast Asian 175.) Lecture, three hours. Enforced requisite: course 6 or Filipino/Tagalog placement test. General background knowledge on how Filipino writers view themselves and society, historically and diasporically. Sample of short stories written in Filipino/Tagalog language with some written in English for purposes of contrasting rhetoric, themes, and sensibilities. P/NP or letter grading.


Hindi-Urdu

Lower Division Courses

1. Introductory Hindi-Urdu. (5) Formerly numbered Southeast Asian 40A.) Lecture, two hours; discussion, three hours. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Intermediate Hindi-Urdu. (5) Formerly numbered Southeast Asian 40B.) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Hindi-Urdu. (5) Formerly numbered South Asian 40C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Hindi-Urdu. (5) Formerly numbered South Asian 41A.) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. 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.

5. Intermediate Hindi-Urdu. (5) Formerly numbered South Asian 41B.) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. 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.

6. Intermediate Hindi-Urdu. (5) Formerly numbered South Asian 41C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. 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.
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Upper Division Course

109. Advanced Tutorial Instruction in Hindi-Urdu. (2) Tutorial, two hours. Requisite: course 6 or Hindi-Urdu placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Hindi-Urdu. May be repeated for credit. P/NP or letter grading.

Indonesian

Lower Division Courses

1. Introductory Indonesian. (5) Formerly numbered Southeast Asian 80A.) Lecture, five hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

2. Introductory Indonesian. (5) Formerly numbered Southeast Asian 80B.) Lecture, five hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

3. Introductory Indonesian. (5) Formerly numbered Southeast Asian 80C.) Lecture, five hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

4. Intermediate Indonesian. (5) Formerly numbered Southeast Asian 81A.) Lecture, five hours. Enforced requisite: course 3 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/NP or letter grading.

5. Intermediate Indonesian. (5) Formerly numbered Southeast Asian 81B.) Lecture, five hours. Enforced requisite: course 3 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/NP or letter grading.

6. Intermediate Indonesian. (5) Formerly numbered Southeast Asian 81C.) Lecture, five hours. Enforced requisite: course 5 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Indonesian. (4-4-4) (Formerly numbered Southeast Asian 182A-182B-182C.) Lecture, three hours. Requisite: course 6 with grade of C or better. Course 100A with grade of C or better is requisite to 100B. Preparation for more advanced study of specialized academic subjects, including but not limited to social sciences and humanities. Students are required to read authentic materials in Indonesian concerning various issues. P/NP or letter grading.

109. Advanced Tutorial Instruction in Indonesian. (2) Tutorial, two hours. Requisite: course 6 or Indonesian placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Indonesian. May be repeated for credit. P/NP or letter grading.

Japanese

Lower Division Courses

1. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/NP or letter grading.

2. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 2. P/NP or letter grading.

4. Intermediate Modern Japanese. (5) Lecture, five hours. Enforced requisite: course 3 or 8 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, and writing. Grammar reviews, vocabulary building skills, language learning skills, and sociocultural knowledge. P/NP or letter grading.

5. Intermediate Modern Japanese. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Japanese. (5) Lecture, five hours. Enforced requisite: course 5 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.


8. Elementary Japanese. Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Intensive course equivalent to courses 100A, 100B, and 100C. Learning Japanese language with emphasis on sociocultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotapes. Reading with focus on linguistic features, writing summaries and opinions, oral activities, and project work. P/NP or letter grading.

100D. Kanji and Grammar for Advanced Learners of Japanese. (4) Lecture, three hours. Enforced requisite: course 100C. Development of ability in kanji recognition/writing and Sino-Japanese vocabulary, as well as advanced grammar required for reading authentic Japanese text. Primarily for students with no kanji background prior to study of Japanese who wish to solidify and enhance firm knowledge in kanji and grammar before engaging in advanced reading materials used in courses 101A and 101B. Also suitable for heritage Japanese learners who need to acquire enough kanji knowledge before taking courses 102A and 102B. P/NP or letter grading.

100E. Spoken Japanese for Advanced Learners. (4) Lecture, three hours. Enforced requisite: course 100C. Development of ability in speaking and listening skills for students who need focused attention to these skills. Also suitable for graduate students who need to advance their public speaking ability. Not intended for those who are at higher level in these skill areas. Letter grading.

101L. Advanced Modern Japanese: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 6 or 10 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 100A, 100B, and 100C. Learning Japanese language with emphasis on sociocultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotapes. Reading with focus on linguistic features, writing summaries and opinions, oral activities, and project work. Offered in summer only. P/NP or letter grading.

101A-101B. Advanced Readings in Modern Japanese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100D 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 ad-


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4) Seminar, three hours. Enforced requisite: course 100C or 100I or Japanese placement test. Students who complete courses 102A and/or 102B may take Japanese 101 series or below. P/NP or letter grading.

103. Advanced Japanese for International Business. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 6 or 10 or Japanese placement test. Designed to improve skills in Japanese in context of business transactions. To be successful, business person, one must be equipped with advanced knowledge of oral and written communication skills as well as high degree of cultural understanding. Oral and written business communication, social etiquette in business conduct, Japanese economic and business systems, Japanese business law and regulations, resources and environment, and business case studies. P/NP or letter grading.

108FL. Special Studies: Readings in Japanese. (2) Seminar, two hours. Enforced requisite: course 100C or Japanese placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Japanese to augment work assigned in main course, including reading, writing, and oral exercises. May be repeated for credit. P/NP or letter grading.


130B. Introduction to Classical Japanese: Reading Proficiency. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 110A. Grammar and readings of selected premorden texts. 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 19th century to post-WWII. 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 1B. Survey of Japanese literature from 1955 to present. Knowledge of Japanese not required. Use of fiction and film to explore Japanese culture in postwar era in broad cross-disciplinary and cross-cultural context. P/NP or letter grading.


156. Literature and Technology. (4) (Same as Comparative Literature M176.) Lecture, three hours. Knowledge of Japanese not required. Examination of representation of technology in 20th-century fiction. Discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.


158. Love in Modern Japan. (4) Lecture, three hours. Examination of Japanese literary works (in English) and films that represent romantic love from late Taisho and early Showa periods. Various ways that nation (minzoku) was discussed in intellectual discourses of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course C221. Letter grading.

160A-160B-160C. Readings in Classical Japanese Literature. (4-4-4) Seminar, three hours. Enforced requisite: course 100C or 100I or Japanese placement test. Readings of works by modern Japanese writers. Each course may be taken independently for credit. Letter grading.

161. Religious Life in Modern Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Examination of relationship between culture (art, literature, film) and society in Japan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C259. P/NP or letter grading.


172. Fiction and Plays of Floating World. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 110A or Chinese 165 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.

173. Imperial Culture in Ancient Japan. (4) Lecture, three hours; discussion, one hour. Requisite: course 50. Knowledge of Japanese not required; basic knowledge of Japanese history assumed. Examination of formation of imperial-style state and its culture in Asuka, Nara, and Heian periods (7th- to 10th-century Japan). Literary genres in-
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clude myths, historical narrative, poetry, short tales, and diaries. Concurrently scheduled with course C273. Letter grading.


201A-201B. Introduction to Reading Japanese Academic Texts. (4-4) Lecture, three hours. Requisite: course 7 or 100A. Course 201A is requisite to 201B. Designed for graduate students. Introduction to modern Japanese-language academic texts, both prewar and postwar, with focus on oral presentation and early Showa texts. Knowledge of that nation (minzoku) was discussed in intellectual discourses of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course C260. Letter grading.

235A-235B. Seminars: Selected Topics in Modern Japanese Fiction. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.

240A-240B. Seminars: Selected Topics in Japanese Literature. (4-4) Seminar, three hours. May be repeated for credit. In Progress (240A) and letter (240B) grading.

241A-241B. Seminars: Japanese Classics. (4-4) Seminar, three hours. Prose and poetry from early times to 1868. May be repeated for credit with consent of instructor. In Progress (241A) and letter (241B) grading.


245A-245B. Seminars: Medieval Japanese Literature. (4-4) Seminar, three hours. Preparation: one year of classical Japanese. Selected readings in travel poetry, travel diaries, and other genres of Japanese travel literature of Heian, Kamakura, Nambokucho, and Muromachi periods. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.


250. Topics in Japanese Literature and Philosophy. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Discussion of philosophical topics such as experience, identity, value, and technology, in light of Japanese literary texts. Concurrently scheduled with course C150. Letter grading.

259. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours; discussion, one hour. Examination of relationship between culture (art, literature, film, and society) in Japan. Reading, art, and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C159. S/U or letter grading.


265A-265B. Seminars: Japanese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) grading.

270A-270B. Seminars: Japanese Ritual Arts. (4-4) Seminar, three hours. Reading knowledge of Japanese not required. Discussions and readings on ritual (semya) arts of Japan, comprising music, dance, storytelling, viewing, purification, divination, disguise, mimicry, and competitive as well as acrobatic acts, with special emphasis on religio-magical purposes and symbolic structure of these arts. In Progress (270A) and letter (270B) grading.

C271. Topics in Japanese Studies. (4) Lecture, three hours. 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 in-
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Korean

Lower Division Courses

1. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduc-
tion to standard spoken Korean and Korean writing, with emphasis on conversation. P/NP or letter grading.

2. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heri-
tage learners. Emphasis on four skills (spelling, grammar, reading, and conversation in modern Korean). Continuation of course 5A. Completion of course 6A is equivalent to completion of course 6. P/NP or letter grading.

6. Elementary Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Knowledge of Korean not required. General survey of diverse aspects of modern Korean culture within context of political, social, and economic histo-
ry. P/NP or letter grading.

M60. Introduction to Korean Religions. (5) Formerly numbered 60.) (Same as Religion M60C.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. General survey of history of religions in Korea — Shamanism, Buddhism, Confucianism, Daoism, Christianity, and some new religions — with focus on religious doc-
trines, practices, Korean characteristics, and social impacts. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Modern Korean. (4-4-
4) Lecture, five hours, discussions, course 6, 6A, or 10 with grade of C or better or Korean placement test. Course 100A with grade of C or better or Korean placement test is enforced requisite to 100B; course 100B with grade of C or better or Korean placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of courses 6/6A. Readings of modern prose and poetry, with emphasis on grammar and Sino-Korean. P/NP (undergraduates), S/U (graduates), or letter grading.

101A-101B-101C. Advanced Readings in Modern Korean. (4-4-4) Lecture, three hours. Enforced requisite: course 100C or Korean placement test. Course 101A or Korean placement test is enforced requisite to 101B; course 101B or Korean placement test is en-
forced requisite to 101C. Advanced readings and dis-
cussion for students planning to do advanced course-
work or research on Korea. Topics selected from magazines, journals, and books related to humanities and social sciences. (Undergraduates), S/U (graduates), or letter grading.

101L. Advanced Readings in Modern Korean: In-
tensive. (12) Lecture, 15 hours. Enforced requisite: course 100C or Korean placement test. Intensive course equivalent to courses 101A, 101B, and 101C. Learning advanced Korean language with emphasis on pop culture and social issues of contemporary Ko-

C273. Imperial Culture in Ancient Japan. (4) Lec-
ture, three hours; discussion, one hour. Requisite: course 50. Knowledge of Japanese not required; ba-
sic knowledge of Japanese history and culture as-
sumed. Examination of formation of imperial-style state and its culture in Asuka, Nara, and Heian peri-
ods (7th-10th century). Literary genres in-
clude myths, historical narrative, poetry, short tales, and diaries. Concurrently scheduled with course C173. Letter grading.

M276. Reading Modern Bodies. (4) (Same as Compara-
tive Literature M276.) Seminar, three hours. Designed for graduate students. Exploration of con-
struction of human body through various modern technologies and discourses, including those of dis-
ease, diet, race, gender, and sexuality. Examination of texts from various locales, with particular emphasis on Japan. S/U or letter grading.

282. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not re-
quired. Lecture/discussions on native religious ritu-
als (festivals) and observances of Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-
Buddhist belief systems. Concurrently scheduled with course 182. Letter grading.


288A-288B. Reading Japanese Space. (4-4) (For-
merly numbered 288.) Seminar, three hours. Knowl-
edge of Japanese required. Designed for graduate stu-
dents. Examination of issues related to notion of kaisetsu (aisisighth), with particular regard to impact that transformation of space from premodern to mod-
ern times has had on perceptions and understanding of surrounding reality. Discussion of different space formations such as spaces of privacy, intimacy, seclu-
sion, and religiosity. Major sources from literary texts (ancient and modern), premodern debates on arts, and works by modern and contemporary Japanese philosophers. In Progress (288A) and letter (288B) grading.


297B. Seminar: Modern Japan. (4) Seminar, three hours. Selected topics on modern Japan. Letter grad-
ing.
109. Advanced Tutorial Instruction in Korean. (2) Tutorial, two hours. Requisite: course 100C or Korean placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Korean. May be repeated for credit. P/NP or letter grading.

CM120. Structure of Korean. (4) Same as Linguistics 171 and Comparative Literature 117B. Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of light of linguistic universal, with broad introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course C220L. Letter grading.


103A-103B-103C. Readings in Sino-Korean Characters. (4-4-4) Lecture, three hours. Requisite: course 100C or Korean placement test. Course 103A or Korean placement test is requisite to 103B; course 103B or Korean placement test is requisite to 103C. Sino-Korean characters are used differently from same Chinese characters used in contemporary Chinese in terms of meaning, pronunciation, and word formation. Professional-level speakers need to be able to read at least 1,800 Sino-Korean characters. Reinforcement of collocation patterns and semantic association of Sino-Korean vocabulary. P/NP or letter grading.

104A-104B-104C. Korean Writing for Advanced Learners. (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or Korean placement test. Emphasis on academic writing in Korean, including rhetorical conventions, argument construction and coherence, and development of prose style. Reading include representative examples of diverse genres selected from magazines, journals, and books. Each course may be taken independently for credit. P/NP (undergraduates), S/U (graduates), or letter grading.

C105A-C105B-C105C. Reading Korean Academic Texts. (4-4-4) Lecture, three hours. Recommended requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with courses C205A-C205B-C205C. P/NP or letter grading.

106A-106B-106C. Superior Korean. (4-4-4) Lecture, three hours. Recommended preparation: course 101C. May not be taken concurrently with course 102A, 102B, or 102C. Use of speaking, listening, reading, and writing skills to participate effectively and understand without difficulty any practical, social, and professional topics, whether those topics are familiar or not. Each course may be taken independently for credit. P/NP or letter grading.

107A-107B-107C. Professional/Academic Korean. (4-4-4) Lecture, three hours. Requisite: course 101C or Korean placement test. Course 107A or Korean placement test is requisite to 107B; course 107B or Korean placement test is requisite to 107C. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in Korean for students who wish to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional tasks in internationalization areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive listening. Research projects to be assigned according to student interests. P/NP or letter grading.

108FL. Special Studies: Readings in Korean. (2) Seminar, two hours. Enforced requisite: course 100C or Korean placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Korean to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.
Asian Languages and Cultures / 181

184B. Women of Modern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical, cultural, and social changes from perspective of women since mid-19th century. Consideration of how gender roles and identities were socially (re)constructed over time, with focus on continual negotiation by women and men within larger processes of political, social, and cultural transformation. Discussion of issues such as changes in women’s education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. P/NP or letter grading.


M186. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Vietnamese M186.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, with attention paid to key themes that serve as basis for comparison. Modern experiences of colonized Vietnam and Korea have many significant parallels, including imposition of colonial control, transformation of societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south, including warfare and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

187. Popular and Folk Religion in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to history, forms, and scholarship concerning folk religion in Korea. Exploration of Buddhist, Confucian, and folk religions in Korea, including shamanism, ancestor worship, and contemporary religions. Consideration of fortune-telling, geomancy, and spirit belief. P/NP (undergraduates); S/U (graduates).

191A. Variable Topics Research Seminars: Traditional Korea. (4) Seminar, three hours. Research seminar on selected topics of interpretation in Korean history from earliest times through mid-19th century. Coverage of political, social, and cultural transformation topics such as state formation, international relations, or “sprouts of capitalism” thesis. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Contemporary Korean Society and Culture. (4) Seminar, three hours. Requisite: course 177 or 180C. Research seminar on selected topics in modern Korean history. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Korean. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized instruction in Korean. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Advanced reading and translating; evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate adviser. P/NP or letter grading.

Graduate Courses

200. Bibliography and Methods of Research in Korean. (4) Lecture, three hours. Requisites: course 101C, Chinese 110C. Review of basic Western and modern Korean reference books, with concentration on Korean writing system and language, and survey of major bibliographical material. In addition, introduction to most important primary sources in student’s field of specialization. Letter grading.

203. Variable Topics in Korean Culture. (4) Seminar, three hours. Advanced course that explores Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. May be repeated for credit. S/U or letter grading.

205A-C205B-C205C. Reading Korean Academic Texts. (4-4-4) Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading knowledge of students by exposure to advanced level, with coverage in Korean of materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with courses C105A-C105B-C105C. S/U or letter grading.


211. Thought and Society in Modern Korea. (4) Discussion, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of list of books central to field of modern Korean history, including such topics as Korean capitalism and imperialism, social movements, and Korean. Letter grading.

212. 19th-Century Korea. (4) Seminar, three hours; discussion, one hour. Requisite: course 180B or 180C. Representation of technological and cultural evolution 1868 to 1910. Emphasis on the international relationship of Korea with the Western world. P/NP or letter grading.

215. Korean Literary History. (4) Lecture, three hours. Designed for graduate students. Critical history of development of modern Korean literature, with emphasis on canon and ideology, literary systems, hierarchy of genres of literary Korea, periodization, and critical issues in literary history. One particular area of focus to be nationalist canon that governs literary studies in Korea and West. Letter grading.

220. Structure of Korean. (4) Lecture, three hours; discussion, two hours. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. 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. S/U or 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 linguistic studies. Topics may include phonology, morphology, and pedagogy. In Progress (224A) and letter (224B) grading.


CM227. Contrastive Analysis of Japanese and Korean. (4) (Same as Japanese CM227.) Lecture, three hours; discussion, one hour. Recommended prepara- tion: two years of Japanese or Korean, one introductory linguistics course. Critical reading and discussion of selected current research papers in syntax, pragmatics, discourse, and sociolinguistics from perspective of linguistic universals and syntax-grammar, and cognitive grammar. May be repeated for credit with consent of instructor. Concurrently scheduled with course CM127. Letter grading.

230A-230B. Seminars: Literary Translation from Korean. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean. In consultation with instructor, students select works to be translated. Development of skill in producing accurate and readable translations, with emphasis on problems and tech- niques unique to poetry and prose. At end of term, students expected to produce publishable transla- tions. May be repeated once with consent of instruc- tor. In Progress (230A) and letter (230B) grading.

235A-235B. Seminars: Topics in Modern Korean Literature. (4-4) Seminar, three hours. Preparation: at least five years of Korean. Recommended: reading knowledge of Chinese. Forms of critical and methodological investigation. Study of selected works, period, theme, or author of 20th-century Korean literature, with critical review of secondary works in Western and Korean languages. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.


245A-245B. Seminars: Classical Korean Poetry. (4-4) Seminar, three hours. Preparation: reading knowledge of Chinese. Representation of analysis of classical Korean poetry, including discussion of literary and cultural contexts of poetic genres. Nature of genres, conventions that make meaning possible. Re- view of latest Korean scholarship. May be repeated once with consent of instructor. In Progress (245A) and letter (245B) grading.


275A-275B. Seminars: Topics in Traditional Korean Cultural History. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean or literary Chinese. Discussion and research on major topics in Korean cultural history, such as Confucianization of Korean society, Practical Learning movement of late
Choson dynasty, or Korean reactions to Western and Eastern learning and enlightenment movements of 19th century. May be repeated for credit. In Progress (296A) and letter (296B) grading.

296A-296B. Seminars: Topics in Modern Korean Cultural History. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean. Designed for graduate research seminar on selected topics in modern Korean history. In Progress (296A) and letter (296B) grading.

South Asian

Lower Division Course

M60. Religion in Classical India: Introduction. (5) (Formerly numbered 60.) (Same as Religion M60D) Lecture, three hours; discussion, one hour. Introduction to religions of classical India — Vedic, Brahmanical, Hindu, Jain, and Buddhist — paying equal attention to change and continuity, with emphasis on chronological development. P/NP or letter grading.

Upper Division Courses

110A. Elementary Sanskrit. (4) Lecture, three hours. Introduction to script and grammar, with reading exercises and attention to significance of Sanskrit for understanding of other Indo-European languages. P/NP or letter grading.


110C. Advanced Sanskrit. (4) Lecture, three hours. Requisite: course 110B. Reading of entire Bhagavadgita or comparable amount of other Sanskrit literature. P/NP or letter grading.

115. Readings in Sanskrit. (4) Lecture, three hours. Requisite: course 110C or the consent of the department. Extensive reading in such texts as best serve students' needs. May be repeated for credit with consent of instructor. P/NP (undergraduates), S/U (graduates), or letter grading.


CM160. Buddhism in India. (4) (Formerly numbered C160.) (Same as Religion M161D) Lecture, three hours; discussion, one hour. Knowledge of Indic languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but on archaeological, art historical, and inscriptive sources. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160, Letter grading.

Southeast Asian

Lower Division Courses

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies M20, Near Eastern Languages M20, and Slavic M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium B.C. While literate civilizations of Egypt, Indus Valley, and Sumer were known beyond Early Dynastic periods, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semantic language representation. Origins and development of early non-Western writing systems. How Greek-Roman alphabet arose in 1st millennium B.C. and how it compares to other modern writing systems. P/NP or letter grading.

M60. Religious Traditions in Southeast Asia. (4) (Formerly numbered 60.) (Same as Religion M60E) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions introduced to region, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

90. Modern Literatures in Southeast Asia. (4) Lecture, three hours. Introduction to modern literatures 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

130. Topics in Southeast Asian Literature. (4) Lecture, three hours. Requisite: Comparative Literature 1A, 1B, 1C, 1D, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Knowledge of Southeast Asian languages not required. Advanced exploration of Southeast Asia through reading of texts from region. Topics include censorship, politics, language, and literature. P/NP or letter grading.

135. Religion and Society in Southeast Asia. (4) Lecture, three hours; discussion, one hour. Recommended requisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and critical issues affecting them. Topics include history, culture, human rights, ethnicity, religion, politics. P/NP or letter grading.

140. Zomia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4) Lecture, three hours; discussion, one hour. Recommended requisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and critical issues affecting them. Topics include history, culture, human rights, ethnicity, religion, politics. P/NP or letter grading.

157. Gender Issues in Southeast Asia. (4) Seminar, three hours. Critical examination of gender issues in one or more Southeast Asian countries as they connect to social historical contexts nationally, regionally, or globally. May be repeated for credit. P/NP or letter grading.

170A-170B-170C. Topics in Southeast Asian Studies. (4-4-4) Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and/or visual documents. Topics include literature, religion, folklore, cultural history, and society. P/NP or letter grading.

197. Individual Studies in Southeast Asian. (4) Tuition to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized treatment of one language offered in program beyond introductory and intermediate courses currently offered. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see academic coordinator. P/NP or letter grading.

Thai

Lower Division Courses

1. Introductory Thai. (5) (Formerly numbered Southeast Asian 60A.) Lecture, five hours. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Thai. (5) (Formerly numbered Southeast Asian 60B.) Lecture, five hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Thai. (5) (Formerly numbered Southeast Asian 60C.) Lecture, five hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3R. Thai Scripts. (5) (Formerly numbered Southeast Asian 60D.) Lecture, five hours. Enforced requisite: prior course 3 with grade of C or better. Coverage of Thai scripts: speaking and listening skills in Thai and Thai placement test. Training in reading and writing at introductory level. Completion of course 3R is equivalent to completion of one year of college-level Thai. P/NP or letter grading.

4. Intermediate Thai. (5) (Formerly numbered Southeast Asian 61A.) Lecture, five hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more ad-
Advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Thai. (5) (Formerly numbered Southeast Asian 61B.) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Thai. (5) (Formerly numbered Southeast Asian 61C.) Lecture, five hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

7. Advanced Tutorial Instruction in Thai. (2) Tutorial, two hours. Enforced requisite: course 6 or Thai placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Thai. May be repeated for credit. P/NP or letter grading.

Vietnamese

Lower Division Courses

1. Introductory Vietnamese. (5) (Formerly numbered Southeast Asian 50A.) Lecture, two hours; discussion, three hours. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Vietnamese. (5) (Formerly numbered Southeast Asian 50B.) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Vietnamese. (5) (Formerly numbered Southeast Asian 50C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Vietnamese. (5) (Formerly numbered Southeast Asian 51A.) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Vietnamese. (5) (Formerly numbered Southeast Asian 51B.) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Vietnamese. (5) (Formerly numbered Southeast Asian 51C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

7. Elementary Vietnamese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Thai. (4-4-4) (Formerly numbered Southeast Asian 162A-162B-162C.) Lecture, three hours. Requisite: course 6 with grade of C or better. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic 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.

106. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Korean M168.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as basis for comparison. Modern experiences of colonized Korea and Vietnam have many significant parallels, including imposition of colonial control, transition to modernized societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

Astronomy

See Physics and Astronomy

Atmospheric and Oceanic Sciences

College of Letters and Science

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Suzanne E. Paulson, Ph.D., Vice Chair

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Robert G. Fowle, Ph.D.
Alexander D. Hall, Ph.D.
Kuo-Nan Liou, Ph.D.
Lawrence R. Lyons, Ph.D.
James C. McWilliams, Ph.D. (Louis B. Slichter Professor of Geophysics and Planetary Physics)
Carlos R. Mechoso, Ph.D.
J. David Neelin, Ph.D.
Suzanne E. Paulson, Ph.D.

180A. Vietnam: History and Civilizaton to 1858. (4) (Formerly numbered Southeast Asian 156A.) Lecture, three hours; discussion, one hour. Recommend preparation: at least one Asian history course. Exploration of Vietnamese society and culture from origins to early 19th century, with emphasis on examination of ways in which interactions between indigenous and Chinese/Southeast Asian political and cultural forces helped shape religious, literary, and social traditions. P/NP or letter grading.

180B. Vietnam: History and Civilization, 1858 to Present. (4) (Formerly numbered Southeast Asian 156B.) Lecture, three hours; discussion, one hour. Recommend preparation: at least one Asian history or civilization course. Exploration of Vietnamese history and civilization during colonial and postcolonial eras, with emphasis on profound changes that swept through Vietnamese society during period of extended political and military conflict. P/NP or letter grading.

M186. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Korean M168.) Seminar, three hours. Selected topics in Vietnamese contemporary culture, including diasporic culture, with emphasis on cultural production. Primary materials combined with theoretical readings. S/U or letter grading.
The atmospheric and oceanic sciences present a wide variety of problems of compelling scientific interest and increasing social concern. This is exemplified by efforts to improve air quality, dependencies 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 majors, and one C++ programming course.

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. Successful completion of the minor is indicated on the transcript and diploma.

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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 flexibl...
role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming (P/NP or letter grading).

1L. Climate Change: From Puzzles to Policy — Laboratory. (1) Lecture, three hours. Enrolled or required: course 1. Investigations and demonstrations supporting material in course 1, including causes and effects of high concentrations of pollutants, their transport, dispersion, modification, and removal, with emphasis on atmospheric processes on scales ranging from individual sources to global effects; interaction with biomes and oceans; stratospheric pollution. P/NP or letter grading.

2L. Air Pollution Laboratory. (1) Laboratory, three hours. Enrolled: corequisite: course 2. Investigations and demonstrations supporting material in course 2, including box model simulation, dose responses, air pollution and motion detection, daily and seasonal variation of smog pollutants, and smog transport. P/NP or letter grading.

3L. Introduction to Atmospheric Environment. (4) Lecture, three hours; discussion, one hour. Nature and causes of weather phenomena, including atmospheric variables and storms, lightning and precipitation, fronts and cyclones, and tornadoes and hurricanes. Atmospheric radiation, global warming, and greenhouse effect. P/NP or letter grading.


130L. California’s Ocean. (4) Lecture, four hours. Recommended prerequisites: Mathematics 55 or 95. Circulation, biogeochemistry, biota, water quality, measurement techniques, computational modeling, conservation, and management for California’s coastal ocean, including coastal processes and regional command. P/NP or letter grading.

M140. Environmental Chemistry Laboratory. (4) (Same as Chemistry M104.) Lecture, two hours; laboratory, three hours. Requisite: Chemistry 20B. Laboratory and analysis for students interested in pursuing careers in environmental science. Essential laboratory procedures to be performed in context of timely environmental issues involving smog formation, acid rain, and ozone depletion. Hands-on experience using scientific instruments and analytical techniques appropriate for environmental assessment. P/NP or letter grading.

141L. Introduction to Atmospheric Chemistry and Air Pollution. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 20B or 20C. Chemistry and physics of air and water pollution, including photochemistry, acid rain, air pollution meteorology and dispersion, ground- water and surface water pollution, chemical cycling, air/water interface, global atmospheric change. Letter grading.

M105. Introduction to Chemical Oceanography. (4) (Same as Geology M139.) Lecture, three hours; discussion, one hour. Requisites: Chemistry 20B. Laboratory and analysis for students involved in experiments in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.


C115. Mesometeorology. (4) Lecture, three hours. Requisites: course 101. Observations of phenomena with length scales ranging from 20 km to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line discussions. Design of project field. Concurrently scheduled with course 228. P/NP or letter grading.

C120. Introduction to Fluid Dynamics. (4) (Same as Earth and Space Sciences M140.) Lecture, three hours; discussion, one hour. Requisite: course 101. Observation of phenomena with length scales ranging from 20 km to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line discussions. Design of project field. Concurrently scheduled with course 228. P/NP or letter grading.

C170. Introduction to Solar System Planets. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 33A, Physics 1C. Introduction to basic physical principles governing in sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamo-

180. Numerical Methods in Atmospheric Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one course in C or Fortran programming. Requisite: Mathematics 33B. Survey of numerical methods, including finite difference and related sciences; theory, application, and programming. Letter grading.

186. Operational Meteorology. (2) Laboratory, six hours. Requisite: course C110. Limited to junior/senior Atmospheric and Environmental Sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Introduction to weather forecasting for aviation, air pollution, marine weather, fire weather, and public use. Includes daily weather map discussions and visits to observing, radiosonde, and radar installations. Letter grading.

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

199. Directed Research in Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Required for Mathematics and Atmospheric and Oceanic Sciences majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


205C. Planetary Upper Atmospheres. (4) Lecture, three hours; discussion, one hour. Aeronomy of upper atmospheres of Earth and other planets and some of their satellites — thermonuclear structure and morphology, 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 (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


211. Planetary Wave Dynamics and Teleconnections in Atmosphere/Ocean. (4) Lecture, three hours. Requisite: course 201B. Dynamics of stationary and low-frequency waves in Earth’s atmosphere and ocean with applications to remote impacts of climate variability. Propagation of barotropic and baroclinic Rossby waves in spatially varying flow. Interactions with storm tracks and mean flow. Teleconnection patterns. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

212A. Numerical Methods in Geophysical Fluid Dynamics. (4) Lecture, three hours. Requisite or corequisite: course 201A. Basic numerical methods for initial-boundary value problems in fluid dynamics, with emphasis on applications to atmospheric and oceanic problems. Finite difference methods and truncation error. Linear and nonlinear computational instability. Computational modes and computational boundary conditions. Nonlinear shallow-water equation model. Spectral methods. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


215. Ocean Circulation. (4) Lecture, three hours. Requisite: course 201B. Phenomena, theory, and modeling of ocean circulations with global re- gional scope. Circulation types include oceanic gyres, thermohaline and wind-driven currents. Examination of relation- ships between ocean circulation and large-scale motions, atmospheric climate, and biogeochemical transport. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

218. Dynamics of Atmosphere/Ocean System. (4) Lecture, three hours. Transfer of properties between atmosphere and ocean; wind-driven ocean currents; coastal upwelling; air-sea interactions. Effects of oceans on climate. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


221. Geophysical Turbulence. (4) Lecture, three hours. Requisites: courses 200A, 201A. Phenomena, theory, and modeling of turbulence in Earth’s oceans and atmosphere — from fine structure to planetary scale. 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, mass, and turbulent convection. Survey of field and laboratory observations and their interpretation by theory. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

224B. Atmospheric Diffusion and Air Pollution. (4) (Same as Civil Engineering M262B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors and air pollution potential; meteorological aspects of air pollution. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

C227. Advanced Dynamic and Synoptic Meteorology. (6) Laboratory, six hours. Requisite: course 101. Weather analysis, thermodynamic disequilibria, satellite interpretation, severe weather forecasting, isotropic 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. Mesometeorology. (4) Lecture, three hours. Requisite: course 101. Observations of phenomena with length-scales ranging from 20 km to 2,000 km. Topics include polar lows, airms and thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line. Discussions on design and construction of instrumentally sophisticated weather systems. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

229. Meso-scale Modeling. (4) Lecture, three hours. Requisites: courses 201C, C228. Numerical and analytical modeling of convective and mesoscale motions, from shallow heat sources to large complex systems. Model frameworks, assumptions, parameterizations, and solution techniques. Role of modeling efforts in understanding dynamic structure and behavior of systems. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

Atmospheric Physics and Chemistry

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of troposphere; physical chemistry of surfaces and solutions; precipitation chemistry and acid rain; atmospheric organic chemistry; regional and global geochemical cycles; current issues in global change. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230B. Atmospheric Chemistry II. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of stratosphere and mesosphere; basic ionospheric processes; stratospheric pollution and ozone layer; physical chemistry of upper atmosphere clouds and aerosols; comparative photochemistry of planetary atmospheres; observational techniques and results. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


Upper Atmosphere and Space Physics

250A. Solar System Magnetohydrodynamics. (4) Lecture, three hours. Requisite: course C205A. Derivation of MHD equations with two fluid aspects, geophysical ocean, magnetosphere, solar wind, shock waves, and instabilities. Applications to static and dynamics of solar wind and planetary magnetospheres and to solar wind/magnetosphere/ionosphere coupling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

256. Ionospheric Electrodynamic Processes. (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) 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.


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 interdisciplinary research in marine and coastal sciences, including physical oceanography, biogeochemistry, marine biology, coastal engineering, atmospheric processes, and health-related issues. May be repeated for credit. S/U grading.

281. Special Topics in Dynamic Meteorology. (To 4) Lecture, two hours. Individual meetings with instructor to be arranged. Content varies from year to year. S/U or letter grading.

282. Special Topics in Oceanography. (To 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

283. Special Topics in Atmospheric Physics. (To 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

284. Special Topics in Atmospheric Chemistry. (To 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

285. Special Topics in Solar Planetary Relations. (To 4) Lecture, two hours. Individual meetings with instructor to be arranged. Selected topics of current research interest in solar wind, magnetospheric, or ionospheric physics. S/U or letter grading.

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.


395. Teaching Atmospheric and Oceanic Sciences. (2) Seminar, one hour; two-day intensive training session prior to Fall Quarter. Required of all new teaching assistants and recommended for new Ph.D. students and graduate students intending to be teaching assistants during academic year. Introduction to classroom teaching for general education and upper division departmental courses. Topics include pedagogical techniques, preparation, academic integrity, and integration of technology and electronic communications. S/U grading.


597. Preparation for M.S. Comprehensive Examination. (To 8) Tutorial, to be arranged. S/U grading.


**Bioengineering**

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Daniel T. Kamei, Ph.D., Vice Chair

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Linda L. Demer, M.D., Ph.D.
Timothy J. Deming, Ph.D.
James Dunn, M.D., Ph.D.
Warren S. Grundfest, M.D., FACS
Chih-Ming Ho, Ph.D. (Ben Rich Lockheed Martin Professor of Aeronautics)
Bahram Jalali, Ph.D.
Wentai Liu, Ph.D.
Gerard C. L. Wong, Ph.D.
Benjamin M. Wu, D.D.S., Ph.D.

**Professors Emeriti**

Hoshyar Kangarlo, Ph.D.
Edward R.B. McCabe, M.D., Ph.D. (Mattel Executive Endowed Professor Emeritus of Pediatrics)

**Associate Professors**

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Dino DiCarlo, Ph.D.
Daniel T. Kamei, Ph.D.
Aydogan Ozcan, Ph.D.
Jacob J. Schmidt, Ph.D.

**Assistant Professor**

Andrea M. Kasko, Ph.D.

**Adjunct Professor**

Debiao Li, Ph.D.

**Adjunct Assistant Professors**

Martin O. Culjat, Ph.D.
Kayvan Niazi, Ph.D.
Shahroob Razibzadeh, Ph.D.
Bill J. Tawil, M.B.A., Ph.D.

**Scope and Objectives**

Faculty members in the Department of Bioengineering believe that the interface between biology and the physical sciences represents an exciting area for science in the twenty-first century. Bioengineering has established itself as an independent field and engineering discipline, resulting in the formation of many new bioengineering departments and the redefinition of established programs. Faculty members have embraced this unique opportunity by developing an innovative curriculum, creating state-of-the-art facilities, and performing cutting-edge research.

Instead of treating bioengineering as an application of traditional engineering, it is taught as an applied science discipline in its own right. The bioengineering program is a structured compilation of unique forward-looking courses.
determined to producing graduates who are well-grounded in the fundamental sciences and highly proficient in rigorous analytical engineering tools necessary for lifelong success in the wide range of possible bioengineering careers. With these courses and a strong emphasis on research, the program provides a unique engineering educational experience that responds to the growing needs and demands of bioengineering.

Undergraduate Study

The Bioengineering major is a designated capstone major. Utilizing knowledge from previous courses and new techniques learned from the capstone courses, undergraduate students work in teams to apply advanced knowledge of mathematics, science, and engineering principles to address problems at the interface of biology and engineering and to develop innovative bioengineering solutions to meet specific sets of design criteria. Coursework entails construction of student designs, project updates, presentation of projects in written and oral format, and team competition.

Bioengineering B.S.

**Capstone Major**

**Preparation for the Major**

**Required:** Bioengineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B, 30BL; Computer Science 31; Life Sciences 2 (satisfies HSS/GE Life sciences requirement), 3, 4, 23L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

**The Major**

Required: Bioengineering 100, C106, 110, 120, 165EW (or Engineering 183EW or 185EW), 167L, 176, 180, Chemistry and Biochemistry 153A, Electrical Engineering 100; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Bioengineering 177A, 177B); and three major field elective courses (12 units) from Bioengineering C101, C102, C103, C104, C105, C131, CM140, CM145, CM147, CM150, CM150L, C170, C171, CM178, C179, 180L, 181L, C183, C185, CM186, CM186, 199 (8 units maximum).

The three technical breadth and three major field elective courses may also be selected from one of the following tracks. Bioengineering majors cannot take bioengineering technical breadth courses to fulfill the technical breadth requirement.

*Biomedical Devices: Bioengineering C131, C172, 199 (8 units maximum), Electrical Engineering 102, CM150 (or Mechanical and Aerospace Engineering CM180), CM150L (or Mechanical and Aerospace Engineering CM180L), Mechanical and Aerospace Engineering C187L. The electrical engineering or mechanical and aerospace engineering courses listed above may be used to satisfy the technical breadth requirement.*

For Bioengineering 199 to fulfill a track requirement, the research project must fit within the scope of the track field, and the research report must be approved by the supervisor and vice chair.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Bioengineering Department offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Bioengineering.

Bioengineering

**Lower Division Courses**

10. Introduction to Bioengineering. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Preparation: high school biology, chemistry, mathematics, physics. Introduction to scientific and technological bases for established and emerging subfields of bioengineering, including biosensors, bioinstrumentation, and biosignal processing, biomechanics, biomaterials, tissue engineering, biotechnology, biological imaging, biomedical optics and lasers, neuroengineering, and biomedical machines. Letter grading.

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

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

**Upper Division Courses**

100. Bioengineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 32A, Physics 1B. Fundamental basis for analysis and design of biological and biomedical devices and systems. Classical and statistical thermodynamic analysis of biological systems. Material, energy, charge, and force balances. Introduction to network analysis. Letter grading.


C102. Basic Human Biology for Bioengineers I. (4) Formerly numbered Biomedical Engineering C102.) (Same as Physiological Science 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 (organisms) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM202. Letter grading.


C104. Physical Chemistry of Biomacromolecules. (4) Formerly numbered M104.) Lecture, three hours; discussion, two hours; outside study, seven hours. Prerequisites: Chemistry 20A, 20B, 30A, Life Sciences 2, 3, 23L. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules such as protein or DNA can be analyzed and characterized by applying fundamentals of polymer physical chemistry. Investigations of biopolymer formation, bulk and solution thermodynamics and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation and characterization of biomacromolecules. Concurrently scheduled with course C204. Letter grading.

C105. Biopolymer Chemistry and Bioconjugates. (4) Formerly numbered M105.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is the science of coupling biomolecules for wide range of applications. Oligonucleotides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linker, and understanding type of bio-molecule and desired application, such as biodegradable versus nondegradable linkers. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C205. Letter grading.

C106. Topics in Biophysics, Channels, and Membranes. (4) Formerly numbered M106.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: Chemistry 20B, Life Sci-
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120. Biomedical Transducers. (4)
Biomedical engineers, including cells, tissues, organs, human body, flow, heat transfer, mass transfer, binding events, and stereochemistry in polymerizations. Presentation of control chain length, chain length distribution, and growth (ionic, radical, metal catalyzed), and ring-polymer synthesis, including step-growth, chain scheduled with course C206. Letter grading.

121. Biomechanics Applications. (4)
Application of mechanics to current biomedical engineering research and re-thinking of the human body in terms of mechanical and biological properties. Case studies connect laboratory techniques to current biomedical engineering research and reinforce experimental design skills. Letter grading.

C170. Energy-Tissue Interactions. (4)
Formerly numbered Biomedical Engineering C170.) Lecture, three hours; outside study, nine hours. Requisites: Electrical Engineering 172, 175, Life Sciences 3, Physics 17. Corequisite: course C170L. Introduction to therapeutic and diagnostic use of energy delivery devices in medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C270. Letter grading.

C170L. Introduction to Techniques in Studying Laser-Tissue Interaction. (2) Formerly numbered Biomedical Engineering 170L.) Lecture, four hours; outside study, two hours. Corequisite: course C170. Introduction to simulation and experimental techniques used in studying laser-tissue interactions. Topical areas include laser-matter interactions, techniques to study tissue in tissue, measuring absorption spectra of tissues/tissue phantoms, making tissue phantoms, determination of optical properties of different tissues, techniques for temperature distribution measurements. Concurrently scheduled with course C270L. Letter grading.


C172. Design of Minimally Invasive Surgical Tools. (4) Formerly numbered M172.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 30B, Life Sciences 2, 3, 23L, Mathematics 32A. Introduction to design principles and simulation concepts and analysis. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS) laboratory. Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students design microfabrication processes capable of achieving desired MEMS device. Concurrently scheduled with course CM250A. Letter grading.

CM140. Introduction to Biomechanics. (4) (Formerly numbered Mechanical Engineering CM140.) (Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; discussion, two hours; outside study, four hours. Introduction to mechanics of solid objects and fluids. Emphasis on applying such devices to all living systems. Emphasis on research and writing within engineering environment. Satisfies engineering writing requirement. Letter grading.

167L. Bioengineering Laboratory. (4) (Formerly numbered 182A.) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: Chemistry 1. Laboratory: the use of advanced instrumentation, such as electron microscopy, bioclotting, soft lithography, and cell culture cultures in living design for cell growth. Introduction to techniques used for laboratory and industry. Physical or chemical properties. Case studies connect laboratory techniques to current biomedical engineering research and reinforce experimental design skills. Letter grading.

C150L. Introduction to Techniques in Studying Laser-Tissue Interaction. (2) Formerly numbered Biomedical Engineering 150L.) Lecture, four hours; discussion, two hours; outside study, two hours. Corequisite: course C150L. Introduction to simulation and experimental techniques used in studying laser-tissue interactions. Topical areas include laser-matter interactions, techniques to study tissue in tissue, measuring absorption spectra of tissues/tissue phantoms, making tissue phantoms, determination of optical properties of different tissues, techniques for temperature distribution measurements. Concurrently scheduled with course C250L. Letter grading.

C170. Energy-Tissue Interactions. (4) Formerly numbered Biomedical Engineering C170.) Lecture, three hours; outside study, nine hours. Requisites: Electrical Engineering 172, 175, Life Sciences 3, Physics 17. Corequisite: course C170L. Introduction to therapeutic and diagnostic use of energy delivery devices in medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C270. Letter grading.
develop innovative solutions to address current problems in medicine and biology. Sourcing and ordering of materials and supplies relevant to student projects. Exploration of different experimental and computational methods. Scientific presentation of research conducted under graduate advisement. Letter grading.

177B. Bioengineering Capstone Design II. (4) Formerly numbered Biomedical Engineering CM180.) Same as Materials Science CM180.) Lecture, three hours; discussion, two hours; outside study, seven hours. Enforced requisites: courses 177A; Corequisite: course 177A. Letters and oral presentations explain the physical and chemical basis of technologies such as those taught by resident and temporary faculty members. May be repeated for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Bioengineering. (4) Seminar, three hours. Limited to bioengineering undergraduate students who are part of research groups. Study and analysis of problems in bioengineering. Discussion of current research literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. Letter grading.

199. Directed Research in Bioengineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Letter grading.

Graduate Courses

C201. Engineering Principles for Drug Delivery. (4) Formerly numbered Biomedical Engineering C201.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 33B, Physics 1B. Application of engineering principles for designing and understanding delivery of therapeutics. Discussion of physics and mathematics needed for understanding colloid stability. Analysis of concepts related to both modeling and experimentation of endocytosis and intracellular trafficking mechanisms. Not open for credit to students majoring in biological sciences. Concurrently scheduled with course C201. Letter grading.

CM202. Basic Human Biology for Bioengineers I. (4) Formerly numbered Biomedical Engineering CM202.) (Same as Physiological Science CM202.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to students majoring in biological sciences. Major overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis involved. 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 Bioengineers II. (4) Formerly numbered Biomedical Engineering CM203.) (Same as Physiological Science CM203.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to students majoring in biological sciences. Broad overview of biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular processes involved. 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.

CM204. Physical Chemistry of Biomacromolecules. (4) Formerly numbered Biomedical Engineering C204.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 2, 3, 23L. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules such as protein or DNA can be analyzed and characterized by applying fundamentals of polymer physical chemistry. Investigation of polymer structure and conformation, bulk and solution thermodynamics and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as interaction of charged species, and separation and characterization of biomacromolecules. Concurrently scheduled with course C104. Letter grading.
C205. Biopolymer Chemistry and Bioconjugates. (4) (Formerly numbered Biomedical Engineering C205.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course and one chemistry course on the chemistry of coupling biomolecules for wide range of applications. Oligonucleotides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer, if their stability in serum. A variety of biocojugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligand synthesis, including step-growth, chain growth and ring-opening, with focus on factors that can be used to control chain length, chain length distribution, and chain-end functionality, chain copolymerization, and stereochemistry in polymerization. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, ring-opening, and coordination polymerization, and effect of on synthesis and on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C107. Letter grading.

C206. Topics in Biophysics, Channels, and Membranes. (4) (Formerly numbered Biomedical Engineering C206.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: Chemistry 20B, Life Sciences 2, 3, 4, 23L. Mathematics 33B, Physics 1C, 4AL, 4BL. Coverage in depth of physical processes associated with biological membranes and membrane proteins. Specific topics include: Nernst Planck and Poisson/Boltzmann equations, Nernst potential, Donnan equilibrium, GHK equations, energy barriers in ion channels, cable equation, action potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conductivity, dendritic integration. Concurrently scheduled with course C106. Letter grading.

C207. Polymer Chemistry for Bioengineers. (4) (Formerly numbered Biomedical Engineering C207.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C204 or C205. Fundamental concepts of polymer synthesis, including step-growth, chain growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain length, chain length distribution, and chain-end functionality, chain copolymerization, and stereochemistry in polymerizations. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, ring-opening, and coordination polymerization, and effect of on synthesis and on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C107. Letter grading.

M214A. Digital Speech Processing. (4) (Formerly numbered Biomedical Engineering M214A.) (Same as Electrical Engineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: Electrical Engineering 113. Theory and application of processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filterbank models of filtering, applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

M215. Biochemical Reaction Engineering. (4) (Formerly numbered Biomedical Engineering M215.) (Same as Chemical Engineering CM215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemical Engineering 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. Letter grading.

M217. Biomedical Imaging. (4) (Formerly numbered Biomedical Engineering M217.) (Same as Electrical Engineering M217.) Lecture, three hours; outside study, nine hours. Requisite: Electrical Engineering 114 or 211A. Optical imaging modalities in biomedicine; other imaging modalities discussed briefly for comparison purposes. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Formerly numbered Biomedical Engineering M219.) (Same as Biomedical Physics M219.) Lecture, three hours; discussion, one hour. Basic principles of magnetic resonance (MR), physics, and image formation. Emphasis on hardware, Bloch equations, analytic expressions, image contrast mechanisms, spin echoes, Fou- rier transform imaging methods, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quanti- tative imaging, and image quantitation. Letter grading.

M220. Introduction to Medical Informatics. (2) (Formerly numbered Biomedical Engineering 220.) Lecture, two hours; outside study, four hours. Designed for graduate students. Introduction to research topics and issues in medical informatics for students new to field. Definition of this emerging field of study, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different domains, such as information system architectures, data and process modeling, information extraction and representations, information retrieval and visualization, health services research, telemedicine, andmany research endeavors and applications. S/U grading.

M221. Human Anatomy and Physiology for Medical Imaging. (4) (Formerly numbered Biomedical Engineering 221.) Lecture, four hours; outside study, eight hours. Designed for graduate stu- dents. Introduction to basic human anatomy and physiology, with particular emphasis on understanding and visualization of anatomy and physiology through medical images. Topics relevant to computerized, representation, and dissemination of anatomical knowledge in computerized clinical applications. Topics include chest, cardiac, neurology, gastrointestinal/ genitourinary, musculoskeletal, and skin systems. Introduction to basic imaging physics (magnetic resonance, computed tomography, ultrasound, com- puted radiography) to provide context for imaging mo- dalities used in medical practice. Letter grading.

M222A-222B-222C. Programming Laboratories for Medical Imaging. (2-4-4) (Formerly numbered Biomedical Engineering 222A-222B-222C.) Lecture, two hours; laboratory, two hours; outside study, eight hours. Designed for graduate students. Programming laboratories to support students in courses 224B and M226 to reinforce concepts presented in course 223A, integrated with topics presented in courses 223A, 223B, and 223C. Integrated with topics presented in course 223A to reinforce concepts presented with practical experience. Projects focus on understanding medical nervous systems and imaging of basic protocols for healthcare environment, with emphasis on use of DI- COM. Introduction to basic tools and methods used within informatics. Letter grading.

M223A. Requisites: Computer Science 31, 32, Program in Computing 20A, 20B. Course 223A is requi- site to 223B, which is requisite to 223C. Integrated with topics presented in course 222A to reinforce concepts presented with practical experience. Projects focus on understanding medical nervous systems and imaging of basic protocols for healthcare environment, with emphasis on use of DI- COM. Introduction to basic tools and methods used within informatics.Letter grading.

M223B. Requisite: course 223A. In- tegrated with topics presented in courses 223A, 223B, and 223C to reinforce concepts presented with practical experience. Projects focus on understanding medical nervous systems and imaging of basic protocols for healthcare environment, with emphasis on use of DI- COM. Introduction to basic tools and methods used within informatics. Letter grading.

M224A. Physics and Informatics of Medical Imag- ing. (4) (Formerly numbered Biomedical Engineering 224A.) Lecture, four hours; laboratory, eight hours. Requisites: Mathematics 33A, 33B. Designed for graduate students. Introduction to principles of medical imaging and basic physics needed for nonphysicists. Overview of core imaging modalities: X-ray, computed tomography (CT), and magnetic resonance (MR). Topics include signal generation, localization, and quantization. Image representation and analysis techni- ques such as Markov random fields, spatial charac- terization (atlases), denoising, energy representa- tions, and clinical imaging workstation design. Pro- vides basic understanding of issues related to basic medical image acquisition and analysis. Current re- search efforts with focus on clinical applications and new types of information made available through these modalities. Letter grading.

M224B. Advances in Imaging Informatics. (4) (For- merly numbered Biomedical Engineering 224B.) Lecture, four hours; outside study, eight hours. Requisite: course 224A. Overview of information retrieval tech- niques in medical imaging and informatics-based applications of imaging, with focus on various advances in field. Introduction to core concepts in information retrieval (IR), reviewing seminal papers on evaluating IR systems and their use in medical (e.g., teaching files), and retrieving patient-centered information. Content-based image retrieval (CBIR) as motivating applica- tion, with examination of core works in this area. Techniques to realize medical CBIR, including image feature extraction and representation, retrieval and presentation, classification schemes (via machine learning), image indexing, image querying methods, and visual- ization of images (e.g., perception, presentation). Dis- cussion of more advanced methods now being pur- sued by researchers. Letter grading.

M225. Bioseparations and Bioprocess Engineer- ing. (4) (Formerly numbered Biomedical Engineering M225.) (Same as Chemical Engineering CM225.) Lecture, four hours; laboratory, two hours; outside study, seven hours. Corequisite: Chemical Engineering 101C. Separation strategies, unit operations, and economic factors used to design processes for isolat- ing and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Letter grading.

M226. Medical Knowledge Representation. (4) (Formerly numbered Biomedical Engineering M226.) (Same as Information Studies M226.) Lecture, four hours; laboratory, two hours; outside study, eight hours. Designed for gradu- ate students. Issues related to medical knowledge representation and its application in healthcare professional education. Topics include representation of knowl- edge (conceptual graphs, frame-based models), different data models for representing spa- tio-temporal information, rule-based implementa- tions, current statistical methods for discovery of knowledge (data mining, statistical classifiers, and hier- archical classification), and basic information re- trieval. Review of work in constructing ontologies, with focus on problems in implementation and definition. Common medical ontologies, coding schemes, and standardized indexes/terminologies (SNOMED, UMLS). Letter grading.

M227. Medical Information Infrastructures and In- ternet Technologies. (4) (Formerly numbered Biomedical Engineering M227.) (Same as Information Studies M227.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, communications, and informa- tion infrastructures in medical environment. Exposure to basic concepts related to networking at several lev- els: low-level (TCP/IP, services), medium-level (net- worked devices, protocols), and high-level (Internet comput- ing, Web-based services) implementations. Common- ly used medical communication protocols (HL7, DICOM) and current medical information systems (HIPAA, CCR, PACS). Advanced applications in wireless health systems, peer-to-peer topologies, grid/cloud computing. Introduction to security and en- cryption in networked environments. Letter grading.
M228. Medical Decision Making. (4) (Formerly numbered Biomedical Engineering C211.) Lecture, six hours; outside study, eight hours. Designed for graduate students. Overview of issues related to medical decision making. Traditional versus evidence-based approach. Concept of evidence-based medicine and decision processes related to process of care and outcomes. Basic probability and statistics to understand research results and evaluations, and algorithms for decision-making processes (Bayes theorem, decision trees). Study design, hypothesis testing, and estimation. Focus on technical advances in medical decision support systems and expert systems. Review of classic and current research. Introduction to common statistical and decision-making software packages to familiarize students with current tools. Letter grading.

C231. Nanopore Sensing. (4) (Formerly numbered Biomedical Engineering C231.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 120, Life Sciences 2, 3, 23L, Physics 1A, 1B, 1C. Analysis of sensors based on measurements of fluctuating ionic conductance through artificial or protein nanopores. Phinics of pore conductance. Applications to single molecule detection and DNA sequencing. Review of current literature and technological applications. History and instrumentation of single molecule sensing, the instrumentation of electrical measurements in electrophoresis, nanopore fabrication, ionic conductance through pores and GHK equation, patch clamp and single channel protein and instrumentation, noise issues, protein engineering, molecular sensing, DNA sequencing, membrane engineering, and future directions of field. Concurrently scheduled with course C313. Letter grading.

CM240. Introduction to Biomechanics. (4) (Formerly numbered Biomedical Engineering CM240.) (Same as Mechanical and Aerospace Engineering CM101.) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisites: courses M110A, 110B, 110C, 110LA, 110LB, 110LC. Introduction to mechanical functions of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Formerly numbered Biomedical Engineering CM245.) (Same as Chemical Engineering CM245.) Lecture, four hours; discussion, one hour; outside study, eight hours. Selected topics in molecular biology that are integral to the field of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and bioinformatics, isolation of human genes, and gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

C247. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) (Formerly numbered Biomedical Engineering C247.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L, Life Sciences 1 or 2. Overview of central topics of tissue engineering, with focus on how to build artificial tissues into regulated clinically viable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artificial skin, bone and cartilage, blood vessels, nervous system, and liver tissue, including other organs. Clinical and industrial perspectives of tissue engineering products. Manufacturing constraints, clinical limitations, and regulatory challenges in design and development of tissue-engineering devices. Concurrently scheduled with course C147. Letter grading.

M248. Introduction to Biological Imaging. (4) (Formerly numbered Biomedical Engineering M248.) (Same as Biomedical Physics M248 and Pharmacology M248.) Lecture, three hours; laboratory, one hour; outside study, eight hours. Topics include biologic imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through observation of imaging laboratories. Letter grading.

CM250A. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4) (Formerly numbered Biomedical Engineering CM250A.) (Same as Electrical Engineering CM250A and Mechanical and Aerospace Engineering CM280A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS devices. Topics include computer simulations of light propagation in tissue, measuring absorption spectra of tissue/tissue phantoms, making tissue phantoms, determination of optical properties of different tissues, techniques for temperature distribution measurements. Concurrently scheduled with course CM150. Letter grading.

CM250L. Introduction to Micromachining and Microelectromechanical Systems (MEMS) Laboratory. (2) (Formerly numbered Biomedical Engineering CM250L.) (Same as Electrical Engineering CM250L and Mechanical and Aerospace Engineering CM280L.) Lecture, one hour; laboratory, four hours; outside study, one hour. Requisites: course CM250A. Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Preparation of drawings and consideration of technical approaches to morphological study of nervous system in discussions of current and future technologies of imaging of nervous system. Preparation of drawings and consideration of technical mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C170. Letter grading.

CM270. Energy-Tissue Interactions. (4) (Formerly numbered Biomedical Engineering C270.) Lecture, three hours; outside study, nine hours. Requisites: Electrical Engineering C270, Laboratory, four hours. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS) laboratory. Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students designing fabrication processes capable of achieving desired MEMS devices. Concurrently scheduled with course CM250L. Letter grading.

CM280. Microelectromechanical Systems (MEMS) Fabrication. (4) (Formerly numbered Biomedical Engineering C280.) (Same as Electrical Engineering CM280 and Mechanical and Aerospace Engineering CM280.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course CM150 or CM250A. Advanced design of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

CM280A. Fabrication. (4) (Formerly numbered Biomedical Engineering CM280A.) Lecture, four hours; discussion, two hours; outside study, ten hours. Requisites: course CM250A, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Preparation of drawings and consideration of technical mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course CM280. Letter grading.

CM290. Lasers in Medicine. (4) (Formerly numbered Biomedical Engineering CM290.) (Same as Biological Sciences 3.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Preparation of drawings and consideration of technical mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course CM290. Letter grading.

C271. Laser-Tissue Interaction II: Biologic Spectroscopy. (4) (Formerly numbered Biomedical Engineering C271.) Lecture, outside study, eight hours. Requisites: course CM270. Designed for physical sciences, life sciences, and engineering majors. Introduction to optical spectroscopy principles, design of spectroscopic measurement devices, optical properties of tissues, and fluorescence spectroscopy and microscopy. Concurrently scheduled with course C171. Letter grading.

C272. Design of Minimally Invasive Surgical Tools. (4) (Formerly numbered Biomedical Engineering C272.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 30B, Life Sciences 2, 3, 23L, Mathematics 32A. Introduction to design principles and engineering concepts used in design and manufacture of tools for minimally invasive surgery. Coverage of FDA regulatory policy and surgical procedures. Topics include optical devices, endoscopes and laparoscopes, biopsy devices, laparoscopic tools, cardiovascular and interventional radiology devices, orthopedic instrumentation, and integration of devices with therapy. Examination of common sense tools of fabrification, testing, and validation. Preparation of drawings and consideration of development of new and novel devices. Concurrently scheduled with course C172. Letter grading.

CM278. Introduction to Biomatertials. (4) (Formerly numbered Biomedical Engineering CM278.) (Same as Materials Science CM260.) Lecture, three hours; discussion, two hours; outside study, seven hours.
282. Biometric Interfaces. (Formerly numbered Biomedical Engineering 282.) Lecture, four hours; laboratory, eight hours. Requisite: course CM178 or CM278. Function, utility, and biocompatibility of biomaterials depend critically on their surface and interfacial properties. Discussion of morphology and composition of biomaterials and nanoscales, microscales, and macroscales, techniques for characterizing structure and properties of biomaterial interfaces, and methods for designing and fabricating biomaterials with properties that are desirable in vitro and in vivo. Letter grading.

C283. Targeted Drug Delivery and Controlled Drug Release. (4) (Formerly numbered Biomedical Engineering C283.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. In-depth exploration of host cellular responses to biomaterials: vascular response, interface, and clotting, biocompatibility, animal models, inflammation, cellular matrix, cell signaling, and role of mechanical forces. Concurrently scheduled with course C179. Letter grading.

CM226. Computer Systems Biology: Modeling and Simulation of Biological Systems. (5) (Formerly numbered Biomedical Engineering CM226.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Corequisite: Electrical Engineering 102. Dynamic biological processes and complex systems at multiple levels of organization. Control system, multicompartamental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other dynamic models. Merging of biophysical, experimental, and mathematical sciences at the molecular, cellular, tissue, and organ levels. Techniques for fitting dynamic 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 schedules. Exploration of the use of simulation software to model human organ system behavior across the systems biology domain. Letter grading.

CM287. Thesis Research and Research Communication in Computational and Systems Biology. (2 to 16) (Formerly numbered Biomedical Engineering CM287.) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Bioinformatics Program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Bioinformatics.

Bioinformatics

Upper Division Course

199. Directed Research in Bioinformatics. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

M202. Bioinformatics Interdisciplinary Research Seminar. (4) (Same as Chemistry M202.) Seminar, two hours; discussion, two hours. Concrete examples of how biological questions about genomics data map to and are solved by methodologies from other disciplines, including statistics, computer science, and mathematics. May be repeated for credit. S/U or letter grading.

M224. Computational Genetics. (4) (Same as Computer Science CM224 and Human Genetics CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and Biostatistics 100A or 110A or Mathematics 170A or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to statistical methodology in research specialty of faculty member. Examination of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Letter grading.

M260B. Algorithms in Bioinformatics and Systems Biology. (4) (Same as Chemistry CM260B and Computer Science CM222.) Lecture, four hours; discussion, two hours. Recommended requisites: Biostatistics 100A or 110A or Mathematics 170A or Statistics 100A, and Computer Science 32 or Program in Computing 10C with grade of C– or better. Course CM260A is not requisite to CM260B. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological problems as computational problems and then solving these problems using algorithmic techniques. Computation, problems as computational problems and then solving these problems using algorithmic techniques. Computation.

M271. Statistical Methods in Computational Biology. (4) (Same as Biomathematics M271 and Statistics M252.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisites: course M260A or Statistics 100A or 200A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and computational networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

296. Seminar: Research Topics in Bioinformatics. (2) Seminar, to be arranged; discussion, three hours. Advanced study and analysis of current research topics in bioinformatics. Discussion of current research literature and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

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

596. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. 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. May be repeated for credit. S/U grading.

598. M.S. Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. Ph.D. Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

220A-220B-220C. Research Laboratory Rotations. (3 each) Laboratory, two to eight hours. Students arrange apprenticeships in laboratories of one or more departmental faculty members and engage in research project under close faculty direction. Allows students to acquire in-depth laboratory experience in specific research areas and facilitates informed decision on their part in selection of thesis/research adviser. S/U grading.

M223. Membrane Molecular Biology. (4) (Same as Physiology M223.) Lecture, two hours; discussion, two hours. Requisites: 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; receptors and transmembrane signaling. S/U or letter grading.

M234. Genetic Control of Development. (4) (Same as Molecular, Cell, and Developmental Biology M234.) Lecture, four hours. Topics at forefront of molecular developmental biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

M237. Cellular and Molecular Basis of Disease. (4) (Same as Pathology M237.) Lecture, two hours; laboratory, two hours. Preparation: one course each in molecular biology, cell biology, and biological chemistry. Discussion of key issues in disease mechanisms, with emphasis on experiments leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. Letter grading.

251A-251B-251C. Seminars: Transcriptional Regulation. (2-2-2) Seminar, two hours; discussion, two hours. 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.

254A-254D. Concepts in Molecular Biosciences. (3 each) Lecture, three hours; discussion, two hours. Letter grading.

254A. (3) Lecture, three hours; discussion, two hours. Five-week course covering classical and modern approaches of biochemistry and molecular biology in context of various specific topics, including (1) structural biology, with protein and nucleic acid structure and molecular recognition, (2) use of cell-free and purified in vitro systems to dissect reaction mechanisms, (3) biochemical approaches to dissecting complex reactions/pathways in cells, and (4) enzymology and protein chemistry. Letter grading.

254B. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisite: course 254A. Important biological problems that have been genetically analyzed in different organisms or small number of related problems. Major genetic approaches used in relevant organisms, including both forward and reverse genetic approaches, genetic interactions between genes (genetic enhancers and suppressors), transcription technology, and systematic genetic strategies. Letter grading.

254C. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisites: courses 254A, Molecular Biology, and one of the following: sorting complex problems in cell biology. Experimental approaches used to define mechanisms involved in protein targeting, cell structure and subcellular organization, cell communication, and intracellular signaling. Analysis of pathways that connect these cellular processes. Letter grading.
Biology
See Ecology and Evolutionary Biology

Biomathematics / 197

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. Requisite: Mathematics 32A. Designed for upper division science majors and biomedical graduate students. Introduction to modeling cells and cell systems, including intracellular biochemical networks, applications to cancer research. How to develop one’s own computer models using IMSL mathematics subroutines. P/NP or letter grading.

108. Introduction to Modeling in Neurobiology. (4) Lecture, four hours; computer laboratory, two hours. Preparation: some computer programming. Requisite: Mathematics 32A. Designed for upper division science majors and biomedical graduate students. Survey of wide variety of topics in neurobiological modeling, including neuronal modeling systems. Development of skills to formulate and program one’s own studies using IMSL mathematics subroutines. P/NP or letter grading.

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 applied to selected examples in physiology and biology. P/NP or letter grading.

110A. Introductory Biomathematics for Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Elementary statistics course that focuses on statistical concepts and critiques literature, with emphasis on clinical research. Output from statistical computer packages discussed in class, but students do not use computer themselves. Topics include descriptive statistics, t-tests, confidence intervals, linear regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination, article interpretation. P/NP or letter grading.

170A. Introductory Biomathematics for Medical Investigators. (4) Lecture, three hours; discussion, one hour. Intensive elementary statistics course emphasizing design and data evaluation in observational studies and experiments/clinical trials. Statistical topics include study design, descriptive statistics, elementary probability and distributions, confidence intervals and hypothesis testing, sample size and power, linear regression and correlation, analysis of variance, nonparametric statistics. Applications to biomedical literature and design of clinical trials. Letter grading.

170B. Statistical and Mathematical Modeling in Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Second course in biomathematical methods. Topics include randomization methods, intermediate experimental design, contingency table analysis, analysis of variance, multiple linear regression, nonlinear regression, methods of classification, model checking, basic mathematical models including compartment models, and statistical computer software. Students have opportunity to design their own experiments and analyze them on computer, and to analyze previously collected data. P/NP or letter grading.

190HA-190HB. Honors Research in Biomathematics. (4-4) Tutorial, to be arranged. Limited to juniors/seniors. Individual research in some aspect of biomathematics designed to acquaint students in depth with mathematical models and computer applications
in biology. Must be taken for at least two terms and for total of at least 8 units. Thesis required. P/NP or letter grading.

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

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

Graduate Courses


201. Deterministic Models in Biology. (4) Lecture, three hours; discussion, one hour. 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 models, enzyme kinetics, physiological control systems, and cellular/animal population models. S/U or letter grading.


M203. Stochastic Models in Biology. (4) (Same as Human Genetics M203.) Lecture, four hours. 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 drawn from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. (4) Lecture, four hours. Preparation: knowledge of calculus, differential equations, and partial differential equations. Introduction to concepts, equations, and approximations that describe structure and function of biological systems, evolutionary principles, and network design and dynamics. Topics include cancer initiation and progression, gene expression, epistasis, response to fluctuating environments, network structure, and functional traits. S/U or letter grading.

M205A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M272 and Human Genetics M205A.) 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 M210A, 110B. Various methods of computer-orientated human genetic analysis. Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M207A; students may take either and are encouraged to take both. S/U or letter grading.

208A. Modeling in Neurobiology for Mathemat-icians. (4) Lecture, four hours; laboratory, two hours. Preparation: prerequisite knowledge of linear algebra, programming experience. Introduction to electrochemical bases for nerve function and mathematical and computational methods for studying this phenomenon. Topics include site of nerve impulse conduction, synaptic transmission, neuronal networks, and control systems. S/U or letter grading.

208B. Modeling in Neurobiology for Biologists. (4) Lecture, four hours; laboratory, two hours. Preparation: lower division calculus, some elementary programming 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 and software systems. S/U or letter grading.

210. Optimization Methods in Biology. (4) Lecture, four hours. Preparation: undergraduate mathematical analysis and linear algebra, with a programming language such as Fortran or C. Modern computational biology relies heavily on finite-dimensional optimization. Survey of theory and numerical methods for optimization and constraints, with applications from genetics, medical imaging, pharmacokinetics, and statistics. S/U or letter grading.

M211. Mathematical and Statistical Phylogenetics. (4) (Same as Biological Chemistry M211.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 110A, 110B, Mathematics 170A. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeny, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computational analysis of phylogenetic data. S/U or letter grading.

212. Nonlinear Dynamics in Biological Systems. (4) Lecture, three hours; discussion, one hour. Required preparation: elementary knowledge of ordinary differential equations, partial differential equations, and computer programming. Mathematical bases of nonlinear dynamics and self-organization in temporal and spatial systems, with applications to biological systems. Topics include bifurcations, low- and high-dimensional patterns, pattern formation in low dimension to pattern formation in high dimension. Use of biologically important examples to illustrate applications of these dynamics, including gene regulation, molecular and cellular processes, and collective behavior. S/U or letter grading.


220. Kinetic and Steady State Models in Pharma-cology and Physiology. (4) Lecture, four hours. Preparation: prerequisite knowledge of linear algebra, differential equations, statistics. Designed for biologists and theoreticians. Modeling and data analysis in pharmacokinetics, enzyme kinetics, and endocrinology. Topics include computer-oriented methods of computer-orientated human genetic analysis. Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M207A; students may take either and are encouraged to take both. S/U or letter grading.

230. Computed Tomography: Theory and Appli-cations. (4) (Same as Biomedical Physics M230.) Lecture, four hours. Computed tomography is a three-dimensional imaging technique being widely used in radiology and is becoming active research area in bio-medicine. Basic principles of computed tomography (CT), various reconstruction algorithms, special character-istics of CT, physics in various biomedical applications. S/U or letter grading.

M231. Statistical Methods for Categorical Data. (4) (Same as Biostatistics M210L.) Lecture; three hours; discussion, one hour. Requisites: Biostatistics 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.

M232. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture; three hours; discussion, one hour. Requisites: 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, likelihood, empirical Bayes, and nonrandom nonresponse models. Emphasis on application of methods to applied problems, as well as on underlying theory. S/U or letter grading.

M234. Applied Bayesian Inference. (Same as Biostatistics M234.) Lecture; three hours; discussion, one hour; laboratory, one hour. Requisites: Biostatistics 115 (or Statistics 100C), 200A. Bayesian approach to statistical inference, with emphasis on biomedical applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, hierarchical Bayesian analysis of linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.


258. Introduction to Clinical Trials. (2) Lecture, two hours. Requisites: courses 170A, 171. Limited to M.S. in Clinical Research students. Introduction to basic principles of good clinical trial design, trial implementation, and analysis. S/U grading.

259. Controversies in Clinical Trials. (2) Lecture, one hour; discussion, one hour. Preparation: completion of professional health sciences or M.D. degree. Required of all M.S. in Clinical Research students. Discussion of and readings on issues of eight published studies of well-known trials with students, faculty and clinical faculty member, and course director. Development of critical ability to evaluate trial design and pitfalls. S/U or letter grading.

M260A-M260B. Methodology in Clinical Research I, II. (4-4) (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Requisites: courses 170A, 265A. Course M260A is requisite to M260B. Preparation: course M260A. 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 Medicine M260C.) Discussion, four hours. Preparation: course M260A. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Medicine M261.) Lecture, 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.

M260A-M260B. Methodology in Clinical Research I, II. (4-4) (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Requisites: courses 170A, 265A. Course M260A is requisite to M260B. Preparation: course M260A. 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 Medicine M260C.) Discussion, four hours. Preparation: course M260A. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.
netic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psychiatry M250.) Lecture, two hours; discussion, one hour. Presentation of various types of scientific writings and their good practice. Details of writing specific coherence, making results, discussion. Writing of review article. Grant submissions: aims, background, results, design. Role of appendices. Communication with lay public. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Medicine M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (M.D., D.D.S., D.N.Sc., or Ph.D.). Overview of principles of clinical pharmacology, especially as it relates to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

265A. Data Analysis Strategies I. (4) Lecture, two hours; laboratory, two hours. Preparation: M.D. or Ph.D. degree. Requisite: course 170A. Designed to provide students with hands-on experience developing and testing hypotheses using various types of databases. Topics include developing testable hypotheses, design and analysis strategies and written presentation of findings. Experience with full process of hypothesis generation, operationalization of variables, data analysis techniques, and presentation of findings so that students are better prepared to complete data analysis, interpretation of results, and written presentation of their findings (e.g., for master’s thesis and subsequent articles). Students encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

265B. Data Analysis Strategies II. (2) Lecture, one hour; laboratory, one hour. Requisite: course 265A. Continuation of course 265A; use of SAS computer language. Letter grading.

266A. Applied Regression Analysis in Medical Sciences. (4) (Formerly numbered 171.) Lecture, three hours; laboratory, one hour. Requisite: course 256A. Continuation of course 265A; use of SAS computer language. Letter grading.

266B. Advanced Biostatistics. (4) (Formerly numbered 266.) Lecture, three hours; discussion, one hour. Requisite: course 265A. Continuation of course 266A. Some traditional multivariate methods, such as principle components, factor analysis, cluster analysis, and more contemporary methods, including recursive partitioning and missing data. Multilevel and longitudinal analysis. Letter grading.

M270. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: course 220 or Bioengineering CM286 or M296A. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M271. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M271 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: Bioinformatics M260A or Statistics M200A or 200A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

273. Stochastic Modeling in Molecular Cellular Biophysics. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 170A or equivalent experience in probability, lower division physics, or physical chemistry. Most molecular systems are large collections of molecules; behavior of such systems is stochastic. Mathematical descriptions of biochemical reactions with and without energy dissipation, molecular structures, and biophysical techniques that measure various biological processes. S/U or letter grading.


M281. Survival Analysis. (4) (Same as Biostatistics M215.) Lecture, three hours; discussion, one hour. Requisite: Biostatistics 115 or Statistics 100C. Statistical methods for analysis of survival data. Longitudinal data analysis, graphing longitudinal data, specifying predictors, modeling variances and covariances, inference, computing, hierarchical models, and random effects. S/U or letter grading.

M284. Methodology of Clinical Trials. (4) (Same as Biostatistics M238B.) Lecture, three hours; discussion, two hours. Requisites: course M281, Biostatistics 200A. Methodological principles of clinical trials, actual practice and principles of trials. Considerable focus on phase two trials and multiclinical phase three trials. Emphasis on major inferential issues. S/U or letter grading.

296A-296B. Advanced Topics in Clinical Pharmacology. (2-2) Lecture, one hour; discussion, one hour. Review of pharmacokinetics, drug metabolism and transport, assessment of drug effects, drug therapy in special populations, and contemporary drug development. S/U or letter grading.

299. Special Topics in Clinical Research. (2 to 4) Seminar, three hours. Requisites: courses M260A, M296A, and M299A. Discussion of current topics in clinical research. Discussion of current research and literature in research specialty of faculty member teaching course. Content varies from term to term and may include lectures from visiting scientists. May be repeated for credit with consent of instructor. S/U or letter grading.

596. Directed Individual Study or Research in Biometrics. (2 to 12) Tutorial, to be arranged. Individual study on topics not yet covered by offerings of department. May be repeated for credit with topic change. S/U or letter grading.

597. Preparation for M.S. or Ph.D. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Individual study. S/U grading.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Preparatory courses at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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

Upper Division Course

199. Directed Research in Biomedical Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Physics and Chemistry of Nuclear Medicine. (4) Lecture, three hours; discussion, one hour. Nuclear structure, statistics of radioactive decay, nuclear reactions and their interaction with matter, nuclear decay processes, nuclear reactions, and compartment models. Physical and chemical properties of radioactive materials used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET. S/U or letter grading.

200B. Nuclear Medicine Instrumentation. (4) Lecture, one hour; laboratory, three hours. Requisite: course 200A. Introduction to nuclear medicine instrumentation, including well ionization chambers, probe and well scintillation detectors, scintillation cameras, and single photon and positron emission computed tomography. S/U or letter grading.

201. Medical Radiation Accelerator Design. (4) Lecture, three hours. Requisite: course 216. Overview of physical principles involved in design of current particle accelerators (electron, proton, heavy particle) and analysis of characteristics of current accelerators and facility design. S/U or letter grading.

202A-202B-202C. Applications of Medical Physics to Clinical Problems. (4-4-4) Clinic, four hours. Selected studies in clinical use of radioisotopes. S/U or letter grading.


204. Introductory Radiation Biology. (4) Lecture, four hours; laboratory, one hour. Production of X rays, basic interactions between X rays and matter, X-ray system components, physics principles of medical radiography, radiographic image quality, fluoroscopy, image intensifiers, special procedures, X-ray protection. Laboratory experiments illustrate basic theory. S/U or letter grading.

205. Physics of Diagnostic Radiology. (4) Lecture, three hours; laboratory, one hour. Production of X rays, basic interactions between X rays and matter, X-ray system components, physics principles of medical radiography, radiographic image quality, fluoroscopy, image intensifiers, special procedures, X-ray protection. Laboratory experiments illustrate basic theory. S/U or letter grading.


208A. Medical Physics Laboratory: Medical Imaging. (4) Discussion, two hours; laboratory, four hours. Requisite: course 205. Hands-on experience performing acceptance testing and quality control checks of imaging equipment such as fluoroscopy, digital subtraction angiography, mammography, ultrasonography, magnetic resonance imaging, computed tomography, and radiography. S/U or letter grading.

208B. Medical Physics Laboratory: Radiation Therapy. (4) Discussion, two hours; laboratory, four hours. Requisite: course 205. Hands-on experience performing acceptance testing and quality control checks of imaging equipment such as fluoroscopy, digital subtraction angiography, mammography, ultrasonography, magnetic resonance imaging, computed tomography, and radiography. S/U or letter grading.


210. Computer Vision in Medical Imaging. (4) Lecture, three hours; discussion, one hour. Requisite: course 210. Focus on image processing applications in digital medical imaging. Topics include region-growing, edge detection, mathematical morphology, clustering, neural networks, and volume rendering in lectures, case studies, and programming projects. S/U or letter grading.

211. Medical Ultrasound. (4) Lecture, 90 minutes; laboratory, two hours. Preparation: one calculus course. Introduction to ultrasound imaging, transducer modeling and design, Doppler and color flow instrumentation, biohazards of ultrasound, ultrasound phantom design, and ultrasound tissue characterization techniques. Laboratory included. S/U or letter grading.

212. Biochemical Basis of Positron-Emission Tomography (PET). (4) Lecture, three hours; discussion, one hour. Prepara- tion: one calculus course. Introduction to PET. S/U or letter grading.

213. Quantitative Autoradiography. (4) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimating brain and heart functions. Topics include 2-deoxyglucose method for metabolic rate; iododeoxyuridine method for DNA synthesis; method for protein synthesis; quantitative receptor autoradiography; neuroanatomy and neurophysiology of autoradiogram and PET scan interpretation. S/U or letter grading.


217. Statistics and Data Analysis in Biomedical Physics. (2) Lecture, two hours; laboratory, one hour. Requisites: Mathematics 31A, 31B, 32A, 32B, 33A, 33B. Introduction to 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 radiological sciences. Letter grading.

218. Radiologic Functional Anatomy. (2) Lecture, two hours. Introduction to human anatomy, cell biology, and physiology as visualized through microscopy, medical imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Formerly numbered 219.) (Same as Bioengineering M219.) Lecture, three hours; discussion, one hour. Introduction to magnetic resonance (MR) physics, and imaging formation. Emphasis on hardware, Bioequations, analytic expressions, image contrast mechanisms, spin and gradient echoes, Fourier transform imaging methods, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quantitative imaging, and spectroscopy. Letter grading.

220A-220B-220C. Laboratory Rotations in Biomedical Physics. (2-2) Laboratory, two hours. Laboratory projects to provide students with introduction to field. One oral and one written presentation required. S/U grading.

221. Applied Health Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 216. Introduction to radiation safety and applications. Introduction to all regulatory issues pertaining to medical uses of radioactivity. Letter grading.


223. Seminar: Radiation Biology. (4) Seminar, four hours. Exploration of physiological and molecular mechanisms that impact on response of normal and malignant tissues to ionizing radiation, with particular emphasis on critical and high in-depth analysis of approaches through which such responses can be mod- ified in therapeutic setting. Understanding of rationale for integrating biological imaging into processes of treatment planning and delivery. S/U grading.

225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) Lecture, four hours. Requisite: course M219. Introduction to magnetic resonance contrast mechanisms, and applications in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, measuring tissue perfusion and perme-
ability, advanced diffusion and q-space analysis, chemical exchange and magnetization transfer imaging, and S/U grading.

227. Human Disease: Current and Future Role of Biomedical Physics. (4) Lecture; three hours; discussion, one hour. Present and future roles of biomedical physics in diagnosis and treatment of human disease, with a focus on interdisciplinary nature of this field. Exploration of two diseases in depth with detailed description of roles of physics-based diagnostic imaging and therapeutic options for each disease. Discussion of current and future technologies, as well as techniques that exploit interaction between diagnosis and therapy. Letter grading.

M230. Computed Tomography: Theory and Applications. (4) (Same as Biomatics M230.) Lecture, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.

260A-260B-260C. Seminars: Biomedical Physics. (1-1-1) Seminar, one hour. Joint critical study by students and instructors in fields of knowledge pertaining to biomedical physics. Periodic contributions by visiting scientist. Discussion of research in progress. Student presentations required in spring term. May be repeated. S/U (260A, 260B) and letter (260C) grading.

M248. Introduction to Biological Imaging. (4) (Same as Bioengineering M248 and Pharmacology M248) Lecture, three hours; laboratory, one hour; outside study, seven hours. Practical application of magnetic resonance imaging (MRI) and analysis, including current research in MRI imaging, with emphasis on data acquisition in biomedical imaging, including both structural and functional studies. Instruction more intensive than mathematical. Letter grading.


269. Seminar: Medical Imaging. (1) Seminar, one hour. Critical study of diagnostic imaging techniques in medical imaging. Topics of current interest in medical imaging, with lecturers from department, other universities, and private industry. S/U or letter grading.


495. Special Studies in Biomedical Physics. (4) Seminar, two hours; laboratory, four hours. Teaching assistant in graduate laboratory courses under supervision of faculty member. May be repeated for credit. S/U or letter grading.

595. Research in Biomedical Physics. (4 to 12) Tutorial, to be arranged. Directed individual study or research. Only one 596 course may be applied toward M.S. degree requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged. 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) Tutorial, to be arranged. Two 598 courses (or 596 and 596 combined) may be applied toward M.S. degree requirements. May be repeated. S/U grading.


Undergraduate Study

Biomedical Research Minor

Admission to the Biomedical Research minor is competitive, and application follows completion of Biomedical Research 5HA, Honors College 70A, Life Sciences 104H, or an approved alternative course. Applications must be submitted no later than the first term of the junior year. Students must be in good academic standing and demonstrate a genuine interest in research. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Required Lower Division Courses (9 units): Biomedical Research 5HB (or an approved alternative course) and Molecular, Cell, and Developmental Biology 60.

Required Upper Division Courses (24 units): (1) Sixteen units (four courses) of approved laboratory research through either course 198 or 199; (2) one history of science or philosophy of science course selected from History 179A, 179B, 180A, Neurobiology M168, M169, Philosophy 124, 125, 132, or 155; and (3) Biomedical Research 193H and 194H, or the required journal club seminars (such as Biological Chemistry 191 and Chemistry and Biochemistry 193A) for students in the Howard Hughes Undergraduate Research Program, MARC, or UC LEADS.

Students are expected to file a senior research thesis after completion of their 16 research units and must participate in at least one conference in which they present their research. Up to 8 units of research may be applied toward departmental requirements for the major. The research project and thesis may be the same as those for departmental honors.

Transfer credit for any required course is subject to approval. Students with a grade of less than B (3.0) in any minor course or a cumulative grade-point average of less than 3.0 are subject to dismissal from the minor.

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

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Scope and Objectives

The Biomedical Research minor is designed to incorporate research into undergraduate science education at UCLA. Applications may be submitted by any UCLA student who meets the admission requirements and has the potential to satisfy the requirements. Students explore the scientific questions and experimental approaches of biomedical research. Faculty members and staff facilitate early placement of students into laboratories on campus for independent research. Students are trained to analyze research literature, present their research in oral and poster formats, and appreciate the ethical, historical, and philosophical issues facing biomedical research.
Biomedical Research

Lower Division Courses

5HA. Biomedical Research: Concepts and Strategies. (4) Lecture, three hours. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Student investigation of one or more laboratories on campus and presentation of brief synopsis of single research project from one laboratory. Letter grading.

5HB. Biomedical Research: Essential Skills and Conventions. (4) Lecture, three hours; discussion, one hour. Requisite: course 5HA. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Top- ics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Student investigation of one or more laboratories on campus and presentation of brief synopsis of single research project from one laboratory. Letter grading.

Upper Division Courses

193H. Journal Club Seminars: Current Topics in Biomedical Research. (2) Seminar, two hours. Limited to Biomedical Research minor students. Presentation and discussion of recent papers from primary literature in biosciences. Letter grading.

194H. Research Group Seminars: Data Presentation in Biomedical Research. (2) Seminar, two hours. Requisite: course 193H. Limited to Biomedical Research minor students. Preparation of oral presentations based on student laboratory research at UCLA. May be repeated for credit. Letter grading.

199. Directed Biomedical Research. (4) Tutorial, 12 hours. Limited to Biomedical Research minor students. Supervised individual research under guidance of faculty mentor. Culuminating report describing progress and signed by student and faculty mentor required. May be repeated for credit. Individual contract required. Letter grading.

BIOSTATISTICS

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Professors

Thomas R. Belin, Ph.D.
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William G. Cumberland, Ph.D.
Dorota M. Dabrowa, Ph.D.
Robert M. Elashoff, Ph.D.
Stefan Horvath, Ph.D., Sc.D.
Gang Li, Ph.D.
Matthew Liu, Ph.D.
Janet S. Sinheimer, Ph.D.
Marc A. Suchard, Ph.D.
Robert E. Weiss, Ph.D.
Wen Kooe Wong, Ph.D.

Professors Emeriti

Abdelmonem A. Afifi, Ph.D.
Nancy G. Berman, Ph.D.
Potter C. Chang, Ph.D.
Virginia A. Clark, Ph.D.
Frederick J. Dorey, Ph.D.
Donald Guthrie, Ph.D., in Residence
Robert J. Jennrich, Ph.D.

Associate Professors

Christina Ramirez Kitchen, Ph.D.
Catherine A. Sugar, Ph.D., in Residence

Assistant Professors

Tina D. Cunningham, Ph.D., in Residence
Rajesh R. Nandy, Ph.D.
Donatella Telesca, Ph.D.

Lecturers

Jeffrey A. Gornbein, Dr. P.H.
Fei Yu, Ph.D.

Adjunct Professors

David W. Gjertson, Ph.D.
Martin L. Lee, Ph.D.
James W. Sayre, Dr. P.H.

Adjunct Associate Professor

Catherine M. Crespi, Ph.D.

Adjunct Assistant Professors

Karabi Nandy, Ph.D.
Angela P. Presson, Ph.D.

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 statistical 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 those projects. 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, and survey research. There has always been a strong demand for well-trained biostatisticians; graduates have had little difficulty finding employment well suited to their particular interests.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/llibrary/pgmrqintro.htm. 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 occurring in biological sciences. Topics include distributions, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 100A. Not open for credit to students with credit for course 110B. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

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 100A. 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.

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

Graduate Courses

200A. 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.


201A. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour, laboratory, one hour. Requisite: courses 100A and 100B, or 110A and 110B. Designed for master's and doctoral students in fields outside biostatistics. Topics in linear regression and other related methods. When and how to use linear regression and related methods and how to properly interpret results. Heavy emphasis on practical application as opposed to theoretical development. S/U or letter grading.

201B. Topics in Applied Regression. (4) Formerly numbered 201.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 201A. Further studies in multiple linear regression, including
applied multiple regression models, regression diagnostics and model assessment, factorial and repeated measures analysis of variance models, nonlinear regression, logistic regression, propensity scores, matching versus stratification, Poisson regression, and classification trees. Applications to biomedical and public health scientific problems. Letter grading.

202A. Topics in Estimation. (4) (Formerly numbered 295.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of calculus and linear algebra. Introduction to main principles of probability, random variables, discrete and continuous distributions, bivariate distributions, and distributions of functions of random variables. Letter grading.

202B. Topics in Multivariate Methods. (4) (Formerly numbered 115.) Lecture, three hours; discussion, one hour. Requisite: course 202A. Basic concepts, sufficiency, biasedness, approximation methods in statistics, nonparametric models and estimations methods, maximum likelihood estimation, M-estimation, Bayesian estimation, and hypothesis testing. Letter grading.

M206A-M206B-M206C. Statistics in Psychiatric and Biobehavioral Research. (2-2-2) (Same as Psychiatry M206A-M206B-M206C.) Seminar, 90 minutes; discussion, one hour. Designed for graduate students. Examples from psychiatric literature used to illustrate statistical ideas and analysis strategies. Topics include experimental designs, sample size calculation, 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, Economics M208, and Sociology M213A.) Lecture, four hours; Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

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 to experimental assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling, S/U or letter grading.

M210. Statistical Methods for Categorical Data. (4) (Same as Biostatistics M231.) Lecture, three hours; discussion, one hour. Preparation: courses 100A 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 208B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in Epidemiology 200B, 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.


M215. Survival Analysis. (4) (Same as Biostatistics M281.) Lecture, three hours; discussion, one hour. Requisites: course 110B, 210B. Survival models and statistical methods for analysis of survival data. S/U or letter grading.


M220. Advanced Experimental Statistics. (4) (Same as Physiological Science M200.) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and other methods to test parameters. Requisites: Introduction to Statistics 210A or 210B. Letter grading.

230. Statistical Graphics. (4) Lecture, three hours; discussion, one hour. Laboratory, one hour. Requisite: courses 100A, 110B, 210B. 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 Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisite: 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 regression response models. Emphasis on application of methods to applied problems, as well as on underlying theory. S/U or letter grading.


M234. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 115 (or Statistics 100C), 200A. Bayesian approach to statistical estimation on biomedical applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conditional priors, Gibbs sampling, decision theory, and model selection. Bayesian hypothesis testing, and numerical methods. S/U or letter grading.


M236. Longitudinal Data. (4) (Same as Biostatistics M236.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: course 200A, one other 200-level biostatistics or statistics course. Longitudinal data analysis, graphing longitudinal data, specifying predictors, modeling variances and covariance, inference, computing, hierarchical models, and random effects models. Letter grading.

M237. Applied Genetic Modeling. (4) (Same as Biostatistics M237 and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: courses 110A, 110B. Methods of computer-oriented human genetic analysis. Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M222; students may take either and are encouraged to take both. S/U or letter grading.


M239. Mathematical and Statistical Phylogenetics. (4) (Same as Biomathematics M211 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Requisites: Statistics 202A, Mathematics 170A. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeny, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

240. Master’s Seminar and Research Resources for 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 citation style and choice of key words. Discussion of journal article preparation and submission format and refereeing process to help students make progress on their master’s reports. Letter grading.


250A-250B. Linear Statistical Models. (4-4) Lecture, three hours; discussion, one hour. Preparation: one upper division three-term 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. Requisite: course 250A. Multivariate analysis as used in biological and medical situations. Topics from multivariate distributions, component analysis, factor analysis, discriminant analysis, ANOVA, MANCOVA, longitudinal models with random coefficients. S/U or letter grading.


273. Classification and Regression Trees (CART) and Other Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 200C. Instruction in use of statistical tools in analysis of large datasets. Classification and regression trees as well as other adaptive algorithms, implementation of CART and other software and other programs to real datasets. S/U or letter grading.


M278. Statistical Analysis of DNA Microarray Data. (4) (Same as Human Genetics M278.) Lecture, three hours. Requisite: course 200C. Instruction in use of statistical tools used to analyze microarray data. Structure corresponds to analytical protocol investigators 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 M210 through 219 or 270 through 276 or in other courses. Possible topics include time-series analysis, classification procedures, correspondence analysis, etc. S/U or letter grading.

288. Seminar: Statistics in AIDS. (2) Seminar: two hours. Requisite: course 100B. Special topics in applied statistics not covered in other courses in the professional series. S/U or letter grading.

295. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean. 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.

566. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May be repeated for credit. Letter grading.

999. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.
Vasilios I. Manousiouthakis, Ph.D.
Harold G. Monbouquette, Ph.D.
Selim M. Senkan, Ph.D.
Yi Tang, Ph.D.

Professors Emeriti
Eldon L. Knuth, Ph.D.
Ken Nobe, Ph.D.
William D. Van Vorst, Ph.D.
Vincent L. Vilter, Ph.D.
A.R. Frank Wazzan, Ph.D., Dean Emeritus

Associate Professor
Tatiana Segura, Ph.D.

Assistant Professors
Gerassimos Orkoulas, Ph.D.
Tatiana Segura, Ph.D.

Scope and Objectives
The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs of teaching and research that focus on the areas of cellular and biomolecular engineering, systems engineering, and advanced materials processing and span the general themes of energy/environment and nanoengineering. Aside from the fundamentals of chemical engineering (applied mathematics, thermodynamics, transport phenomena, kinetics, reactor engineering and separations), particular emphasis is given to metabolic engineering, protein engineering, systems biology, synthetic biology, bio-nano-technology, biomaterials, air pollution, water production and treatment, environmental multimedia modeling, pollution prevention, combinatorial catalysis, molecular simulation, process systems engineering, membrane science, semiconductor processing, chemical vapor deposition, plasma processing and simulation, electrochemistry and corrosion, polymer engineering, and hydrogen production.

Students are trained in the fundamental principles of these fields while acquiring sensitivity to society’s needs — a crucial combination needed to address the challenge of continued industrial growth and innovation in an era of economic, environmental, and energy constraints.

The undergraduate curriculum leads to a B.S. in Chemical Engineering, is accredited by ABET and AIChE, and includes the standard core curriculum, as well as biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options. The department also offers graduate courses and research leading to M.S. and Ph.D. degrees. Both graduate and undergraduate programs closely relate teaching and research to important industrial problems.

Undergraduate Study
The Chemical Engineering major is a designated capstone major. The capstone project requires students to first work individually and learn how to integrate chemical engineering fundamentals taught in prior required courses; they then work in groups to produce a paper design of a realistic chemical process using appropriate software tools. Graduates should be able to design a chemical or biological system, component, or process that meets technical and economical design objectives, with consideration of environmental, social, and ethical issues, as well as sustainable development goals. In addition, they should be able to apply their knowledge of mathematics, physics, chemistry, biology, and chemical and biological engineering to analysis and design of chemical and biochemical processes and products; function on multidisciplinary teams; identify, formulate, and solve complex chemical and biological engineering problems; and communicate effectively, both orally and in writing.

Chemical Engineering B.S. Capstone Major
The ABET-accredited chemical engineering curricula provide a high quality, professionally oriented education in modern chemical engineering. The biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options provide students an opportunity for focus on a field of chemical and biomolecular engineering. In all cases, balance is sought between engineering science and practice.

Chemical Engineering Core Option
Preparation for the Major
Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Computer Science 31; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major
Required: Chemical Engineering 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, Chemistry and Biochemistry 113A, 153A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 113A, 114, 115, or one biomedical elective course (4 units) from Chemical Engineering 124, CM127, C135, or CM145 (course CM145 is recommended; another chemical engineering elective may be substituted with approval of the faculty adviser). For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Biomedical Engineering Option
Preparation for the Major
Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Computer Science 31; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major
Required: Chemical Engineering 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, Atmospheric and Oceanic Sciences 104, Chemistry and Biochemistry 113A, 153A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 113C, 114, 115, or one biomedical elective course (4 units) from Chemical Engineering 113A, 114, 115, or CM145 (another chemical engineering elective may be substituted with approval of the faculty adviser). For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Semiconductor Manufacturing Engineering Option
Preparation for the Major
Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Computer Science 31; Mathematics 31A,
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Chemical and Biomolecular Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Chemical Engineering.

Chemical Engineering

Lower Division Courses

2. Technology and Environment. (4) Lecture, four hours; outside study, eight hours. Natural and anthropogenic flows of materials at global and regional scales. Case studies of natural cycles include global warming (CO2 cycles), stratospheric ozone depletion (chlorine and ozone cycles), and global nitrogen cycles. Flow of materials in industrial economies compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products.

10. Introduction to Chemical and Biomolecular Engineering. (1) Lecture, one hour; outside study, two hours. General introduction to field of chemical and biomolecular engineering. Description of how chemical and biomolecular engineering analysis and design skills are applied for creative solution of current technological problems in production of microelectronic devices, design of chemical plants for minimization of environmental impact, application of nanotechnology to chemical sensing, and genetic-level design of electronic devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, metallization, and statistical design of experiments and error analysis. Presentation of student results in both written and oral form.

10. Introduction to Chemical and Biomolecular Engineering Laboratory. (1) Laboratory, one hour; discussion, one hour; outside study, seven hours. Practical testing includes transistors, diodes, and capacitors. 


101C. Mass Transfer. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101B. Introduction to analysis of mass transfer in systems of interest to chemical engineering practice. Fundamentals of mass transport species, Fick’s law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multicomponent systems. Letter grading.

102A. Thermodynamics I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to thermodynamics of chemical and biological processes. Law of thermodynamics, heat, work, and energy. Second law of thermodynamics. Second law, extremum principles, entropy, and free energy. Ideal and real gases, properties, evaluation. Thermodynamics of flow systems. Applications of first and second laws in biological processes and living organisms. 


103. Separation Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 101B. Application of principles of heat, mass, and momentum transport to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. 

104A. Chemical and Biomolecular Engineering Laboratory I. (4) Formerly numbered 104AL. Lecture, two hours; laboratory, outside study, four hours. Requisite: course 100. Corequisite: course 101B. Recommended: course 102B. Not open for credit to students with credit for former course 104AL. Investigation of basic transport phenomena in 10 pre-determined experiments, collection of data for statistical analysis and individually written technical reports and group presentations. Design and performance of one original experimental study involving transport, separation, or another aspect of chemical and biomolecular engineering. Basic statistics; mean, standard deviation, confidence limits, comparison of two means, and of multiple means, single and multiple variable linear regression, and brief introduction to factorial design of experiments. Oral and poster presentations.

104B. Chemical and Biomolecular Engineering Laboratory II. (4) Lecture, four hours; laboratory, eight hours; outside study, four hours; other, two hours. Requisites: courses 101C, 103, 104A. Course consists of four experiments in chemical engineering unit operations, each of two weeks duration. Students present their results both written and orally. 

104C. Semiconductor Processing. (3) Lecture, four hours; outside study, five hours. Requisite: course 101C. Enforced corequisite: course 104AL. Corequisite: course 104CL. 

104CL. Semiconductor Processing Laboratory. (3) Laboratory, four hours; outside study, five hours. Enforced corequisite: course 101C. Corequisite: course 104CL. 

104D. Molecular Biotechnology Laboratory: From Gene to Product. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 101C, 1025. Corequisite: course 104DL. 

104DL. Molecular Biotechnology Laboratory: From Gene to Product. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 101C, 1025. Corequisite: course 104DL. Evaluation of molecular and engineering techniques in modern biotechnology. Cloning of protein-coding gene into plasmid, transformation of construct into E. coli, production of gene product in bioreactor, downstream processing of bioreactor broth to purify recombinant protein, and characterization of purified protein.

104E. Molecular Biotechnology Laboratory: From Gene to Product. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 101C, 1025. Corequisite: course 104EL. 

105. Process Dynamics and Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 103 or 125, 106 or 115. Introduction to chemical control elements. Design and applications of chemical process computer control. 

108A. Process Economics and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 103 or 125, 104AL, 106 or C115. Integration of chemical engineering fundamentals such as transport phenomena, thermodynamics, separation operations, and reaction engineering and simple economic concepts for purpose of designing chemical processes and evaluating alternatives.

108B. Chemical Process Computer-Aided Design and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 103 or 125, 106 or C115, 108A. Computer Science 31. Introduction to application of some mathematical and computing methods to chemical engineering design problems; use of simulation programs as automated method of performing steady state material and energy balance calculations.

Upper Division Courses

100. Fundamentals of Chemical and Biomolecular Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: chemistry 20B, 20L, Mathematics 32B (may be taken concurrently). Physics 1A. Introduction to analysis and design of chemical processes. 

206 / Chemical and Biomolecular Engineering
109. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Computer Science 31. Corequisite: course 101A. Numerical methods for computation of solution of systems or linear and nonlinear algebraic equations, ordinary differential equations, and partial differential equations. Programming examples used throughout to illustrate application of these methods. Use of MATLAB as platform (pro- gramming environment) to write programs based on numerical methods to solve various problems arising in chemical engineering. Letter grading.

110. Intermediate Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requirements: Principles and applications of statistical and phenomenological thermodynamics. Determination of partition function in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and solution; nonequilibrium thermodynamics and coupled transport processes. Letter grading.

C111. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102A, 102B (or Materials Science 130). Fundamentals of cryogenics and cryogenic science pertaining to industrial low-temperature processes. Basic approaches to cryofluids and equipment 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.

C112. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymerization techniques, polymer characterization. Mechanical properties. Rheology of macromolecules, polymer process engineering. Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C212. Letter grading.

113. Air Pollution Engineering. (4) Lecture, four hours; preparation, two hours; outside study, six hours, seven hours. Requisites: courses 101C, 102B. Integrated approach to air pollution, including concentrations of atmospheric pollutants, air pollution standards, air pollution sources and control technology, and relationship of pollution to environmental sources. Links air pollution to multimedia environmental assessment. Letter grading.

C114. Electrochemical Processes and Corrosion. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102A, 102B. Integrated approach to air pollution, including concentrations of atmospheric pollutants, air pollution standards, air pollution sources and control technology, and relationship of pollution to environmental sources. Links air pollution to multimedia environmental assessment. Letter grading.

C115. Biochemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101C. Use of previ- ously learned concepts of biophysical chemistry, bio- logistics, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course C214. 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 solid- state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state lasers. May be concurrently scheduled with course C216. Letter grading.

C118. Multimedia Environmental Assessment. (4) Lecture, four hours; discussion, one hour; prepara- tion, two hours. Concurrently scheduled with course C218. Letter grading.

C119. Pollution Prevention for Chemical Process- es. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 108A. Systems and other special conditions. Concurrently scheduled with course C219. Letter grading.

C121. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 101A, 101C, 102A. Structure and function of synthetic mem- branes and use of membrane technology in environmental, industrial, and health-related processes. Letter grading.


C125. Bioseparations and Bioprocess Engineer- ing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Separation strategies, unit operations, and economic factors used to design processes for isolating and pu- rifying materials like whole cells, enzymes, food addi- tives, or pharmaceuticals that are products of biologi- cal reactors. Concurrently scheduled with course CM225. Letter grading.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemistry CM127.) Lecture, four hours; discus- sion, one hour; outside study, seven hours. Requisi- sites: Chemistry 153A, Life Sciences 3, 23L. Engi- neering microorganisms for complex phenotype is common in nature but can be engineered. Introduction to synthetic biology: Production of advanced biofuels involves de- signing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biotechnology, engineering, and molecular biology and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of met- abolic biochemistry, protein structure and function, and bioengineering of metabolic pathways for met- abolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.

C135. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced process control. Topics include (1) Lyapu- nov stability for autonomous nonlinear systems in- cluding converse theorems, (2) input to state stability, interconnected systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control of linear and nonlinear systems, (5) advanced methods for tuning of classical controllers, and (6) in- troduction to control of distributed parameter systems. May be concurrently scheduled with course C235. Letter grading.


CM145. Molecular Biotechnology for Engineers. (4) (Same as Bioengineering CM145.) Lecture, four hours; discussion, one hour; outside study, 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 ex- pression, directed mutagenesis and protein engineer- ing, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and functional genomics, gene therapy, and tissue engineering. Concurrently sched- uled with course CM245. Letter grading.

188. Special Courses in Chemical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/se- niors. Supervised individual research or investigation of selected topic under guidance of faculty mentor. Culuminating paper or project required. May be repeat- ed for credit with school approval. Individual contract required; enrollment permission required from Office of Academ- ic and Student Affairs. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requi- site: course 200B. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forc- es in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 200 or Chemistry C223A or Physics 215A. Modern simulation techniques of molecular systems. Monte Carlo and molecular dynamics in vari- ous ensembles. Applications to liquids, solids, and polymers. Letter grading.


C211. Cryogenics and Low-Temperature Process- es. (4) Lecture, four hours; discussion, one hour; out- side study, seven hours. Requisites: courses 102A, 102B (or Materials Science 130). Fundamentals of cryogenics and cryoengineering science pertaining to industrial low-temperature processes. Basic ap-
proaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temper-ature kinetic modeling, optimization of cryosys-
tems and other special conditions. Concurrently scheduled with course C111. Letter grading.

C212. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C101A. Use of polymer technologies and systems in product design. Examination of polymer properties and microstructure, processing, mechanical properties, and applications. Concurrently scheduled with course C112. Letter grading.

C214. Electrochemical Processes and Corrosion. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102A, 102B. Fundamentals of electrochemical processes and their applications. Examination of electrochemical systems and corrosion processes. Concurrently scheduled with C211. Letter grading.

C218. Multimedia Environmental Assessment. (4) Lecture, four hours; discussion, one hour; prepara-
tion, two hours; outside study, five hours. Requisite: course C114. Use of multimedia in environmental assessment. Examination of multimedia technologies, policies and regulations affecting the environment, and the role of multimedia in communication and public participation. Concurrently scheduled with course C116. Letter grading.

C219. Pollution Prevention for Chemical Processes. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: course C114. Transport phenomena in environmental systems. Examination of environmental systems and their interactions. Examination of pollution prevention strategies and their implementation. Concurrently scheduled with course C118. Letter grading.

C220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course C101C. Advanced mass transfer and its applications to industrial separation processes, gas cleaning, pulmonary bioengineering, controlled re-
lease systems, and reactor design; molecular and constitutive theories of diffusion, interfacial transport, membrane transport, convective mass transfer, concentration boundary layers, turbulent transport. Letter grading.

C221. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: courses 101A, 101C, 103. Fundamentals of membrane science and technology, with emphasis on separations at micro, nano, and molecular/angstrom scale with membranes. Re-
ation of principles underlying membrane separation processes. ""
Discussion of gene-metabolic network synthesis. Let-
transformation 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). The Chemistry/Materials Science major is designed primarily for students in chemistry who want an emphasis on material properties.

Undergraduate Study

Admission

Students entering UCLA directly from high school who declare a Chemistry, Biochemistry, or Chemistry/Materials Science major at the time of application are automatically admitted to that major.

UCLA students who wish to enter one of the majors must have a minimum grade of C– in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students

Transfer applicants to the departmental majors with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory in addition to the other courses listed above.

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 four majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, General Chemistry, and Chemistry/Materials Science. The Chemistry and Biochemistry majors are designed to prepare students for graduate studies in each field, for entry into professional schools in the health sciences, and for careers in industries and businesses that depend on chemically and biologically based technology. The General Chemistry major is intended for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The Chemistry/Materials Science major provides appropriate preparation for graduate studies in fields that emphasize research involving chemistry, engineering, and applied science.

Each course used to fulfill any of the requirements for any of the departmental majors must be taken for a letter grade. Seminar courses, individual study courses, and research courses (e.g., 194, 199) may not be applied toward the requirements for the majors.

Requirements for the majors are outlined below. For additional information, contact the Undergraduate Advising Office in 4006 Young Hall.

Chemistry B.S.

The Chemistry major is for students who intend to pursue a career in chemistry.

Chemistry Concentration

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33B; Physics 1A, 1B, and 1G (or 1AH, 1BH, and 1CH), 4BL.

The Major

Required: Chemistry and Biochemistry 110A, either 110B or 113B, 113A, 114 (or 114H), either 136 or 144, 153A, 153L, 171, 172, and two other upper division or graduate courses in the department, including at least one additional laboratory course from 136, 144, 154, C174, 184, C185.

Physical Chemistry Concentration

The physical chemistry concentration is designed primarily for students who are interested in attending graduate school in physical chemistry/physics or related areas.

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL; Mathematics 31A, 31B, 32A, 32B, 33A,
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.

Chemistry/Materials Science B.S.

The Chemistry/Materials Science major is designed for students who are interested in chemistry with an emphasis on material properties and provides students the opportunity to gain expertise in both chemistry and the science and engineering in materials such as semiconductors, photonic materials, polymers, biomaterials, ceramics, and nano-scale structures. Students explore the reactivity of such materials in different environments and gain understanding of how chemical compositions affect properties. The major provides appropriate preparation for graduate studies in many fields emphasizing interdisciplinary research, including chemistry, engineering, and applied science.

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C; 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 (or 6AH, 6BH, and 6CH).

The Major

Required: Chemistry and Biochemistry 110A, 153A, 153B, 153C, 153L, 154, 156; one additional upper division or graduate course in chemistry and biochemistry; and three elective upper division or graduate courses (12 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 highly recommended). Refer to the Undergraduate Advising Office website at http://www.chemistry.ucla.edu/pages/programs for a list of approved electives.

General Chemistry B.S.

The General Chemistry major is for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The requirements are accordingly quite flexible. The major may be appropriate for some students who plan to enter professional schools, such as those of pharmacy, dentistry, or public health. This major cannot be taken as part of a double major. Students must declare the major before reaching 135 units.

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major

Required: Chemistry and Biochemistry 110A, 153A, 153L, 171; three additional upper division courses in the department (at least one must be a laboratory course); six additional upper division 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.

Chemistry/Materials Science B.S.

The Chemistry/Materials Science major is designed for students who are interested in chemistry with an emphasis on material properties and provides students the opportunity to gain expertise in both chemistry and the science and engineering in materials such as semiconductors, photonic materials, polymers, biomaterials, ceramics, and nano-scale structures. Students explore the reactivity of such materials in different environments and gain understanding of how chemical compositions affect properties. The major provides appropriate preparation for graduate studies in many fields emphasizing interdisciplinary research, including chemistry, engineering, and applied science.

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, 1C, 4BL.

The Major

Required: Chemistry and Biochemistry 110A, 113A, 136, 171, C185, 4 units from 110B, C113B, C143A, 144, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 121 or 150 or 160, 131, 8 units from 111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

The following courses may be applied only once toward the major: Chemistry and Biochemistry 172, C180, C181, Materials Science and Engineering 121, 150, 160.

Organic Materials Concentration

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, 1C, 4BL.

The Major

Required: Chemistry and Biochemistry 110A, 113A, 136, 171, C185, 4 units from 110B, C113B, C143A, 144, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150, 4 units from 111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

Honors Program

Admission

The honors program provides exceptional Chemistry and Biochemistry Department majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For further information and application forms, students should consult the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis. To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded honors, honors, or highest honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization

Majors in Chemistry and Biochemistry may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, 20A, 30, or 60, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A. Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.
Graduate Study
Official, specific degree requirements are de-
tailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa
/library/pgmrqintro.htm. In many cases, more
detailed guidelines may be outlined in an-
nouncements, other publications, and websites
of the schools, departments, and programs.

Graduate Degrees
The Department of Chemistry and Biochem-
istry offers Master of Science (M.S.), Candidate
in Philosophy (C.Phil.), and Doctor of Philoso-
phy (Ph.D.) degrees in Chemistry and Master of
Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) de-
grees in Biochemistry and Molecular Biology.

Chemistry and Biochemistry
Lower Division Courses

2. Introductory Chemistry. (4) Lecture, two hours;
discussion, two hours. Not open to students with
credit for course 14A or 20A. Concept of submicro-
scopnic world of chemistry, ranging from protons to
proteins in subject matter. P/NP or letter grading.

7. Nanoscience and Nanotechnology Laboratory. (2)
Seminar, discussion, and laboratory, 32 hours.
Limited to high school students. Key concepts of na-
nascience and nanotechnology, including various
appro-
aches (bottom-up and top-
down). Fabrication of nanostructures and devices,
collection of scientific data using those devices, analy-
sis of data, and presentations of student results. Of-
fered in summer only. P/NP grading.

14A. Atomic and Molecular Structure, Equilibria,
Acids, and Bases. (4) Lecture, three hours; dis-
cussion, one hour. Preparation: high school chemistry
or equivalent background and three and one-half years
of high school mathematics. Not open to students
with credit for course 20A. Introduction to physical
and general chemistry principles; atomic structure
based on quantum mechanics; atomic properties;
trends in periodic table; chemical bonding (Lewis
structures, VSEPR theory, hybridization, and molecu-
lar orbital theory); gaseous and aqueous equilibria;
properties and behavior of organic acids, bases, but-
ters; titrations. P/NP or letter grading.

14B. Thermodynamics, Electrochemistry, Kinet-
ic, and Organic Chemistry. (4) Lecture, three
hours; discussion, one hour. Enforced requisite:
course 14A with grade of C– or better. Enforced corequisite: Mathematics 3A or 31A. Not open to stu-
dents with credit for course 20A, 20B, or 30A. Phase
changes; thermodynamics; first, second, and third
laws of thermodynamics; free energy changes; elec-
trochemistry and its role as energy source; chemical
kinetics, including catalysis, reaction mechanisms,
and enzymes; coordination compounds; general classes and naming of organic molecules; structure,
conformations, and relative energies of organic mole-
cules; application of thermodynamics and kinetics
to organic and biochemical reactions; use of molecular
modeling software to illustrate molecular structures
and their relative energies. P/NP or letter grading.

14BL. General and Organic Chemistry Laboratory I.
(3) Lecture, one hour; laboratory, three hours. En-
forced requisite: course 14A with grade of C– or bet-
ter. Continuing study of 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 me-
ters. Synthesis and kinetics techniques using com-
ponents of interest to students in life sciences. P/NP or
letter grading.

14C. Structure of Organic Molecules. (4) Lecture,
three hours; discussion, one hour. Enforced requisite:
course 14B with grade of C– or better. Not open to
students with credit for course 20A. Continuing stud-
es in structure of organic molecules, with emphasis
on biological applications. Resonance, stereochemis-
try, conjugation, and aromaticity; spectroscopy (NMR, IR,
and mass spectrometry); introduction to effects of
structure on physical and chemical properties; survey
of biomolecular structure. P/NP or letter grading.

14CL. General and Organic Chemistry Laboratory II.
(4) Lecture, one hour; laboratory, three hours. En-
forced requisite: courses 14B and 14BL with grades
of C– or better. Enforced corequisite: course 14C. Syn-
thesis and analysis of compounds; purification by extrac-
tion, chromatography, recrystallization, and sublima-
tion; characterization by mass spectroscopy, UV, NMR,
and IR spectroscopy; optical activity, electro-
chemistry, pH titration. P/NP or letter grading.

14D. Organic Reactions and Pharmaceuticals. (4)
Lecture, three hours; discussion, one hour. Enforced
requisite: course 14C with grade of C– or better. Or-
ganic reactions, nucleophilic and electrophilic substi-
tutions and additions; electrophilic aromatic substitu-
tions; carbonyl reactions; catalysis, molecular basis
drug action, and organic chemistry of pharmaceuti-
cals. P/NP or letter grading.

17. Chemical Principles. (No credit) Lecture, four
hours; laboratory, one hour. Preparation: Chemistry 17.
Replaces 4 units on student’s Study List yet no credit to-
dward degree. Introduction to chemical principles:
numbers, measurements, chemical calculations, gas
laws, solutions, acids, bases, and salts, molecular structure, and nomenclature. Collaborative learning
and problem solving; introduction to chemistry labora-
tory practice. No grading.

20A. General Chemistry Laboratory. (3) 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. Recommended: high school physics.
First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular
structure and bonding, molecular structure, P/NP or letter grading.

20AH. Chemical Structure (Honors). (4) Lecture,
three hours; discussion, one hour. Preparation: high school
chemistry or equivalent background, high school
physics, and three and one-half years of high school mathematics. Honors course parallel to course 20A.
P/NP or letter grading.

20B. Chemical Energies and Change. (4) Lec-
ture, three hours; discussion, one hour. Enforced requi-
sites: course 20A or 20AH, and Mathematics 31A,
with grades of C– or better. Second term of general
chemistry. Basic thermodynamic forces and organization, phase behavior, chemical thermodynamics, solutions,
equilibria, reaction rates and laws. P/NP or letter grading.

20BH. Chemical Energetics and Change (Honors).
(4) Lecture, three hours; discussion, one hour. En-
forced requisites: course 20A and Mathematics 31A,
with grades of B+ or better, or 20AH with grade of B or
better. Honors course parallel to course 20B. Letter
grading.

20L. General Chemistry Laboratory. (3) Lecture,
one hour; laboratory, three hours. Enforced requisite:
course 20A with grade of C– or better. Enforced corequisite: course 20B. Use of balance, volumetric
techniques, volumetric and potentiometric analysis;
Beer’s law, applications for environmental analysis
and materials science. P/NP or letter grading.

30A. Organic Chemistry I: Structure and Reactivi-
ty. (4) Lecture, three hours; discussion, one hour. En-
forced requisite: course 20A with grade of C– or bet-
ter. First term of organic chemistry for Chemistry, Bio-
chemistry, and engineering majors. Covalent bonding,
shapes, stereochemistry, and acid/base properties;
organic molecules; P/NP or letter grading.

30BH. Organic Chemistry I: Reactivity, Synthesis,
and Spectroscopy. (4) Lecture, three hours; discus-
sion, one hour. Enforced requisite: course 30A or 30AH,
with grade of C– or better. Second term of or-
ganic chemistry for Chemistry, Biochemistry, and en-
gineering majors. Properties, synthesis, and reactions of
alcohols, ethers, sulfur compounds, aldehydes, ke-
tones, carboxylic acids, and carboxylic acid deriv-
atives. Organometallic compounds. Organic spectro-
copy, including mass spectrometry, infrared spectro-
copy, and proton and carbon magnetic resonance spectroscopy. P/NP or letter grading.

30BL. Organic Chemistry Laboratory I. (3) Lecture,
one hour; laboratory, six hours. Enforced requisite:
courses 30A or 30AH and 30AL, with grades of C– or better. Enforced corequisite: course 30B. Ba-
sic experimental techniques in organic synthesis (dis-
tillation, extraction, cryoscopy, and performing re-
actions) and organic analytical chemistry (melting and boiling point, refractive index, chromatography, IR,
NMR, GC). Single and multistep synthesis of known organic molecules on microscale level. P/NP or letter grading.

30C. Organic Chemistry III: Reactivity, Synthesis,
and Biomolecules. (4) Lecture, three hours; discus-
sion, one hour. Enforced requisite: course 30B with
grade of C– or better. Introduction to hydrocarbon, nitro,
and aromatic chemistry of pharmaceuticals. Trending topics include discoveries important to medicine, such
as penicillin by Fleming in 1928 and cis-platin by
H. J. C. Sun in 1969 and of radioactivity by Becquerel in 1896. Other
coveries in science that have had significant impact
on biological applications. Resonance, stereochemis-
ty, conjugation, and aromaticity; spectroscopy (NMR,
IR, and mass spectrometry); introduction to effects of
structure on physical and chemical properties; survey
of biomolecular structure. P/NP or letter grading.

30CL. Organic Chemistry Laboratory II. (4) Lec-
ture, two hours; laboratory, six hours. Enforced requi-
sites: courses 30B and 30BL, with grades of C– or better. Enforced corequisite: course 30C. Modern
tec-
skills in collaborative learning environment. May be repeated four times, but only one unit may be applied to graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in chemistry and biochemistry for students majoring in sciences and engineering majors. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only one unit may be applied to graduation. P/NP grading.

Upper Division Courses

C100. Genomics and Computational Biology. (5) Lecture, three hours; discussion, one hour. Requisite: course 153B. Introduction for biochemistry students of technology and information that is both molecular biology and computer science courses, as well as computational tools for analyzing them. Biochemistry and molecular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict what happens in complex organism (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, mass spectrometry, and robotics have given biologists incredible new capabilities to analyze complete genomes, expression patterns, functions, and interactions across whole organisms, populations, evolution, and environmental science. Development of intuition and problem-solving skills becomes essential daily activity for biomedical scientists. Core principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C200. P/NP or letter grading.

103. Environmental Chemistry. (4) Lecture, four hours; discussion, one hour. Requisites: courses 30B, 30BL, 113A, Mathematics 13B. Chemical aspects of air and water pollution, solid waste disposal, energy resources, and pesticide effects. Chemical reactions in environment and effect of chemical processes on environment. P/NP or letter grading.

M104. Environmental Chemistry Laboratory. (4) (Same as Atmospheric and Oceanic Sciences M140.) Lecture, two hours; laboratory, three hours. Requisite: course 20B. Laboratory experience for students who wish to have relevant hands-on experience in environmental science. Essential laboratory procedures to be performed in context of timely environmental issues involving smog formation, acid rain, and ozone depletion. Hands-on experience using current environmental science instrumentation and analytical techniques appropriate for environmental assessment. P/NP or letter grading.

C105. Introduction to Chemistry of Biology. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 153A with grade of C– or better. Introduction to chemical biology. Topics include computational chemical biology, utility of synthetic biochemical research, peptidomimetics, designed receptors for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course CM205A. Letter grading.

C108. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, EI/MS, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course CM208L. Letter grading.


111F. Physical Chemistry: Introduction to Statistical Mechanics and Kinetics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 113A, Mathematics 32B. Kinetic theory of gases, principles of statistical mechanics, statistical thermodynamics, equilibrium structure and free energy, relaxation and transport phenomena, macromolecules, and chemical kinetics. P/NP or letter grading.

113A. Physical Chemistry: Introduction to Quantum Mechanics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 20B. Mathematics 32A, 32B, 32B, Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 6A, 6B, and 6C, with grades of C– or better. Departure from classical mechanical positions in particles in atomic and molecular systems; particle-in-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods; perturbation and variational methods; many-electron atoms, spin, and Pauli principle, chemical bonding. P/NP or letter grading.

113B. Physical Chemistry: Introduction to Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Introduction with matter microwave spectroscopy, infrared and Raman spectroscopy, vibrations in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C213B. P/NP or letter grading.

114. Physical Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 110A, and 113A, with grades of C– or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics. Laboratory includes spectroscopy, thermodynamic measurements, and chemical dynamics. P/NP or letter grading.

114H. Physical Chemistry Laboratory (Honors). (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 110A, and 113A, with grades of B or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes topics in physical chemistry to be selected in consultation with instructor. P/NP or letter grading.

C115A-C115B. Quantum Chemistry. (4-4) Lecture, four hours; discussion, one hour. Requisites: courses 113A, 113AH, and 113B, with grades of C– or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 131 and of analytic mechanics equivalent to Mathematics 110A or Physics 115B with grade of C– or better is required to C115B. Students entering course C115A are normally expected to take course C115B in following term. Designated for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques. Approximation methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bond. May be concurrently scheduled with course C215A-C215B. P/NP or letter grading.

C115C. Advanced Quantum Chemistry: Applications. (4) Lecture, three hours; discussion, one hour. Requisites: courses 113A, 113B. Topics in quantum chemistry selected on basis of basic structure, collision processes, theories of solids, symmetry and its applications, and theory of electromagnetic radiation. Concurrently scheduled with course C215C. P/NP or letter grading.

M117. Structure, Patterns, and Polyhedra. (5) (Same as Honors Collegium M180.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with applications and implications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filling), and physics (crystal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

118. Computational Dynamics Laboratory. (4) Lecture, two hours; laboratory, eight hours. Requisites: courses 110A and 110B, with grades of B or better, or equivalent statistical mechanics courses from engineering and mathematics, in many fields, including cell and molecular biology, chemical engineering, chemistry, materials science, and physics. Letter grading.

M120. Soft Matter Laboratory. (4) (Same as Physics M180G.) Laboratory, four hours. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4) Lecture, four hours. Requisite: course 110B. Recommended: course 113A. Topics of considerable research interest presented at level suitable for students who have completed courses in physical chemistry. P/NP or letter grading.

C122. Mathematical Methods for Chemistry. (4) Lecture, four hours. Enforced requisites: Mathematics 33B, 33B, 110A, 113A, Mathematics 20B. Required: prerequisite necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis, and solution of ordinary and partial differential equations, development of problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry. Concurrently scheduled with course C222P. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4-4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: course 113A. Rigorous presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para hydrogen, chemical equilibria, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, elastic and inelastic collisions, high polymeric systems, and a study of complex phenomena. May be concurrently scheduled with course C223A-C223B. P/NP or letter grading.

125. Computers in Chemistry. (4) Lecture, three hours; laboratory, four hours. Requisite: course 113 or 110B. Course work in general programming languages or Fortran IV or PL/1. Requisites: courses 110A, 110B, 113A. Discussion of computer techniques, including matrix manipulation, solution of differential equations, data acquisition, and instrumental control, and their applications to chemical problems in quantum mechanics, thermodynamics, and kinetics. P/NP or letter grading.

C126A. Computational Methods for Chemistry. (4) Lecture, four hours; laboratory, four hours. Preparatory: programming experience in either BASIC, FORTRAN, C, ++, JAVA, or PASCAL. Requisites: courses 110A, 113A, Mathematics 33B. Theoretical, numerical, and programming tools for constructing new chemical applications, including simulation, grid and result visualizing tools and resulting statistical mechanics for simple molecules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C226A. P/NP or letter grading.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemical Engineering CM127.) Lecture, four hours; discussion, one hour. Requisites: course 153A. Life Sciences 3, 23L. Engineering microorganisms for biomass from the complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing microorganisms engineered to operate in highly specific environments suitably designed to produce target compounds. Both development of tools and understanding of the biological processes that allow these systems to function are required in order to understand and control the performance of these systems. P/NP or letter grading.

136. Organic Structural Methods, (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30C and 30CL, with grades of C– or better. Mechanism of organic reactions. Acidity and acid catalysis; linear free energy relationships; isotope effects. Molecular orbital theory; photochemistry; periodicity in biological structures. May be concurrently scheduled with course C243A. P/NP or letter grading.

136B. Biochemistry: DNA, RNA, and Protein Synthesis (Honors), (4) Lecture, three hours; discussion, one hour. Requisites: courses 135A or 135AH, Life Sciences 2, 3. Honors course parallel to course 135B. P/NP or letter grading.

135C. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation, (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

135CH. 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 135C. P/NP or letter grading.

135L. Biochemical Methods I, (4) Lecture, two hours; laboratory, four hours. Enforced requisites: courses 14CL and 14B, or 30B and 30BL, and 153A or 153AH (may be taken concurrently), with grades of C– or better. Integrated term-long project involving characterization of enzyme purified from meat obtained at local butcher. Techniques include amino acid, carbohydrate, and lipid analysis; chromatography; spectrophotometry; and enzyme kinetics. P/NP or letter grading.

145. Theoretical and Computational Introductory Organic Synthesis, (5) Lecture, two hours; laboratory, eight hours. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C242B. P/NP or letter grading.

145A. Structure and Mechanism in Organic Chemistry, (4) Lecture, three hours; discussion, one hour. Requisite: courses 3 and 30CL, with grades of C– or better. Basic physical, chemical, and biological principles in biocatalysis. Materials and strategies for top-down and bottom-up fabrication of biologically derived molecules, characterization and detection techniques, and biomimetic materials and applications at nanoscale. Concurrently scheduled with course C240. P/NP or letter grading.

145B. Mechanism and Structure in Organic Chemistry, (4) Lecture, three hours; discussion, one hour. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C243A. P/NP or letter grading.

146. RNA Structure, Recognition, and Function, (4) Lecture, three hours; discussion, one hour. Requisite: courses 153A, 153B, 153C, 154, Life Sciences 3, 23L. Recent years has seen explosion in biochemical characterization of diverse structures and functions of RNA molecules in metabolism of living systems. RNA has been shown to act both as catalyst in catalytic reactions and as an activator of expression control at every level of gene expression pathways (transcription, RNA processing, translation, degradation). RNA molecules now being used as therapeutic agents in gene therapy approaches. Coverage of these various aspects and in-depth analysis of RNA structure and function, using primary research literature and analysis of molecular structures of RNA and RNA-protein complexes. Letter grading.

151A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism, (4) Lecture, four hours; discussion, one hour. Requisite: course 14D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3. Structure of proteins, carbohydrates, and lipids; enzyme catalysis and principles of metabolism, with emphasis on the mechanisms and factors that control gene expression. Emphasis on understanding of experimental approaches. Concurrently scheduled with course C245. P/NP or letter grading.

152B. Chemistry and Biochemistry, (4) Lecture, four hours; discussion, one hour; tutorial, one hour. Requisite: courses 153A or 153AH, Life Sciences 2, 3. Nucleotide metabolism; DNA replication; RNA repair; transcription, translation; regulation; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153B. Introduction to Bioinformatics, (4) (Same as Computer Science CM121) Lecture, four hours; discussion, two hours. Recommended requisites: Biostatistics 100A or 110A or Mathematics 170A or Statistics 100A, and Computer Science 32 or Program in Computing 10C with grade of C– or better. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and informatics with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM260A. P/NP or letter grading.


156. Metabolic Control by Protein Modification, (4) Lecture, three hours; discussion, one hour. Requisites: courses 152A, 153B, 153C. Biochemical basis of controlling metabolic pathways by posttranslational modification of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course CM267. Letter grading.

164. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of oxygen, its role in metabolic coupling, metabolism of xenobiotics, apoptosis, and aging. Discussion of radical reactions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. These same reactions—“run amok” under certain types of stress and can contribute to widespread variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s), Alzheimers diseases, cardiovascular diseases, atherosclerosis, and aging. Concurrently scheduled with course CM264. P/NP or letter grading.

171. Intermediate Inorganic Chemistry, (4) Lecture, three hours; discussion, one hour. Requisite: course 315 with grade of C– or better. Overview of periodic properties, bonding and structures in solid state; main group transition metal, lanthanide and actinide compounds and reactions; catalysis, spectroscopy, special topics. P/NP or letter grading.
172. Advanced Inorganic Chemistry. (4) Formerly numbered C172.) Lecture, three hours; discussion, one hour; laboratory, four hours. Enforced requisites: courses 30CL and 172, with grades of C– or better. Survey of inorganic reactions; mechanistic principles; electronic structure; transition-metal coordination chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free/radical chemistry; and photochemistry. Concurrency with other courses numbered C172. P/NP or letter grading.

174. Inorganic Reaction Mechanisms. (4) Lecture, three hours. Requisites: courses 110A, 110B, 113A, and 172, with grades of C– or better. Survey of inorganic reactions and mechanism; transition-metal chemistry; Schlenk techniques; chromatographic and ion exchange methods; spectroscopic characterization and literature applications. Concurrently scheduled with course C274. P/NP or letter grading.

175. Inorganic Chemistry. (4) Lecture, three hours. Requisites: courses 110A, 110B, 113A, and 172, with grades of C– or better. Synthesis of inorganic complexes; air-sensitive materials. Concurrency with courses C174, C180, and 172, with grades of C– or better. Lecture, three hours; discussion, one hour; laboratory, four hours. Enforced requisites: courses 110A and 113A, with grades of C– or better. Training and supervised practicum for advanced undergraduate students to assist in chemistry and biochemistry lectures. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. May not be applied toward toward upper-division chemistry major requirements. Individual contract required. Information and contracts may be obtained from department. P/NP grading.

192A-192B. Undergraduate Practicum in Chemistry and Biochemistry. (2 to 4) Tutorial, three hours per week; laboratory, eight hours. Concurrently scheduled with course C292. P/NP or letter grading.

C180. Solid-State Chemistry. (4) Lecture, three hours. Enforced requisites: courses 153A (or 153AH), 171. Role of metal ions in biology. Topics include interactions of metal ions with proteins, nucleic acids, and other biological molecules; mechanisms of metal ion transport and storage; introduction to metalloenzymes; metalloproteins in electron transfer, respiration, and photosynthesis; metals in medicine. Concurrently scheduled with course C279. P/NP or letter grading.

181. 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 biocompatible polymers and polymeric agents in synthesis. Concurrently scheduled with course C281. P/NP or letter grading.

184. Chemical Instrumentation. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 110A, with grades of C– or better. Theory and practice of instrumental techniques of chemical and structural analysis, including atomic absorption spectroscopy, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.

main group metals, metalloids, and transition metals, including olefin complexes and metal carbononyls; applications in catalysis and organic synthesis. S/U or letter grading.

C208. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practices of analytic and inorganic mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C198. 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 bending, annealing, and fire-polishing of glass. Proper cutting of glass and repairing of cracks. S/U grading.

C213B. Physical Chemistry: Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Interaction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibrations in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C213C and requiring project and examination for graduate students. S/U or letter grading.

C215A-C215B. Quantum Chemistry: Methods. (4-5) Lecture, four hours; discussion, one hour. Requisites: courses 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 131 and of analytical mechanics equivalent to Physics 105A. Course C215A or Physics 115B with grade of C– or better is requisite to C215B. Students entering course C215A are normally expected to take course C215B in following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C115A-C115B. S/U or letter grading.


215D. Molecular Spectra, Diffraction, and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C215B, Physics 131. Selected topics from electronic spectra of atoms and molecules; vibrational, rotational, and Raman spectra; magnetic resonance spectra; X-ray, neutron, and electron diffraction; coherence effects. S/U or letter grading.

218. Physical Chemistry Student Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

219A-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.

219E. Dynamics of Molecule-Molecule and Molecule-Surface Reactions. 

219F. Spectroscopy of Isolated Molecules, Complexes, and Clusters. 

219G. Chemistry and Biophysics of Interfaces. 


219L. Modern Methods for Molecular Reactions and Structure. 

219N. Cosmochemistry.

219Q. Ultrafast Studies of Chemical Reaction Dynamics in Condensed Phase. 


219S. Nanoscience. 


219V. Complex Fluids: Composition, Structure, and Rheology. 


219Z. Single-Cell Physiology. 

221A-221Z. Advanced Topics in Physical Chemistry. (2 to 4 each) Lecture, two to four hours. Each course encompasses one recognized specialty in physical chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

C222. Mathematical Methods for Chemistry. (4) Lecture, three hours; discussion, one hour. Corequisites: Mathematics 31A, 31B, 32A, 32B. Review of basic mathematics necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary differential equations, partial differential equations, and special functions. Introduction to linear algebra.

C223A-C223B. Classical and Statistical Thermodynamics. (4-4) Lecture, four hours; discussion, one hour. Requisites: course 110B or 156. Recommended: course 113A. Presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para hydrogen, chemical equilibria, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, surface phenomena, high polymers, gravi- tation. May be concurrently scheduled with courses C123A-C123B. S/U or letter grading.


228. Chemical Physics Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

229. Introduction to Physical Chemistry Research. (2) Lecture, 90 minutes. Designed primarily for enter- ing 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. Requi- sites: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure; structures of globular proteins and RNAs; structures of fibrous proteins, actin, and tropomyosin; principles of electron analysis and Fourier transforms; principles of elec- tron, neutron, and X-ray diffraction; optical and com- puter filtering: three-dimensional reconstruction. S/U or letter grading.

M230D. Structural Molecular Biology Laboratory. (2) (Same as Molecular, Cell, and Developmental Bi- ology M230D.) Laboratory, 10 hours. Corequisite: course C123A. Methods in structural molecular biolo- gy, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimen- sional reconstruction from electron micrographs, and model building. S/U or letter grading.


235A-235Z. Seminars: Research in Organic Chem- istry. (2 each) Seminar/research group meeting, three hours. Advanced study and analysis of current topics in organic chemistry. Discussion of current re- search and literature in research specialty of faculty member teaching course. S/U grading.

235D. Modern Photochemistry and Biooxidants. 

235E. Theoretical and Physical Organic Chemistry. 

235F. Synthetic Methods and Synthesis of Natural Products. 


235L. Fullerene Chemistry and Materials Science. 


235L. Supramolecular and Macromolecular Chemis- try. 

235M. Organic Solid-State Chemistry. 

235N. Target- and Diversity-Oriented Synthesis of Novel Pharmaceuticals and Product-Like Molecules. 

235Q. Polymer Chemistry and Biomaterials. 

235P. Reaction Discovery and Total Synthesis of Complex Molecules. 

235Q. Synthetic Organic Chemistry Research. 

236. Spectroscopic Methods of Organic Chemis- try. (4) Lecture, three hours. Requisite or corequisite: course C234A. Three- and four-nuclear carb- on 13 nuclear magnetic resonance, infrared spec- troscopy, and mass spectrometry; new techniques in NMR, IR, and MS, with emphasis on Fourier trans- forms. NMR S/U or letter grading.

C240. Bionanotechnology. (4) Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chemical, and biological principles in bionanotechnol-
ogy; materials and strategies for top-down and bottom-up fabrication of ordered biologically derived molecules; and detection techniques, and biomimetic materials and applications at nanoscale. Concurrently scheduled with course C140. S/U or letter grading.

241A-241Z. Special Topics in Organic Chemistry. (2 to 4 each) Lecture, two to four hours. Requisite or corequisite: course C243A. Each course encompasses one recognized specialty in organic chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.


243A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanisms of organic reactions. Acid and acid catalysis; linear free energy relationships; isotope effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C140. S/U or letter grading.


C245. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic reactivities. Computational modeling methods, including laboratory experience with computer quantum mechanical calculation. Concurrently scheduled with course C145B. S/U or letter grading.

247. Organic Colloquium. (2) Seminar, two hours. Seminars in organic chemistry and related areas presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

248. Organic Chemistry Student Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

249A. Problems in Advanced Organic Chemistry. (4) Lecture, four hours. Designed primarily for first-year graduate students as preparation for cumulative examinations. Introduction to organic chemistry research. Problems in organic reaction mechanisms, synthesis, structure determination, stereochemistry, spectroscopy, electronic theory, photochemistry, and organometallic chemistry, with emphasis on current literature. May be repeated for credit. S/U grading.

251A-251Z. Advanced Topics in Biochemistry. (2, each) Lecture, two to four hours. Each course encompasses one recognized specialty in biochemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

252. Seminar; Advanced Methods in Computational Biology. (2) (Same as Bioinformatics M252S and Human Genetics M252S.) Seminar, one hour; discussion, one hour. Designed for advanced graduate students. Examination of computational methodology in bioinformatics and computational biology through presentation of current research literature. How to select and apply methods from computational and mathematical disciplines to problems in bioinformatics and computational biology; development of novel methodologies. S/U or letter grading.

256A-256Z. Seminars: Research in Biochemistry. (2 each) Seminar, three hours. Advanced study and analysis of current topics in biochemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.


257. Physical Chemistry of Biological Macromolecules. (4) Lecture, one hour; discussion, one hour; laboratory, four hours. Requisite: course 153A. Theory of hydrodynamic, thermodynamic, and optical techniques used to study structure and function of biological macromolecules. S/U or letter grading.

258. Advanced Topics in Biochemistry and Molecular Biology. (2) Lecture, two hours. Critical analysis of experimental design and methods in biochemistry and molecular biology. In-depth analysis of literature in one or more areas of current research. May be repeated for credit. S/U or letter grading.


259B. Mechanisms in Regulation of Transcription II. (2) Second five weeks. Lecture, four hours. Eukaryotic general transcriptional apparatus; sequence-specific protein factors. Other transcriptional 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 C159B. S/U or letter grading.

260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M260A, Computer Science C260A, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisite: courses 100A or 110A or Mathematics 170A or Statistics 100A, and Computer Science 32 or Program in Computing 10C with grade of C– or better. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM160A. S/U or letter grading.

260B. Algorithms in Bioinformatics and Systems Biology. (4) (Formerly numbered C260B.) (Same as Bioinformatics M260B and Computer Science C260B.) Lecture, three hours; discussion, two hours. Requisites: courses 100A or 110A or Mathematics 170A or Statistics 100A, and Computer Science 32 or Program in Computing 10C with grade of C– or better. Course CM260A is not required. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological questions and preliminary understanding of how to compute statistically significant solutions to biological problems and then solving these problems using algorithmic techniques. Computational techniques include those from computer science. Concurrently scheduled with course CM160B. Letter grading.

260BL. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours. Enforced requisites: course CM260A. Corequisite: course CM260B. Development and application of computational approaches to ask and answer biological questions by implementing variety of bioinformatics and systems biology algorithms. Advantages and disadvantages of different algorithmic methods for studying biological questions and preliminary understanding of how to compute statistically significant solutions to biological problems and then solving these problems using algorithmic techniques. Computational techniques include those from computer science. Concurrently scheduled with course CM160B. Letter grading.

C261A. Plant Biochemistry. (4) Lecture, three hours; discussion, two hours. Requisite: course 153C. 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 C161A. S/U or letter grading.

262. Biochemistry and Molecular Biology of Protein Translocation Systems. (3) Lecture, two hours; discussion, two hours. Requisites: courses 269A through 269D. Protein translocation into nucleus, mitochondrion, peroxisomes, chloroplast, endoplasmic reticulum, and protein recycling in bacteria. S/U or letter grading.

M263. Metabolism and Its Regulation. (4) (Same as Biological Chemistry M263.) Lecture, three hours. Requisites: course 110A, and one course from 153B, 153C, or 156, or Biological Chemistry 251A and 251B. Thermodynamic and kinetic aspects of metabolism; regulatory properties of enzymes; metabolic regulation; consideration of comparative aspects of metabolism in relation to physiological function. S/U or letter grading.
271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encom- passes one recognized specialty in inorganic chemis- try, generally taught by faculty members whose re- search interests embrace that specialty. S/U or letter grading.

272A-272Z. Seminars: Research in Inorganic Chemistry. Three hours. Advanced study and analysis of current topics in inorganic chemistry. Discussion of current research and litera- ture in research specialty of faculty member teaching course. S/U grading.

272A. Chemistry of Materials.
272B. Metallorganic. Inorganic Biometallorganic Chemistry.
272C. Inorganic Spectroscopy.
272D. Bioinorganic Chemistry and Biology of Transi- tion Metals and Oxygen.
272E. Organometallic Synthesis and Chemical Vapor Deposition.
272G. Issues in Chemical Education.
272I. Reticular Chemistry.

C274. Inorganic and Metalorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 172, with grades of C– or better. Survey of inorganic and metalorganic methods; inclusion complexes; substitution, isomerization, and racemiza- tion reactions; stereochemistry; oxidation/reduction, free/radical, polymerization, and photochemical reac- tions of inorganic species. May be concurrently scheduled with course C174. S/U or letter grading.

2725. Inorganic Reaction Mechanisms. (4) Lecture, three hours; requisites: courses 110A, 110B, 113A, and 1172, with grades of C– or better. Survey of inorganic reaction mechanisms; mechanism principles; electronic structure of metal ions; transition-metal coordina- tion chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemiza- tion reactions; stereochemistry; oxidation/reduction, free/radical, polymerization, and photochemical reac- tions of inorganic species. May be concurrently scheduled with course C175. S/U or letter grading.

2726A. Group Theory and Applications to Inor- ganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 113A and 172, with grades of C– or better. Group theoretical meth- ods; molecular orbital theory; ligand-field theory; elec- tronic spectroscopy; vibrational spectroscopy. May be concurrently scheduled with course C176. S/U or letter grading.

2726B. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational and surface science methods, to inorganic compounds and materials. S/U or letter grading.

2727. Crystal Structure Analysis. (4) Lecture, three hours. Theory and practice of modern crystallography, with emphasis on practical experience in structure de- termination. Topics include crystallographic symme- try, scattering theory, data collection, Fourier analysis, heavy atom techniques, direct methods, isomorphous replacement, crystallographic refinement, error analy- sis, and common pitfalls. S/U or letter grading.

2728. Inorganic Chemistry Student Seminar. (2) Se- minar, two hours. Seminars presented by staff, out- side speakers, postdoctoral fellows, and graduate stu- dents. May be repeated for credit. S/U or letter grading.

2729. Biological Inorganic Chemistry. (4) Lecture, three hours. Requisites: courses 153A (or 153AH), 171. Role of metal ions in biology. Topics include in- teractions of metal ions with proteins, nucleic acids, and other biological molecules; mechanisms of metal ion transport and storage; introduction to metalloen- zymes; metalloproteins in electron transfer, respiration, and photosynthesis; metals in medicine. Concurrently scheduled with course C179. S/U or letter grading.


281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 308B, 110A. Synthesis of organic and inorganic macromolecules, their properties, including self-splicing and peptide bond formation. Concurrently scheduled with course C181. S/U or letter grading.

282. Introduction to Inorganic Chemistry Re- search. (2) Lecture, 90 minutes. Discussion of current research in inorganic chemistry, designed primar- ily for entering graduate inorganic chemistry students. S/U grading.


M370A. Integrated Science Instruction Methods. (4) (Same as Earth and Space Sciences M370A and Physics M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower division year (including laboratory) each of chemistry, physics, and biology, and at least two Earth science courses, preferably one with field expe- rience. Classroom management, lesson design, as- sessment, 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. Requisite: course M370A or Earth and Space Sciences M370A or Physics M370A. Application of learning theory to science in- struction and classroom management, including use of technology, collaborative learning, laboratory safe- ty, ethical issues, field experiences, and professional development. S/U or letter grading.

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

400. Safety in Chemical and Biochemical Re- search. (2) Lecture, two hours. Survey of safe labora- tory practices for experimental research in organic, in-organic, and physical chemistry and biochemistry. Topics include laser safety, cryogenic hazards, high- and low-pressure experimentation, gas and carcino- gen handling, chemical spills, fire extinguishing, and chemical disposal. S/U grading.
Addressing local, national, and transnational contexts, the Chicana/Chicano studies curriculum at UCLA explores race, class, gender, and sexuality paradigms as they have shaped the history of the field, as well as new directions in the study of Chicanas/Chicanos and Latinas/Latinos, including (1) border and transnational studies, (2) expressive arts, (3) history, literature, and language of Americas, and (4) labor, law, and policy studies.

Departmental faculty members, situated in one of the most diverse cities in the world, utilize Los Angeles as a laboratory for studying the social transformations taking place in California, the Southwest, and the U.S. The department provides students with the interdisciplinary research tools necessary to advance knowledge in the field, provide academic leadership, and serve community needs with academic resources.

**Undergraduate Study**

**Chicana and Chicano Studies B.A.**

The B.A. program in Chicana and Chicano Studies is committed to the practice of different forms of scholarship and pedagogy and to the promotion of critical thinking about such issues as gender, sexuality, social action, language, race, ethnicity, class, assimilation/acculturation paradigms, and indigenous traditions. The literary and visual arts often function as vehicles for social change and creative empowerment, and so they constitute one focus of the curriculum, that aims to strike a balance among the social sciences, humanities, arts, and the professions. The major prepares students for graduate education in academic and professional fields and for a variety of positions that involve community and social service in the U.S. and abroad.

**Preparation for the Major**

Required: Chicana and Chicano Studies 10A, 10B, Spanish 5 or equivalent.

**Transfer Students**

Transfer applicants to the Chicana and Chicano Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary Chicana/Chicano history and culture course, one interdisciplinary Chicana/Chicano social structure and contemporary conditions course, and five quarter terms of Spanish.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admitr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

Required: A total of 11 upper division courses, including Chicana and Chicano Studies 101; one service learning course from 100SL or M170SL from the approved list available in the department office each term; two related study courses from the approved list of courses outside the department (related study includes courses that provide a comparative perspective to Chicana and Chicano studies and/or a contextualization of Chicana and Chicano communities in the world); one advanced seminar course from 191 or another course by petition to the department chair; and a concentration of four courses in one area listed below and two courses in a second area:

**Border and Transnational Studies: Chicana and Chicano Studies**


**Expressive Arts: Chicana and Chicano Studies**


**History, Culture, and Language of Americas: Chicana and Chicano Studies**


**Labor, Law, and Policy Studies: Chicana and Chicano Studies**

M102, M106, M119, 120, M121, M122, 123, M127, M128, M130, 148, 149, 150, 151, 152, M156A, M156B, 165, 166, M174A, M174B, 177, 178, M179, 191

No more than 8 units of 188, 191, and 199 courses may be applied toward the major; enrollment in the courses must be approved in writing by the department chair. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Capstone Option**

Students wishing to engage in a capstone experience in their senior year must enroll in one capstone seminar (Chicana and Chicano Studies 191). Capstone seminars are taught by departmental core faculty members and engage students in weekly reading, writing, discussion, analysis, and peer review of capstone projects that culminate in a public oral presentation of each student’s work. A capstone project is an inquiry-based research paper, an expanded paper from a previous upper division course in the selected concentration, or a creative project developed in close consultation with a faculty mentor.

Students wishing to enroll in capstone seminars must have completed all lower division preparation courses and at least three courses in their primary concentration. It is expected that the resulting works demonstrate strong research and analytical skills, competence in interdisciplinary methodology, a mastery of basic knowledge in the field, including a foundation of race, class, gender, and sexuality epistemologies, and a broad understanding of the area of concentration. See the student advisor for further information.

**Honors Program**

The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a year-
long research or creative project with the guidance and supervision of a faculty member. The program is open to all juniors and seniors who have (1) a 3.5 grade-point average in the major, (2) a cumulative GPA of 3.0 or better, and (3) completed or in most total units, including Chicana and Chicano Studies 10A, 10B, 101, and one course from 89, 89HC, 189, or 189HC. The application for admission must be submitted in Spring Quarter of the year prior to admission to the program, with the advice and consent of a faculty sponsor. The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana and Chicano Studies 198A, 198B, and 198C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Students who are currently undertaking the optional multidisciplinary minor thesis and who are eligible for the honors program may opt to switch to the honors program (providing it does not delay their progress toward the degree) with the approval of the department.

Optional Multidisciplinary Senior Thesis

Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.

Chicana and Chicano Studies Minor

The Chicana and Chicano Studies minor complements study in another traditional field. Students participating in the minor are required to complete both a departmental major in another discipline and the Chicana and Chicano Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student adviser in 7351 Bunche Hall.

Required Lower Division Courses (10 units): Chicana and Chicano Studies 10A, 10B.

Required Upper Division Courses (20 units minimum): Chicana and Chicano Studies 101 and four elective courses (20 units minimum) selected from the approved list (available in the department office each term).

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

No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

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

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/publications/gpgmrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The César E. Chávez Department of Chicana and Chicano Studies offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Chicana and Chicano Studies.

Chicana and Chicano Studies

Lower Division Courses

10A. Introduction to Chicana/Chicano Studies: History and Culture. (5) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic-cultural paradigms, including indigenousness, gender, sexuality, language, and borders, that help shape Chicana/Chicana identities. Emphasis on critical reading and writing skills. Letter grading.

10B. Introduction to Chicana/Chicano Studies: Social Structure and Contemporary Conditions. (5) Lecture, three hours; discussion, one hour. Multi-disciplinary examination of representation, ideologies, and material conditions of Chicanas/Chicanos, including colonialism, race, labor, immigration, poverty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading.

88. Sophomore Seminars: Chicana and Chicano Studies. (2) Seminar, two hours. Limited to lower division students. Readings and discussions designed to introduce students to current research in Chicana/Chicana studies. Culminating project may be required. May not be applied toward departmental major or minor requirements. May be repeated for credit with topic change. P/NP or letter grading.

97. Variable Topics in Chicana and Chicano Studies. (2) Seminar, two hours. Requisite: course 10A or 10B. Current topics and particular research methods in Chicana and Chicano studies through readings and other assignments. May be repeated for credit. P/NP or letter grading.

98. Professional Schools Seminars. (2) Seminar, two hours. Limited to 20 students. Introduction to issues of professional (nonacademic) settings and careers through readings and other assignments. P/NP or letter grading.

Upper Division Courses

100SL. Barrio Service Learning. (4) Seminar, two hours; field placement, eight hours. Limited to juniors/seniors. Service learning placement in community-based organization, labor union, or service-oriented nonprofit organization. Study of role that these organizations play in improvement and change of Chicana/Chicana communities. Students meet on regular basis with professor and provide periodic reports of their experience. Individual contract with supervising faculty member required. Letter grading.


M102. Mexican Americans and Schools. (4) Same as Education M102.) Seminar, four hours. Theoretical and empirical overview of Chicana/Chicano educational issues in U.S., with special emphasis on disentangling effects of race, gender, class, and immigrant status on Chicana/Chicana educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicana educational experience. P/NP or letter grading.


M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (5) Same as Theater M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions that led to emergence of Chicano theater. Letter grading.


104. Comedy and Culture: Your Humorous Life. (4) Lecture, four hours. How to mine unique humorous life adventures from students’ cultural identities and turn those distinct experiences into humorous literature. Students acquire skills to read their stories out loud, with emphasis on comedy in their pieces through art of storytelling and performance. P/NP or letter grading.

M105A. Early Chicana/Chicano Literature, 1400 to 1920. (5) Same as English M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from poetry of Triple Alliance and Aztec Empire through end of Mexican Revolution (1920), including oral and written forms (poetry, corridos, testimonios, folklore, novels, short stories, and drama) by writers such as Nezahualcóyotl (Hungry Coyote), Cabaza de Vaca, Lorenzo de Zavala, María Amparo Ruiz de Burton, Eusebio Chacón, Daniel Venegas, and Lorenzo Villegas de Magón. P/NP or letter grading.

M105B. Chicana/Chicano Literature from Mexican Revolution to el Movimiento, 1920 to 1970s. (5) Not (same as course M105B prior to Fall Quarter 2011.) (Same as English M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from 1920s through Great Depression and World War II, ending with Chicana/Chicana civil rights movement. Oral and written narratives by writers including Conrado Espinoza, Jovita González, Cleofás Jaramillo, Angelico Chávez, Mario Suárez, Oscar Acosta, and Evangelina Vigil. P/NP or letter grading.

M105C. Chicana/Chicano Literature since el Movimiento, 1970s to Present. (5) Formerly numbered M105B.) (Same as English M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central and South American migration have shaped 21st-century Chicana/o, written, and graphic fiction, poetry, and drama by writers including John Rechy, Gloria Anzaldúa, Los Bros Hernández, Ana Castillo, and DAGoberto Gilb guide exploration of queer Chicana/o identity, immigration debates, and emerging Latina/Latino majorities. P/NP or letter grading.
M105D. Introduction to Latina/Latino Literature. (S) (Same as English M105D.) Lecture, four hours; discussion on four topics. Required prerequisite: English Composition 3 or 3H. Study of various topics related to Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M105E. Studies in Chicana/Chicano and/or Latina/Latina Literatu... (S) (Same as English M105E.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M105SL. Seminar: Chicana/Chicano and/or Latina/Latina Literature — Service Learning. (S) (Same as English M105SL.) Seminar, three or four hours; field placement, three or four hours. English Composition 3 or 3H. Study of various topics related to Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M106. Health in Chicano/Latino Population. (4) (Same as English M106.) Lecture, four hours; discussion on four topics. Required prerequisite: English Composition 3 or 3H. Study of various topics related to Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M107. Chicana/Femenism. (4) (Same as Gender Studies M107A.) Lecture, four hours. Discussion of Chicana and Chicano feminism. P/NP or letter grading.

M108A. Music of Latin America: Mexico, Central America, and Caribbean Isles. (S) (Same as Ethnomusicology M108A.) Lecture, four hours; discussion, one hour. Survey of traditional and contemporary musical culture. P/NP or letter grading.


M110. Chicana/Chicano Feminism. (4) (Same as Gender Studies M110.) Lecture, four hours. Discussion of Chicana and Chicano feminism. P/NP or letter grading.

M111. Chicana/Femenism and Latina/Latina Intellec... (4) (Same as Art M111.) Lecture, five hours. General view of philosophical, cultural, and social thought as well as intellectual trends in Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M114. Chicana in Film/Video. (5) (Same as Film and Television M114.) Lecture, four hours; discussion, one hour. General view of philosophical, cultural, and social thought as well as intellectual trends in Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Same as Ethnomusicology M115.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M116. Chicana/Latina Music in U.S. (5) (Same as Ethnomusicology M116.) Lecture, four hours; discussion, one hour. Historical and analytical examination of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M117. Chicana/Chicano Images in Mexican Film and Literature. (4) (Same as Ethnomusicology M117.) Lecture, four hours; discussion, one hour. Historical and analytical examination of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M118. Student-Initiated Research and Outreach Issues in Higher Education. (4) (Same as Ethnomusicology M118.) Lecture, four hours; discussion, one hour. Historical and analytical examination of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M119. Chicano/Latino Community Formation: Critical Perspectives and Oral Histories. (4) (Same as Ethnomusicology M119.) Lecture, four hours; discussion, one hour. Historical and analytical examination of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M120. Immigration and Chicano Community. (4) (Same as Gender Studies M120.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M121. Issues in Latina/Latino Poverty. (4) (Same as Labor and Workplace Studies M121 and Urban Planning M121.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M122 and Urban Planning M121.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M123. Applied Research Methods in Latino Communities. (4) (Same as Labor and Workplace Studies M123.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M124. Latina/Latino Immigration History and Politics. (4) (Same as Labor and Workplace Studies M124.) Lecture, four hours. Overview of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M125. U.S./Mexico Relations. (4) (Same as Labor and Workplace Studies M125.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M126. Politics of Crisis: Migration, Identity, and Religion. (4) (Same as Labor and Workplace Studies M126.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M127. Farmworker Movements, Social Justice, and AFL-CIO. (4) (Same as Labor and Workplace Studies M127.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M128. Race, Gender, and U.S. Labor. (4) (Same as Labor and Workplace Studies M128.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M129. Field Research Methods in Labor and Workpl... (4) (Same as Labor and Workplace Studies M129.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.

M130. Worker Center Movement: Next Wave Organiz... (4) (Same as Labor and Workplace Studies M130.) Lecture, four hours. Discussion of Chicana/Latina/Latino and Chicano experience. Like its U.S. counterpart, Mexican cinema has been stereotyped as that of undocumented workers. P/NP or letter grading.
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131. Barrio Popular Culture. (4) Lecture, three hours. Construction of model by which to organize study of popular culture focusing on barrio as metaphor for community. Examination of beliefs, myths, and values of Chicanas/Chicanos and representations in icons, heroes, legends, stereotypes, and popular art forms through literature, film, video, music, mass media, and oral history. Letter grading.

132. 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 U.S. Special attention to border consciousness as site of conflict and resistance. Letter grading.


M135. Bilingual Writing Workshop. (4) Same as Gender Studies M135C. Seminar, four hours. Writing sample required on first day of class; access to course Web page mandatory; need not be bilingual. 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 themes are politics and aesthetics. Peer critique of weekly writing assignments. Letter grading.

M139. Topics in Chicana/Chicano and/or Latin/ Latino Literatures. (4) Same as English M151B. Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicano and/or Latin/ Latino literature. Topics may include literature and culture; Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism, literary New Mexico; literature. May be repeated for credit with topic or instructor change. P/NP or letter grading.

141. Chicana and Latin American Women's Narrative. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Analysis of historical contexts, and discussion of narrative literary production of U.S. Chicana writers and their Latin American counterparts in English and Spanish, with particular focus on how each group deals with gender, ethnic, and class issues. Letter grading.

142. Mesoamerican Literatures. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Survey of premises of Mesoamerican literatures, including myths, lyrics, poetry, religious celebrations, rituals, and drama, specifically of Aztec and Mayan peoples prior to European contact. Letter grading.

143. mestizaje: History of Diverse Racial/Cultural Roots of Mexico. (4) Lecture, four hours. Historical examination of diverse racial and cultural roots of Chicanas and Chicanos. Utilizing theoretical frameworks of mestizaje, Aztlán, indígenismo, La Raza Cósmica, and la tercera raza, examination of some important groups who have contributed to formation of Mexican national culture. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua (Aztecs), Mixtecs, Spaniards, and African slave population. Analysis of Asian immigration to Mexico and California during national period, specifically examination of migration and adaptation experiences of Chinese, Japanese, and Punjabi-Indian immigrants. P/NP or letter grading.

M144. Women's Movement in Latin America. (4) Same as Gender Studies M144 and Labor and Workplace Studies M144. Lecture, four hours. Course offers history and feminism in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of forms of feminism and women's consciousness that have emerged out of indigenous rights movements, environmental struggles, women's rights, anti-establishment-based communities, peasant and rural organizing, and new social movements that are concerned with race, sexuality, feminism, and human rights. Through comparison of movements, by diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and current trends that give rise to women's resistance, as well as major debates in field of study. P/NP or letter grading.

M145A-M145B. Introduction to Chicano Literature. (4-4) Same as Spanish M145A-M145B. Lecture, three hours. Introduction to texts representative of Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view characteristic of work written by Chicanos during 20th century. Most required reading is in Spanish. Bilingual and English works are included and discussed. Reading and analysis of narrative form of a number of scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading. M145A. Literature to 1960; M145B. Literature after 1960.

M146. Chicano Narrative. (4) Same as Spanish M146. Lecture, three hours. Introduction to major narrative genres in Chicana/Chicano 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. P/NP or letter grading.

M147. Transnational Women's Organizing in Americas. (4) Same as Gender Studies M147C. Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globalization and essential to economic and political struggles encompassed in transnational power relations. Students will analyze sexism of race and gender influence global economic policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national borders with lightning frequency, discussion of process of accelerated globalization has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growth of global militarization. Problems and issues created by globalization and cultural, social, and political responses envisioned by transnational organizing. P/ NP or letter grading.


149. Gendered Politics and Chicana/Latina Political Participation. (4) Lecture, four hours. Examination of Chicanas and Latinas as participants, organizers, and leaders in communities, workplaces, labor unions, and government. Survey of Chicana/Latinas in politics and as policymakers in appointed and elected offices. Analysis of policies and political behavior. Letter grading.

150. Affirmative Action: History and Politics. (4) 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/Latinas, Latinos/Latin, and other communities. Specific analysis of university admissions, hiring, contracting practices, and state initiatives. Letter grading.


152. Disposable People: U.S. Deportation and Repatriation Campaigns. (4) Seminar, four hours. Examination of U.S. deportation campaigns targeted at Mexican and other Latin American workers, residents, and immigrant citizens. Address large-scale highly organized deportation and repatriation efforts after violent conquest of Mexican territories in 19th century, during economic and social panic of the Great Depression in 1930s and Operation Wetback in 1950s, and through turn of 21st century, examination of criminalization of Mexican and Latino immigrants, police and military tactics of federal government, administrative as well as courts and institutions that have been created to facilitate deportation. Provides grounded knowledge of U.S. deportation history to contextualize broader national debate about immigration reform that is occurring today. P/ NP or letter grading.

153. Central Americans in U.S. (4) Lecture, four hours. Interdisciplinary survey of social, historical, political, economic, educational, and cultural experiences of Central American immigrants and their children in U.S. Introduction to several contemporary experiences and issues in U.S. Central American communities. With focus mostly on Guatemalan, Honduran, and Salvadoran immigrants, exploration of social structures that constrain individuals, as well as strategies and behaviors immigrants and their communities have taken to establish their presence and incorporate into U.S. society. How Central American identity has been constructed and how this identity intersects with race, gender, and legal status. P/NP or letter grading.


M155. Latinos in U.S. (4) Same as Sociology 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 larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

M156A. Immigrant Rights, Labor, and Higher Education. (4) Same as Asian American Studies M166A and Labor and Workplace Studies M166B. Seminar, three hours. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights, write poetry and spoken word about immigration roots, work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

M157A. Research on Immigration Rights, Labor, and Higher Education. (4) Same as American Studies M166 and Labor and Workplace Studies M166B. Seminar, two hours. Requisite: course M156A. Organizing research with students in course M156A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M158. Chicano Movement and Its Political Legacies. (4) Lecture, four hours. Collective examination of Chicano Movement of 1960s and 1970s and analysis of its political legacies. Grounded in historiographic-
mobilization of diverse sectors of inquiry and social movement theory, investigation of types and social functions of Chicano speech (American Society. (4)

historical events of significance occurring both in U.S. and Mexico. (3) Historical survey course on historical development of Mexican (Chicano) community and people of Mexican descent (Indio-Mestizo-Mulato) north of Rio through 17th, 19th, and 20th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical forces affecting community. Central focus to offer Freirian alternative to theoretical, methodological, practical, and policy questions about schooling of Chicanas/Chicanos in U.S. P/NP or letter grading.

Lecture, three hours. Required study of multimodal (visual, graphic, spoken, audio, and text) images disseminated by television news programs to learn how nation comes to their understanding of Latinos. Development of critical acuity through metacognition training and analysis of actual television news stories. Letter grading.

Lecture, four hours. Examination of systemic (mis)representations of Latinas by 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. Letter grading.

Lecture, four hours. Requisites: courses M174A, M174B. Limited to juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer-mediated programs to be sustained by future UCLA students. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application of critical thinking, review of literature from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and possibilities for conflict resolution. Requisites: courses M174A, M174B. Limited to juniors/seniors.

Lecture, four hours. Introduction to Chicana and Chicano artists. Examination of Chicana and Chicano artists who have developed unique experience and identity as artists and Chicanas. Letter grading.

Lecture, four hours. Analysis of dynamics of Chicana/Chicano transnational community formation in comparative global perspective, explored both as historical result of and key future actor in local manifestations of transnationalization in California. Examination of Chicana/Chicano experience in California as both highly linked node and localized microcosm of dynamics of globalization that is both affected by and affects European and Americas scenarios of globalization. Designed to help students develop critical political economy analysis of interplay between globalization and localized transnational dynamics that together are giving meaning to and constructing new social identities and strategies for struggle throughout world. P/NP or letter grading.

Lecture, three hours. Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of social policy issues affecting them. Survey of social, economic, and political circumstances affecting ability of Latinos to access public benefits and human services. Letter grading.


Lecture, four hours. Historical survey of language policies and language groups in U.S. in context to understanding social, legal, and political constraints on bilingualism.

182. Understanding Whiteness in American History and Culture. (4) (Same as History 151C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of "white" identity and explore its significance to historical construction of race class in American history. Letter grading.

183. History of Los Angeles. (4) (Same as History 155.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to the present. Emphasis on changing physical environment, various interpretations of city, and Los Angeles' place among American urban centers. Letter grading.

184. History of U.S./Mexican Borderlands. (4) Lecture, four hours. Survey of historic and geographic diversity of Chicana/Chicano identity and culture, with emphasis on regional communities of California, New Mexico, and Texas in Mexican/Borderland context as situated within U.S. national context. Letter grading.

185. Whose Monument Where: Course on Public Art. (4) (Same as Art 185 and World Arts and Cultures 125B.) Lecture, four hours. Recommended corequisite: course 186A, 186B, or 186C. Examination of public monuments in U.S. as basis for cultural insight and critique of American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is "public," what is "public space" at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.

186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Art 186A and World Arts and Cultures 125A.) Studio/direction, four hours. Corequisite: course 186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Consideration of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

186B. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Art 186B and World Arts and Cultures 125B.) Studio/direction, four hours. Corequisite: course 186AL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Consideration of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Art 186C and World Arts and Cultures 125C.) Studio/direction, six hours. Requisites: courses 186B, 186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Consideration of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.


188. Special Courses in Chicana and Chicano Studies. (4) Seminar, three hours. Some sections may require prior courses and departmental sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

190. Research Colloquia in Chicana and Chicano Studies. (4) Seminar, two hours. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to present reports, discuss research methodologies, and share feedback on each other's work. Culminates in public "summit" of Chicana/Chicano student research at which students expected to present published position papers on their research. May be repeated for credit. P/NP or letter grading.

191. Variable Topics Research Seminars: Chicana and Chicano Studies. (4) Seminar, three hours. Limited to juniors/seniors. Research seminar organized around readings and engaged discussion of critical topics in field of interest. Exploration of issue, its theoretical implications for field, and practical implications for communities. Final research project required. May be repeated for credit. P/NP or letter grading.

192. Undergraduate Practicum in Chicana and Chicano Studies. (4) Seminar, one hour. Requisite: course 10A or 10B. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students who assist in preparation of materials and/or development of innovative programs or courses of study under guidance of faculty members in small group settings or one-on-one setting. Not to be applied toward departmental major or minor requirements. May be repeated for credit. P/NP or letter grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (1) Seminar, one hour. Limited to undergraduate Colloquia Series during Spring. Reading of journal articles associated with speaker topics to enliven postconversation discussions. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

194. Research Group Seminars: Chicana and Chicano Studies. (2) Seminar, one hour. Designed for undergraduate students who are part of research group. Discussion of current literature in field or of research of faculty members or students. Use of specific research method on selected topic. May be repeated for credit with topic change. P/NP grading.

195. Community Internship in Chicana and Chicano Studies. (4) Tutorial, two hours; field placement, eight hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet weekly with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Research Apprenticeship in Chicana and Chicano Studies. (2 to 4) Tutorial, three hours per week per unit. Requisite: course 10A or 10B. Limited to juniors/seniors. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. Participation in all aspects of research project, including library research, reading materials, and compilation of data, with scheduled meetings throughout term with faculty mentor for discussion of project. May not be applied toward departmental major or minor requirements. May be repeated under different contract; consult department. Individual contract required. P/NP or letter grading.

197. Individual Studies in Chicana and Chicano Studies. (2 to 4) Tutorial, four hours. Requisites: courses 10A, 10B. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty mentor and student. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for maximum of 12 units. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in Chicana and Chicano Studies. (2 each) Tutorial, one hour. Limited to junior/senior honors program students. May be repeated for credit. Individual contract required. Letter grading. 198A. Thesis Conceptualization. Requisites: courses 10A, 10B, 101, and 89 or 189. Conceptualization and formulation of project in Fall Quarter to specification and satisfaction of theses committee. Preliminary data collection on topic and production of proposal for thesis required. 198B. Annotated Bibliography/Literature Review. Requisite: course 198A. Development of research skills in Fall Quarter to produce extensive annotated bibliography or literature review on thesis topic. Weekly meetings with faculty mentor to discuss research and develop outline, argue thesis, and develop literature review. Revision. Requisite: course 198B. Writing, revision, and completion of departmental honors thesis in Spring Quarter to specification and satisfaction of thesis committee. Public presentation and defense of thesis required.

199. Directed Research or Senior Project in Chicana and Chicano Studies. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Latina/Latino Los Angeles: Survey of Interdisciplinary Methods. (4) Seminar, three hours. Introduction to multiple analytical approaches for studying Los Angeles as global city where nations, languages, cultures, and histories intersect and create new third space. As such, Los Angeles provides critical site of social, political, aesthetic, cultural, and professional inquiry in field. Topics include public art, popular culture, urban history, urban life, and migration, citizenship, and politics. Research methods include semiotics, critical discourse analysis, spatial analysis, policy analysis, and sociolinguistics. Focus on different Los Angeles communities in discrete and
cross-cultural dimensions, including identity formation across generations, homelands, and diverse notions of Chicana and Chicano studies. Exploration of changes that have taken place around four key theoretical areas: coloniality, nationhood, inequality studies, and genders and sexualities. S/U or letter grading.

201. New Directions in Chicana and Chicano Studies. (4) Seminar, four hours. Limited to graduate students. Examination of several approaches and important theoretical frameworks in field of Chicana and Chicano studies. Exploration of changes that have taken place around four key theoretical areas: coloniality, nationhood, inequality studies, and genders and sexualities. S/U or letter grading.


232. Aesthetics of Place in Chicana/Chicano Expressions, Culture, and Literature. (3) Seminar, three hours. Exploration of several place-based aesthetic traditions, including indigenous, Santeria, diasporic, and Aztlán aesthetics, in Chicana/Chicano visual art, film, performance, or music. Special focus on place as site of identity, history/memories, and creative production. S/U or letter grading.

253. Tenth Muses of Chicana Theory. (4) Seminar, three hours. Chicana feminist theory in its multiple and historical manifestations, beginning in 17th century with early proto-feminist work of Sor Juana Inés de la Cruz, Mexican nun/scholar/poet known for her religiosity and feminism of Americas. Exploration of Sor Juana’s feminist legacy in 20th-century Chicana lesbian and Chicana feminist theorists and scholars, such as Gloria Anzaldúa, Cherríe Moraga, Emma Pérez, Chela Sandoval, Norma Alarcón, and Alicia Arríoz. Discussion of foundational theoretical concepts such as Anzaldúa’s foundational concepts of mundane zurdos, nepantla, mestiza consciousness, and conocimiento; Pérez’s sito y lengua and decolonial imaginaries; Sandoval’s methodology of oppressed, differential consciousness, and hermeneutics of love; and Arríoz’s postcolonial queer mestiza-je. Historical and cultural changes in decolonization of one revered cultural icon, la Virgen de Guadalupe. S/U or letter grading.

254. Los Angeles: History, Space, and Culture. (4) Seminar, three hours. Exploration of significance of Los Angeles as cultural space, historical identity and transformation of Mexican American culture in Los Angeles area internships, state internships, and Latin American cultural workers, as well as among diverse populations and changing experiences their works refer to. S/U or letter grading.

255. Mass Media Research Methods. (4) Seminar, three hours. Limited to graduate students. Survey of range of qualitative and quantitative communication methods and findings regarding Chicana/Chicano and Latina/Latino topics for all media types in both English and Spanish. Critical evaluation of research findings across broad narrative field and design of complex research problems. S/U or letter grading.

279. Globalization and Transnationalism. (4) Seminar, three hours. Interdisciplinary seminar that integrates political-economic, historical-sociological, and anthropological/cultural perspectives to help students develop critical political-economic analysis of global processes of globalization (of flows of people, material goods, information, and political-cultural influences) and localized transnational dynamics that together are giving meaning and constructing new social identities and strategies for struggle throughout world. S/U or letter grading.

280. Urban Social Inequality. (4) Seminar, three hours. Examination of several key social and economic inequalities in U.S. Survey of three key contemporary issues of inequality primarily from sociology and urban planning/studies: income distribution (poverty), workplace and employment (labor), and neighborhoods (space/geography). Through wide range of methods, approaches, and theoretical frameworks examined, exposure to key research on inequality. S/U or letter grading.

281. Central American Migration and Integration. (4) Seminar, three hours. Through empirical research cycle and informed with relevant theoretical frameworks, students develop research questions based on migration and integration experiences of Central American immigrants in greater Los Angeles area. Students conduct qualitative research, analyze original data, and write final papers that contextualize findings within existing social scientific literature. S/U or letter grading.

282. Chicana/Chicano Legal History. (4) Seminar, three hours. Legal history of Chicana/Chicanos in U.S. from mid-19th century to present, with emphasis on critical race theory. Examination of landmark legislation and key appellate decisions that have impacted Chicano/Latino communities. Topics include critical race theory, Treaty of Guadalupe-Hidalgo, legal construction of Mexican American racial identity, historic educational segregation, contemporary educational issues, jury rights, Chicano movement, and undocumented immigration. S/U or letter grading.

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

495. Learner-Centered Teaching in Chicana/Chicano Studies. (4) Seminar, four hours. Designed for graduate students and required of all new department teaching apprentices. Interactive forum for discussing learner-centered teaching in Chicana/Chicano studies. Exploration of diverse classroom strategies and curricular frameworks specific to interdisciplinary field. Topics include preparing for discussion sections, promoting discussion among students, using class websites, office hours, grading, and campus resources. May be repeated once for credit. S/U or letter grading.


CIVIC ENGAGEMENT

Interdisciplinary Minor
College of Letters and Science

UCLA
A265 Murphy Hall
Box 951571
Los Angeles, CA 90095-1571
(310) 825-7867
e-mail: civicengagement@college.ucla.edu
http://www.communitylearning.ucla.edu/minors.htm

Scope and Objectives

The Civic Engagement minor is designed to provide students with a core analytical, experimental, and theoretical framework for understanding issues of community building, governance, and the use of civic resources. It examines the connections between individual success and societal structures, while exploring traditions of service and the history of civic movements. The minor can be paired with any major as an applied and active way of putting disciplinary tools to use and is intended for highly motivated students of any ideological perspective who are committed to education among a broader community of learners.

Students complete a core curriculum, elective courses, an internship, and a capstone project involving research on a public policy issue. Three internship programs are available: local Los Angeles area internships, state internships through the University of California Center in Sacramento (UCCS) program, and national internships through the Center for American Politics and Public Policy (CAPPPP) program in Washington, DC.

Undergraduate Study

Civic Engagement Minor

The Civic Engagement minor integrates local, state, and national internship with an academic context that enriches the valuable learning gained through meaningful work.
To enter the minor, students must (1) have an overall grade-point average of 2.7 or better, (2) submit a completed application endorsed by a faculty sponsor, and (3) submit a written statement describing how civic engagement relates to their academic interests or career goals. Applications are available in A265 Murphy Hall.

Students who complete the minor with a grade-point average of at least 3.5 in their minor coursework, an overall GPA of 3.5, and Civic Engagement 198 for their capstone experience qualify for graduation with College Honors.

**Required Lower Division Course (4 or 5 units):**
One course, with a grade of C or better, from English 4WS, General Education Clusters M24CW with a service learning component approved by petition (if selected, General Education Clusters M24A and M24B must also be taken), General Education Clusters B08 (if selected, General Education Clusters 80A and 80CW must also be taken), History 2B, Political Science 10, Public Policy 10A, or Sociology 1. Students who enroll in a lower division course without a service learning component are required to present evidence of regular participation in a substantive service project or (2) select a service learning course as their upper division elective.

**Required Upper Division Courses (9 or 10 units):**

**Required Upper Division Internship Courses (12 to 14 units):** Students must select from either local, state, or national internship locations as follows:

- **Local Los Angeles area internships** span three consecutive terms at the same internship location. Students enroll in three consecutive terms of Civic Engagement 195CE. Placements are selected in consultation with the Center for Community Learning minor coordinator and are based on both student interest and faculty recommendations.

- **State internships** span one term through participation in the University of California Center Sacramento (UCCS) program during Fall, Winter, Spring, or Summer Quarter. Students must enroll in a minimum of 12 units of upper division courses to satisfy the internship requirement. Applications for the UCCS program are available at http://uccs.ucdavis.edu.

- **National internships** span one term through participation in the Center for American Politics and Public Policy (CAPP) program in Washington, DC. In the Fall or Spring Quarter program, students enroll in History/Political Science/Sociology M191DC and M195DC; in the Winter Quarter program, students enroll in History/Political Science/Sociology M194DC and M195DC plus one 4-unit elective course. Students must enroll in a minimum of 12 units of upper division courses to satisfy the internship requirement. Applications for the CAPP program are available at http://capp.ucd.edu.

**Required Upper Division Capstone Courses (6 units):** Civic Engagement M194 with a grade of B or better, and 198 or 199. Prior to enrolling in course 198 or 199, students must complete Civic Engagement M194 and all other requirements for the minor, with the exception of the three-term local internship which may be completed concurrently with the capstone course.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students complete the capstone experience under the guidance of a faculty sponsor and enroll in either Civic Engagement 198 or 199 in the final term of the minor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee for the minor.

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

No more than one course may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Civic Engagement Lower Division Course**

10. Introduction to Engaged Scholarship. (2) Lecture, one hour; discussion, two hours; service learning projects, two hours. Limited to first-year students in College Summer Institute. Introduces students to campus resources by organizing meaningful research with faculty members and staff to expose students to history and philosophy of university/community partnerships in general, as well as specific opportunities for active engagement by undergraduate students at UCLA. General overview of civic engagement to provide students with summary of future opportunities for coursework with off-campus partners and list of faculty researchers who work in one of six specific topical areas. Offered in summer only. P/NP grading.

18. Bruin Leaders: Model for Social Change. (1) Lecture, two hours; fieldwork, one hour. Introduction to leadership development and civic engagement through community service. Based on nonhierarchical mode of leadership developed by UCLA Graduate School of Education and Information Studies. Topics include diversity issues, organizational skills and team-building development, and personal growth and community service goals. Participation in first-week orientation session is required. **Classes for topics to be offered in specific term. May not be repeated for credit. P/NP grading.**

95CE. Introduction to Community-Based Internships. (2) Formerly numbered 95L. Tutorial, one hour; fieldwork, six hours. Introduction to community-based work for freshman/sophomore students who have not completed 90 units. Platform for preplanned, organized, structured, and supervised off-campus experiences with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations that meet criteria for undergraduate internships as established by Center for Community Learning. May be repeated once for credit. P/NP grading.

**Upper Division Courses**

100SL. Perspectives on Civic Engagement. (4) Formerly numbered 100.) Seminar, three hours. Introduction to civic engagement research and practice opportunities for students who have completed Civic Engagement minor, as well as those from all majors who are interested in theories and concepts of civic engagement within undergraduate education. Letter grading.

102. Civic Identity Development through Alternative Spring Break. (2) Seminar, two hours. Limited to students who have participated in USAC Community Service Commission Alternative Spring Break immediately prior to Spring Quarter. Study of how individuals develop civic identity. Discussion of role of higher education initiatives in civic identity formation, with specific attention to reflection on Alternative Spring Break experiences. P/NP grading.

105SL. Client-Based Program Evaluation. (5) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Service learning course for undergraduate students and community partners in which students learn theory and practice of program evaluation. Evaluation of public health program in Los Angeles by research teams. Letter grading.

M115. Citizenship and Public Service. (4) Same as Political Science M115C.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: Political Science 10. Designed for juniors/seniors. Study of ways in which political thinkers have conceived of citizenship and public service, how these ideas have changed over time, and frameworks for thinking about citizenship in era of markets and globalization. P/NP or letter grading.


133SL. Community-Based Research: Theory and Practice. (5) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Service learning course in research methods. Community-based research, in collaboration with community organizations, on theme of client rights: activism and advocacy. Offered in summer only. Letter grading.

163SL. Civic Engagement and Public Use of Knowledge. (5) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Review and analysis of research literature and national discussion of role of citizens in modern-day democracy, including discussion of civic education in higher education and implications for lives of students. Letter grading.

180. Access to Justice: Hope and Reality. (4) Seminar, three hours. Limited to UCLA students who are members of JusticeCorps program through AmeriCorps. JusticeCorps was established as innovative approach to solving one pressing issue faced by courts around country today: providing an access to justice. Examination of promise of justice system in America to provide meaningful access to courts for all who seek it. What premises underlie structure of U.S. legal system? Exploration of sociopolitical context for current legal system, including origins and current status of legal services and self-help movements, including role of JusticeCorps. Were these strategies designed to make promise of providing an access to justice or have they inadvertently, or intentionally, resulted in two-tiered legal system — one for those with means and another for those without? P/NP or letter grading.
CIVIL AND ENVIRONMENTAL ENGINEERING

Civil and Environmental Engineering / 227

M194. Capstone Research Seminar. (2) Same as Disability Studies M194.) Seminar, two hours. Enforced requisite: course 195CE. Required of students pursuing Civic Engagement minor. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationships between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

195. Community or Corporate Internships in Civic Engagement. (4) Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors in Civic Engagement minor. Internship in supervised setting in corporate, governmental, or nonprofit setting, using knowledge base of civic engagement. Students submit weekly writing assignments and final paper that examine civic issues related to meaningful work at internship site. Students expected to learn ways in which individuals and groups can organize to solve problems, analyze issues, or bring about change in democratic society. Must be repeated for three consecutive terms to fulfill minor requirements. Individual contract with supervising faculty member required. Letter grading.

195CE. Community and Corporate Internships in Civic Engagement. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.

198. Honors Research in Civic Engagement. (4) Tutorial, one hour. Required capstone course to Civic Engagement minor for students pursuing College Honors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Civic Engagement. (4) Tutorial, one hour. Required capstone course to Civic Engagement minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. Letter grading.

Jiann-Wen Ju, Ph.D.
Steven A. Margulis, Ph.D.
Michael K. Stenstrom, Ph.D.
Jonathan P. Stewart, Ph.D.
Keith D. Stolzenbach, Ph.D.
Mladen Vucetic, Ph.D.
John W. Wallace, Ph.D.
William W-G. Yeh, Ph.D. (Richard G. Newman AECEM Endowed Professor of Civil Engineering)

Professors Emeriti

Stanley B. Dong, Ph.D.
Lewis P. Felton, Ph.D.
Michael E. Fournier, Ph.D.
Gary C. Hart, Ph.D.
Poul V. Lade, Ph.D.
Chung Yen Liu, Ph.D.
Richard L. Perrine, Ph.D.
Moshe F. Rubinstein, Ph.D.
Lucien A. Schmit, Jr., M.S.
Lawrence G. Selna, Ph.D.

Associate Professors

Scott J. Brandenberg, Ph.D.
Terri S. Hogue, Ph.D.
Jennifer A. Jay, Ph.D.
Ertugrul Tacioglu, Ph.D.

Assistant Professors

Shaily Mahendra, Ph.D.
Gaurav Sant, Ph.D. (Edward K. and Linda L. Rice Endowed Professor of Materials Science)
Jian Zhang, Ph.D.

Senior Lecturer

Christopher Tu, Ph.D.

Adjunct Professors

Thomas Sabet, Ph.D.
Ne-Zheng Sun, Ph.D.

Adjunct Associate Professors

Donald R. Kendall, Ph.D.
Issam Najm, Ph.D.
Daniel E. Pradel, Ph.D.

Scope and Objectives

The civil and environmental engineering programs at UCLA include structural engineering, structural mechanics, geotechnical engineering, earthquake engineering, hydrology and water resources engineering, and environmental engineering.

The ABET-accredited civil engineering curriculum leads to a B.S. in Civil Engineering, a broad-based education in structural engineering, geotechnical engineering, hydrology and water resources engineering, and environmental engineering. This program is an excellent foundation for entry into professional practice in civil engineering or for more advanced study. The department also offers the undergraduate Environmental Engineering minor.

At the graduate level, M.S. and Ph.D. degree programs are offered in the areas of civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structures (including structural/earthquake engineering and structural mechanics). In these areas, research is being done on a variety of problems ranging from basic physics and mechanics problems to critical problems in earthquake engineering and in the development of new technologies for pollution control and water distribution and treatment.

Undergraduate Study

The Civil Engineering major is a designated capstone major. In each of the major field design courses, students work individually and in groups to complete design projects. To do so, they draw on their prior coursework, research the needed materials and possible approaches to creating their device or system, and come up with creative solutions. This process enables them to integrate many of the principles they have learned previously and apply them to real systems. In completing their projects, students are also expected to demonstrate effective oral and written communication skills, as well as their ability to work productively with others as part of a team.

Civil Engineering B.S.

Capstone Major

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, 15; Computer Science 31 (or another programming course approved by the Faculty Executive Committee); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1), 4AL.

The Major

Required: Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 101, 103, 108, 110, 120, 135A, 150, 153, Materials Science and Engineering 104, Mechanical and Aerospace Engineering 103, 182A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least nine major field elective courses (36 units) that must include the required courses in two of the following tracks and at least two laboratory courses, one of which must be from one of the two selected tracks and the other from any separate track:

Environmental Engineering: Required: One capstone design course from Civil and Environmental Engineering 157B or 157C; recommended courses: 154, 155, 163, 164, 1M66; laboratory courses: 156A, 156B.

Geotechnical Engineering: Required: One capstone design course (Civil and Environmental Engineering 121); recommended courses: 123, 125, Earth and Space Sciences 139; laboratory courses: 128L, 129.

Hydrology and Water Resources Engineering: Required: One capstone design course from Civil and Environmental Engineering 151 or 157L; recommended courses: 151, 157A, 157M; laboratory courses: 157L, 157M.

Structural Engineering and Mechanics: Required: Civil and Environmental Engineering 135B, one lecture course from 130, 135C, 137, 141, or 142, and one capstone design course from 135L, 142L, 144, or 147; recommended courses: 121, 125, 130, 137, 141, 142, 143, 144, 147; laboratory courses: 130L, 135L, 137L, 140L, 142L.

Civil and Environmental Engineering
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; outside study, six hours. Introduction to scope of civil engineering profession, including earth-quake, environmental, geotechnical, structural, trans-portation, and water resources engineering. P/NP grading.

15. Introduction to Computing for Civil Engineers. (2) Lecture, two hours; laboratory, two hours; outside study, two hours. Introduction to computer program-ming using MATLAB. Selected topics in programming, with emphasis on numerical techniques and method-ology as applied to civil engineering programs. Letter grading.

58SL. Climate Change, Water Quality, and Eco-system Functioning. (5) Lecture, four hours; service-learning, two hours; outside study, six hours. Topics include carbon and nutrient cycling, hydrologic cycle, ecosystem structure and function, water quality, and ecosystem health. Applied research in civil engineering. Letter grading.

95. Professional Practice Issues in Structural En-gineering. (2) Seminar, two hours; outside study, four hours. Topics include professional practice in structural engineering. Students will study and discuss model building codes and material-specific reference standards. Letter grading.

Upper Division Courses

101. Statics and Dynamics. (4) Lecture, four hours; computer laboratory, two hours; outside study, six hours. Introduction to structural engineering. Topics include equilibrium principles; forces and moments transmit-ted by slender members. Concepts of stress and strain. Stress-strain relations with focus on linear elas-ticity. Transformation of stress and strain. Deforma-tions and stresses caused by tension, compression, bending, shear, and torsion of slender members. Structural applications to trusses, beams, shafts, and columns. Letter grading.

105. Technical Communication. (4) Lecture, four hours; computer laboratory, two hours; outside study, six hours. Topics include professional practice in structural engineering. Students will study and discuss model building codes and material-specific reference standards. Letter grading.

106A. Problem Solving in Engineering Economy. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Topics include professional practice in structural engineering. Students will study and discuss model building codes and material-specific reference standards. Letter grading.

110. Introduction to Probability and Statistics for Engineers. (2) Lecture, two hours; outside study, two hours. Introduction to probability and statistics in civil engineering. Letter grading.

121. Advanced Geotechnical Design. (4) Lecture, four hours; computer laboratory, two hours; outside study, six hours. Topics include professional practice in structural engineering. Students will study and discuss model building codes and material-specific reference standards. Letter grading.
slope stability analyses. Case history studies involving landslides, settlement, and expansive soil problems, and new methodologies for those problems. Within context of above technical problems, emphasis on preparation of professional engineering documents such as proposals, work acknowledge-
ments, figures, plans, and reports. Letter grading.

125F. Introduction to Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 135A. Overview of engineering seismology, including plate tectonics, faults, wave propagation, and earthquake strong ground motion. Development and selection of design ground motions using both probabilistic seismic hazard analysis and code-based methods. Overview of seismic design regulations for buildings including capacity design and seismic component. Code-based seismic design for new buildings using California Building Code (International Building Code 2006). Overview of seismic design of bridges, dams, and other non-building structures. Let-
ter 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 parameters required for assigned design problems. Soil classification, grain size distribution, Atter-
berg limits, specific gravity, compaction, expansion index, remolding and cementation design problems, laboratory report writing. Letter grading.

129. Engineering Geomatics. (4) Lecture, two hours; recitation, two hours; fieldwork, four hours; outside study, six hours. Requisite: course 108. Analysis of stress and strain, phenomenological material behavior, ex-
tension, bending, and transverse shear stresses in beams with general cross-sections, shear center, def-
flection of beams, torsion of beams, warping, column instability. 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, ex-
tension, bending, and transverse shear stresses in beams with general cross-sections, shear center, de-
flection of beams, torsion of beams, warping, column instability. Letter grading.

130L. Experimental Structural Mechanics. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite or corequisite: course 130. Lab-
toratories and laboratory experiments in various structural mechanics testing of metals, plastics, and concrete. Direct tension. Direct compression. Ultrasonic nonde-
structive evaluation. Elastic buckling of columns. Frac-
ture mechanics testing and fracture toughness. Split-
ting and flexural tension. Elastic, plastic, and fracture behavior. ASTM, RILEM, and USBSR. Cyclic loading. Microstructures of concrete. Size effects. Letter grade-
ing.

135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Requisite: courses 15, 103, 108. Introduction to structural analysis; classification of structural ele-
ments: statically determinate, statically indeterminate, beams, and frames; deflections in elementary struc-
tures; virtual work; analysis of indeterminate struc-
tures using force method; introduction to displace-
ment 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 method, and direct stiffness method; analysis concepts based on theorem of virtual work; moment dis-
tribution. Letter grading.

M135C. Introduction to Finite Element Methods. (4) Same as Mechanical and Aerospace Engineering M166A and Aerospace Engineering 166A. Lecture, four hours; outside study, seven hours. Requisite: course 130 or Me-
chanical and Aerospace Engineering 156A or 166A.

Introduction to basic concepts of finite element meth-
ods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ritz approximation methods; shape functions; conver-
gence properties; isoparametric formulation of multi-
dimensional heat flow and elasticity; numerical integra-
tion; Galerkin and weighted residual methods; geometric and analytical modeling; preprocessing and postprocess-
ing techniques; term projects with computers. Letter grading.

135L. Structural Design and Testing Laboratory. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisites: courses 15, 135A. Limit-
ed enrollment. Computer-aided optimum design, con-
struction, instrumentation, and test of small-scale model structure. Use of computer-based data acquisi-
tion and interpretation systems for comparison of ex-
perimental and theoretically predicted behavior. Letter grading.

137. Elementary Structural Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135B. Basic structural dy-
namics course for civil engineering students. Elastic free vibrations. One-dimensional systems. Develop-
ment of the spectrum analysis for simple 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. Cal-
ibration of instrumentation for dynamic measure-
ments. Determination of natural frequencies and damping factors from free vibrations. Determination of natural frequencies, mode shapes, and damping fac-

140L. Structural Components and Systems Test-
Ing Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requi-
site: course 142. Comparison of experimental results with analytical results and code requirements to as-
sess accuracies and limitations of calculation proce-
dures used in structural design. Tests include quasi-
static tests of structural elements (beams, columns) and systems (slab-column, beam-column) and dy-
namic tests of simple building systems. Quasi-static tests focus on assessment of element or subsystem stiffness, strength, and deformation capacity, whereas dynamic tests focus on periods, mode shapes, and damping. Development of communica-
tion skills through preparation of laboratory reports and oral presentations. Letter grading.

141. Steel Structures. (4) Lecture, four hours; dis-
cussion, two hours; outside study, six hours. Enforced requi-
site: course 135A. Introduction to building codes. Fun-
damentals of load and resistance factor design and design of steel members. Design of beams and column members. Sim-
plicity in connection design. Introduction to computer mod-
eling methods and design process. Letter grading.

142. Design of Reinforced Concrete Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Beams, col-
umns, and slabs in reinforced concrete structures. Prop-
erties of reinforced concrete materials. Design of beams and columns; design of reinforcement; de-

142L. Reinforced Concrete Structural Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: courses 135B, 142. Lim-
ited enrollment. Design considerations used for rein-
forced concrete beams, columns, slabs, and joints evaluated analytically and experimentally. Links be-
tween theory, building codes, and experimental re-
results. Students demonstrate accuracies and limita-
tions of calculation procedures used in design of rein-
forced concrete and development of skills for written and oral presentations. Letter grading.

143. Design of Prestressed Concrete Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 135A, 142. Pre-
 stressing and post-tensioning techniques. Properties of con-
crete and prestressing steels. Design consider-
ations: anchorage/bonding of cables/wire, flexure analysis by superposition and strength methods, defor-
mation, deflection and stiffness, indetermi-
inate structures, limitation of prestressing. Letter grad-
ing.

144. Structural Systems Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 141 or 142. Design course for civil engineering students, with focus on design and per-
formance of complete building structural systems. In-
troduction to California Building Code 7 dead, hori-
zonal, live, and wind, and earthquake loads. Design of reinforced concrete and structural steel buildings. Computer modeling, analysis, and performance assessment of build-
ings. Letter grading.

147. Design and Construction of Tall Buildings. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisites: courses 135B, 141. Role of structural en-
gineer, architect, and other design professions in de-
sign of tall buildings. Influence of building code, zoning, and finance. Advantages and limitations of different struc-
tural systems. Development of structural system de-
sign and computer model for architectural design. Let-
ter grading.

150. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 15, Mechanical and Aero-
space Engineering 103. Study of hydrologic cycle and relevant atmospheric processes, water and energy balance, radiation, precipitation formation, infiltration, evaporation, vegetation transpiration, groundwater flow, storm runoff, and flood processes. Letter grad-
ing.

151. Introduction to Water Resources Engineer-
ing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 15, Mechanical and AERO-
space Engineering 103. Water, air, and soil pollution: sourc-
e control, transmission, effects, or remov-

153. Introduction to Environmental Engineering Science. (4) Lecture, four hours; discussion, one hour (when scheduled); outside study, seven hours. Recommended requisite: Mechanical and Aerospace Engineering 103. Water, air, and soil pollution: sourc-
e control, transmission, effects, or remov-

155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture, four hours; dis-
cussion, two hours; outside study, six hours. Enforced requisites: course 153. Biologica-
156. Chemical Fate and Transport in Aquatic Envi-
ronments. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: course 153. Fundamental physical, chemical, and biological prin-
ciples governing movement and fate of chemicals in surface waters and groundwater. Topics include phys-
ical transport in various aquatic environments, air wa-
ter exchange, acid-base equilibria, oxidation-reduc-
tion chemistry, chemical sorption, bioaccumulation, and bioaccumulation. Practical quantitative problems solved considering both reaction and transport of chemicals in environment. Letter grading.

156A. Environmental Chemistry Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Recommended requisite: course 156. Bio-
158. Chemical and Environmental Engineering 156A or 166A.
and wastewater analysis. Selected experiments include gravimetric analysis, titrmetric spectrophotometry, redox potential, and electrical conductivity. Concepts to be applied to analysis of "real" water samples in course 156B. Letter grading.

156B. Environmental Engineering Unit Operations and Processes Laboratory. (4) Laboratory, six hours; discussion, two hours; outside study, four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of natural waters and wastewater for inorganic and organic constituents. Selected experiments include analysis of solids, nitrogen species, oxygen demand, and chlorine residual, that are used in unit operation experiments that include reactor dynamics, aeration, air stripping, coagulation/flocculation, and membrane separation. Letter grading.

157A. Hydrologic Modeling. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 150, 151. Introduction to hydrologic modeling. Topics selected from areas of (1) open-channel flow, including one-dimensional steady flow, unsteady flow, and sediment transport, (2) pipe and flow and water distribution systems, (3) rainfall-runoff modeling, and (4) flow modeling, with focus on use of industry and research standard models with locally relevant applications. Letter grading.

157B. Design of Water Treatment Plants. (4) Lecture, two hours; discussion, two hours; laboratory, four hours; outside study, four hours. Requisite: course 155. Water quality standards and regulations, overview of water treatment plants, design of unit operations, predesign of water treatment plants, hydraulics of plants, process control, and cost estimation. Letter grading.

157C. Design of Wastewater Treatment Plants. (4) Lecture, four hours; outside study, eight hours. Requisite: course 157B. Application of wastewater treatment plants, including primary and secondary treatment, detailed design review of existing plants, process control, and economics. Letter grading.

157L. Hydrologic Analysis and Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisites: courses 150 and/or 151. Collection, compilation, and interpretation of data for quantification of surface water components of hydrologic cycle, including precipitation, evaporation, infiltration, and runoff. Use of hydrologic variables and parameters for development, construction, and application of analytical models for selected problems in hydrology and water resources. Field trip required. Letter grading.

157M. Hydrology of Mountain Watersheds. (4) Lecture, one hour; fieldwork, four hours; laboratory, three hours; outside study, five hours; one field trip. Requisite: course 150 or 157L. Advanced field and laboratory-based course with focus on study of hydrologic and geologic processes in snow-dominated and mountainous regions. Students measure and quantify snowpack properties, snowmelt, discharge, infiltration, soil properties, and local meteorology, as well as investigate geologic properties of surface and groundwater systems. Exploration of rating curves, stream classification, and flooding potential. Extended field trip required. Letter grading.

163. Introduction to Atmospheric Chemistry and Air Pollution. (4) Lecture, four hours; outside study, eight hours. Requisite: 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 rural pollution, acid deposition, nitrogen deposition/deposition of acid precipitation, fate of anthropogenic/toxic/natural organic and inorganic compounds, selected global chemical cycle(s). Control technology. Letter grading.


166. Environmental and Public Health Biology. (4) (Same as Environmental Health Sciences 166L.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 153. Microbial cell and organism behavior, microbial genetics and basic potential, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health impacts, microbial control. Letter grading. 166L. Environmental Microbiology and Biotechnology Laboratory. (1) (Same as Environmental Health Sciences 166L.) Laboratory, two hours; outside study, two hours. Corequisite: course 166L. General laboratory techniques using environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying environmental biotechnology. Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/seniors. Applications of traffic flow theories; data collection and analyses; intersection design analyses; simulation models; traffic signal design; signal timing design, implementation, and performance evaluation; Intelligent Transportation Systems concept, architecture, and implementation. Letter grading.


194. Research Group Seminars: Civil and Environmental Engineering. (2 to 8) Seminar, to be arranged; outside study, to be arranged. Designed for juniors and seniors. Discussion of research methods and current research activities. Applications of traffic flow theories; data collection and analyses; intersection design analyses; simulation models; traffic signal design; signal timing design, implementation, and performance evaluation; Intelligent Transportation Systems concept, architecture, and implementation. Letter grading.


225. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 222. Analysis of earthquake-induced ground failure, including soil liquefaction, cyclic softening of clays, seismic compression, surface fault rupture, and seismic slope stability. Ground response. Ground response on earthquake ground motions. Soil-structure interaction, including inertial and kinematic interaction and foundation deformations under seismic loading. Letter grading.

226. Geoenvironmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Field of geoenvironmental engineering involves application of geotechnical principles to envi-
ronmental problems. Topics include environmental regulations, waste characterization, geosynthetics, soil and water quality, and a surface barrier with a proposal of high water content materials. Letter grading.

227. Numerical Methods in Geotechnical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to basic concepts of numerical modeling of soils using finite element method, and to constitutive modeling based on elasticity and plasticity theories. Special emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, convergence, 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. Lectures 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. Review of advanced instrumentation and measurement techniques. Letter grading.


M230B. Nonlinear Elasticity. (4) Same as Mechanical and Aerospace Engineering M256B.) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws, Cauchy and Piola stresses, Cauchy equations of motion; balance of energy, stored energy; constitutive relations, elasticity, hyperelasticity, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.


232. Theory of Plates and Shells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130. Small and large deformation theories of thin plates; 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 methods, finite element analysis, structural synthesis, nonlinear mechanics, and structural mechanics in general. 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 analysis; virtual work theorem, virtual forces, and displacements; theorems on stationary value of total and complementary potential energy, and minimum total potential energy. Maxwell/Betti theorems, effects of approximations, introduction to finite element analysis. Letter grading.

235B. Finite Element Analysis of Structures. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 130, 235A. Direct energy formulations for deformable systems; solution methods for linear and non-linear structural systems with one-dimensional elements; introduction to variational calculus; discrete element displacement, force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.

235C. Nonlinear Structural Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 235B. Classification of nonlinear effects; material nonlinearities; conservative, nonconservative material behavior; geometric nonlinearities, Lagrangian, Eulerian description of motion; finite element methods in geometrically nonlinear problems; postbuckling behavior of structures; solution of nonlinear equations; incremental, iterative, programming methods. Letter grading.


243A. Behavior and Design of Reinforced Concrete Structural Elements. (4) Lecture, four hours; outside study, eight hours. Requisite: course 142. Advanced topics on design of reinforced concrete structures 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 Concrete Structural Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 243A, 246. Information on response and behavior of reinforced concrete buildings to earthquake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiffness, and ductility in response, use of prescriptive versus performance-based design methodologies, and application of elastic and inelastic analysis techniques for new and existing structures. Letter grading.

244. Structural Loads and Safety for Civil Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 141 or 142 or 143 or 144. Modeling of uncertainties in structural loads and structural mechanics; structural safety analysis; and calculation of capacity reduction factors. Letter grading.

245. Earthquake Ground Motion Characterization. (4) Lecture, four hours; outside study, eight hours. Requisite: course 137 or 137 or 138 or 138. Spectral analysis of ground motions: response, time, and Fourier spectra. Response of structures to ground motions due to earthquakes. Computational methods to evaluate structural response. Analysis, including evaluation of contemporary design standards. Limitations due to idealizations. Letter grading.

247. Earthquake Hazard Mitigation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 130 and 237A or 246. Concept of seismic isolation, linear theory of base isolation, visco-elastic and hysteretic behavior, elastomeric bearings under compression and bending, buckling of bearings, sliding bearings, passive energy dissipation devices, response of structures with isolation and passive energy dissipation devices, and dynamic analysis procedures, code provisions and design methods for seismically isolated structures. Letter grading.

248. Probabilistic Structural Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 137 or 141 or 235A. Principles of structural mechanics, and Geotechnical Engineering. (2) Lecture, two hours; outside study, six hours. Review of recent research and developments in structural engineering, structural mechanics, and geotechnical engineering. Structural analysis, finite elements, structural stability, dynamics of structures, structural design: earthquake engineering; ground motion, elasticity, plasticity, structural mechanics, mechanics of composites, constitutive modeling, geomechanics, and geotechnical engineering. 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 surface water hydrology, including discussion and interrelationship of major topics such as rainfall and evaporation, soils and infiltration properties, runoff and snowmelt processes. Introduction to rainfall-runoff modeling, floods, and policy issues involved in water resource engineering and management. Letter grading.

250C. Hydrodynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 250A. In-depth study of hydrodynamical processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, exchange of mass, heat, and momentum between soil and atmosphere and their overlaying atmospheric flux and transport in turbulent boundary layer, basic remote sensing principles. Letter grading.

250D. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; optimal timing, sequencing and sizing of water resources projects; and multiobjective planning and optimal timing, sequencing and sizing of water re- gramming techniques to water resources systems. Emphasis on management of water quantity. Letter grading.

251A. Rainfall-Runoff Modeling. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 251B. Introduction to hydrologic modeling concepts, including rainfall-runoff analysis, input data, uncertainty analysis, lumped and distributed modeling, parameter estimation, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

251B. Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 253. Phenomena and mecha- nisms of hydraulic dispersion, governing equa- tions of mass transport in porous media, various ana- lytical and numerical solutions, determination of dispersion parameters by laboratory and field experiments, biological and reactive transport in multiphase flow, remediation design, software packages and ap- plications. Letter grading.

251C. Remote Sensing with Hydrologic Applica- tions. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic concepts of remote sensing and their relation to surface and atmospheric hydrologic process- es. Applications include radiative transfer modeling and retrieval of hydrologically relevant parameters like topography, forest moisture, snow properties, vegeta- tion, and precipitation. Letter grading.

251D. Hydrologic Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to classic methods and Bayesian estimation theory for pur- poses of hydrologic data assimilation. Applications geared toward assimilating disparate observations into dynamic models of hydrologic systems. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; one 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 prob- lems; application of price theory to water resource management and renewable resources; benefit-cost analysis with applications to water resources and en- vironmental planning. 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 filtration, carbon adsorption, gas transfer, disinfection, oxidation, and membrane processes. Letter grading.


255A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Application of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electrodialysis, and ion exchange technologies from both practical and theo- retical standpoint. Letter grading.

255A. Selected Topics in Environmental Engineer- ing. (2) Lecture, two hours; outside study, four hours. Review of recent research and developments in envi- ronmental engineering. Water and wastewater treat- ment systems, nonpoint pollution, multimedia im- pacts. May be repeated for credit. S/U grading.

255B. Selected Topics in Water Resources. (2 to 4) Lecture, four hours; outside study, eight hours. Re- view of recent research and developments in water resources. Water supply and hydrology, global climate change, economic planning, optimization of water re- sources development. May be taken for maximum of 4 units. Letter grading.

260. Advanced Topics in Hydrology and Water Re- sources. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. Cur- rent research topics in hydrologic parameter estimation, experimental design, conjunctive use of surface and groundwater, multiobjective water re- sources planning, and optimization of water resource systems. Topics may vary from term to term. Letter grading.


261B. Advanced Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisite: course 252B. In- depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodeg- radation of xenobiotics, pharmaceuticals, emerging pollutants and toxicity, and gas exchange. Discussion of the- oretical aspects, experimental observations, and re- cent literature. Application to important and emerging environmental problems. Letter grading.

262A. Environmental Biotechnology. (4) (Same as Atmospheric and Oceanic Sciences M230A.) Lecture, three hours. Requisite for under- graduates: Chemistry 20B. Principles of chemical ki- netics, thermodynamics, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key at- mospheric constituents; basic photochemistry of tro- posphere and stratosphere, upper atmosphere chemi- cal processes; air pollution; chemistry and climate. S/ U or letter grading.

262B. Atmospheric Diffusion and Air Pollution. (4) (Same as Atmospheric and Oceanic Sciences M224B.) Lecture, three hours. Nature and sources of atmospheric pollution; effect on point, line, and area sources; pollution dispersion in urban complex- es; meteorological factors and air pollution potential; meteorological aspects of air pollution. S/U or letter grading.

263A. Physics of Environmental Transport. (4) Lecture, four hours; outside study, eight hours. De- signed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Empha- sis on exchanges across phase boundaries; sedi- ment/water interface; air/water gas exchange; parti- cles, droplets, and bubbles; small-scale dispersion and mixing; effect of reactions on transport; linkages between physical, chemical, and biological process- es. Letter grading.

263B. Advanced Topics in Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. Requisite: course 263A. In-depth treatment of selected topics in inverse problems such as phe- nomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, po- rous aggregates, and vegetation canopies. Discusses- ses both theoretical models and experimental observa- tions. Application to important environmental engi- neering problems. Letter grading.

265A. Mass Transfer in Environmental Systems. (4) Lecture, four hours; computer applications, two hours; outside study, eight hours. Designed for gradu- ate environmental engineering program 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 retardation, vaporization and dissolution of nonaqueous phase liquids (NAPL), and other environmental systems. Letter grading.


267. Environmental Applications of Geochemical Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Geochemical modeling is important tool for predicting environmen- tal impacts of contamination. Hands-on experience in modeling using geochemical software packages com- monly found in environmental consulting industry to gain better understanding of governing geochemical principles pertaining to movement and transformation of contaminants. Types of modeling include specia- tion, mineral solubility, surface complexation, reaction path, inverse mass balance, and reactive transport modeling. Case studies involve acid mine drainage, nuclear waste disposal, bioavailability and risk as- sessment, mine tailings and mining waste, deep well injection, landfill leachate, and terrestrial respiration. Research/modeling project required. Letter grading.

269. Advanced Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Discussion of current re- search and literature in research specialty of faculty member teaching course. S/U grading.

279. Seminar: Current Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Lectures, dis- cussions, and student presentations and projects in ar- eas of current interest in civil engineering. May be re- peated for credit. S/U grading.
298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

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

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Civil and Environmental Engineering Department. Seminar on communication of civil engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate civil engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) 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. 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. 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 civil engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Professors Emeriti
Bernard D. Frischer, Ph.D.
Michael W. Haslam, Ph.D.
Steven Lattimore, Ph.D.
Philip Levine, Ph.D.
Jaan Puhvel, Ph.D.

Associate Professors
Robert A. Guralv, Ph.D.
Alex C. Purves, Ph.D.

Assistant Professors
Chris J. Johanson, Ph.D.
Kathryn J. McDonnell, Ph.D.
Mario Telò, Ph.D.

Adjunct Associate Professor
Catherine Atherton, Ph.D.

Scope and Objectives
The civilizations of ancient Greece and Rome are the focus of research and teaching in the Classics Department. These areas of study are important in their own right and for their contributions to the political, cultural, intellectual, and artistic development of the Western world. To this end, the department offers a wide variety of interdisciplinary courses in classical civilization (multiple-listed in the Art History, Philosophy, and Political Science Departments), as well as elementary and advanced courses in ancient Greek and Latin language, literature, and linguistics. Classical civilization courses include such topics as Greek and Latin literature in translation (genres of epic, comedy, tragedy, biography), classical mythology, religion, law, gender and sexuality, politics, philosophy, art and archaeology, and the reception of the ancient world in modern cultures (cinema and classics).

The department offers Bachelor of Arts degrees in Classical Civilization, in Greek, in Latin, and in Greek and Latin and the Ph.D. degree in Classics. Students can earn Master of Arts degrees in Classics (Greek and Latin), in Greek, or in Latin only after they have been admitted to the Ph.D. program.

Undergraduate Study
Students considering a major in the department should consult the adviser as soon as possible in their University career, but in no case later than the point at which they are about to take upper division courses.

The majors offered in the Classics Department are designated capstone majors. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discussion with their peers.

Classical Civilization B.A.
Capstone Major
The civilizations of ancient Greece and Rome have made important contributions to the political, social, artistic, and intellectual development of the Western world. The purpose of the Classical Civilization major is to provide 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, Greek 3 or 16 or Latin 3 or 16, and two courses from 30, 40W, 41W, 42, 51A, 51B, 87GE, 88GE.

Transfer Students
Transfer applicants to the Classical Civilization major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one classical Greek culture course, one Roman civilization course, and one course in Greek or Roman literature in translation, classical mythology, or classical archaeology.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) Ten upper division courses in the department (courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser) — no more than three may be selected from Greek 100 through 133 or Latin 100 through 133, and Classics 198A and 198B may be applied as only one course toward the major and (2) one capstone seminar (Classics 191). All other courses in the 190 series may be substituted only by petition.

Greek B.A.
Capstone Major
The civilizations of ancient Greece and Rome have made important contributions to the political, social, artistic, and intellectual development of the Western world. The purpose of the Classical Civilization major is to provide 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, Greek 3 or 16 or Latin 3 or 16, and two courses from 30, 40W, 41W, 42, 51A, 51B, 87GE, 88GE.

Transfer Students
Transfer applicants to the Classical Civilization major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one classical Greek culture course, one Roman civilization course, and one course in Greek or Roman literature in translation, classical mythology, or classical archaeology.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.
The Major

Required: (1) Seven upper division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper division courses in classical civilization and/or ancient history (History 112A through 112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

Greek and Latin B.A.

Capstone Major

Preparation for the Major

Required: Classics 10, 20; Greek 1, 2, 3, 20 and Latin 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

Transfer Students

Transfer applicants to the Greek and Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admt.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: (1) Eight upper division Greek and/or Latin courses (of which at least four must be in each language), including Greek 110 or Latin 110; Greek and/or Latin 197 and 199 may be applied only by petition; (2) three upper division courses in classical civilization and/or ancient history (History 112A through 112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

Latin B.A.

Capstone Major

Preparation for the Major

Required: Classics 10, 20; Latin 1, 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 1, 2, 3.

Transfer Students

Transfer applicants to the Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admt.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: (1) Seven upper division Latin courses, including course 110; Latin 197 and 199 may be applied only by petition; (2) three upper division courses in classical civilization and/or ancient history (History 112A through 112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

Honors Program

Admission

The honors program is open to all departmental majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements

All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B for credit terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper division classical civilization requirement for departmental majors.

To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A– or better.

Classical Civilization Minor

The Classical Civilization minor is designed to recognize a serious commitment to the study of the cultures and civilizations of ancient Greece and Rome. Lower division survey courses in historical studies, classical literature, mythology, and film provide an essential introduction to the imagination and power of the ancient world. Students may fulfill upper division requirements from a variety of courses in classical civilization and related fields, including political and social history, literature, art and archaeology, religion, mythology, philosophy, and cultural studies of ethnicity, gender, and sexuality in antiquity.

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

Required Lower Division Courses (15 units): Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B.

Required Upper Division Courses (20 units): Five upper division courses in classical civilization offered by the department. One course in a related field may be substituted with approval of the faculty undergraduate adviser. Classics 191 may be applied, but all other courses in the 190 series may be substituted only by petition.

Greek Minor

The Greek minor is designed to recognize a serious commitment to the study of the Greek language. After a year of elementary Greek (Greek 1, 2, 3) or its equivalent, students select departmental upper division reading courses in ancient Greek prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Homeric epic, lyric poetry, tragedy and comedy, history, rhetoric, philosophy, and the New Testament.

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

Required Lower Division Courses (14 units): Greek 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 2 and 3.

Required Upper Division Courses (20 units): Five courses selected from Greek 100 through 133.

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

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

Latin Minor

The Latin minor is designed to recognize a serious commitment to the study of the Latin language. After a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper division reading courses in classical (and/or late antique and medieval) Latin prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, 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 (14 units): Latin 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 2 and 3.

Required Upper Division Courses (20 units): Five courses selected from Latin 100 through 133.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaaa /library/pgmrqintro.htm. 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.) degree in Classics. M.A. degrees can be earned only after completion of a Master of Philosophy (Ph.D.) degree in Classics. M.A. degrees can be earned only after students have been admitted to the Ph.D. program.

Classics

Lower Division Courses

10. Discovering Greeks. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Greek life and culture from age of Homer to Roman conquest. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

20. Discovering Romans. (5) Lecture, three hours; discussion, one hour. Knowledge of Greek 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 Rome, role of these stories in their societies, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration in detail and from variety of critical perspectives of carefully selected set of literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

41W. Reading Roman Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration in detail and from variety of critical perspectives of carefully selected set of literary texts characteristic of ancient Greece and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

42. Cinema and Ancient Heritage. (5) Lecture/screenings, five hours; discussion, 75 minutes. Use of popular culture and cinema to introduce students to ancient Greek and/or Roman culture; focus at discretion of instructor. P/NP or letter grading.

51A. Art and Archaeology of Ancient Greece. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Greek art and archaeology at discretion of instructor. P/NP or letter grading.

51B. Art and Archaeology of Ancient Rome. (5) Lecture, three hours; discussion, 75 minutes. Survey of major period, theme, or medium of Roman art and archaeology at discretion of instructor. P/NP or letter grading.

87GE. General Education Seminar Sequences. (5) Seminar, three hours. Enforced requisite: course 20. Focused study of one aspect of ancient Greek or Roman culture or reception of classical tradition. Topics are interdisciplinary in nature (literature, arts, religion, politics, culture) and make connections between ancient and postclassical eras. P/NP or letter grading.

98A-98Z. Lower Division Seminars. (4) (Each) Seminar, three hours (when scheduled). Enforced requisite: one course from Ancient Greek or Roman culture or reception of classical tradition. Topics are interdisciplinary in nature (literature, arts, religion, politics, culture) and make connections between ancient and postclassical eras. Topics include rediscov- ery of Pompeii and Herculaneum; Roman religion and literature; pleasures of Greek or Roman body; and 18th-century British literature and reception of clas- sics. 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. Exposure and critical analysis of major political philosophers and schools from Plato to Machiavelli. P/NP or letter grading.

M124. Modern Receptions of Ancient Political Thought. (4) (Same as Political Science M119A.) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has interpreted and rein- terpreted political thought of ancient Greeks and Ro- mans. Topics include examination of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.

M125. Invention of Democracy. (5) (Same as Polit- ical Science M112B.) Lecture, three or four hours; dis- cussion, one hour (when scheduled). Designed for ju- niors/seniors. Democracy was invented in ancient Greece. Political form grounded on equality before law, citizenship, and freedom, it came into existence as struggle by “demois,” people, aware of its excel- lence and proud of its power, “kratos.” It became only regime capable of including all members of communi- ty while disregarding wealth, status, and diverging in- terests. Examination of history and theory of ancient democracy. P/NP or letter grading.


140. Topics in History of Greek Literature. (4) Lecture, three hours. Requisite: course 10 or 40W. Investi- gation of specific issue in understanding of Greek lit- erature, such as definition of one genre or evaluation of particular author. May be repeated for credit with topic change. P/NP or letter grading.

141. Topics in History of Latin Literature. (4) Lecture, three hours. Requisite: course 20 or 41W. Investi- gation of specific issue in interpretation of Latin liter- ature, such as definition of one genre or evaluation of particular author. May be repeated for credit with topic change. P/NP or letter grading.

142. Ancient Epic. (4) Lecture, three hours. Requi- site: one course from 10, 20, 30, 40W, or 41W. Hom- er’s Iliad and Odyssey, Vergil’s Aeneid, and Ovid’s Metamorphoses, studied in translation. P/NP or letter grading.

143A. Ancient Tragedy. (4) Lecture, three hours. Requisite: course 10 or 20. Survey of drama as it developed in Greek and Roman worlds. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. Requisite: course 10 or 20. Survey of comedy as it developed in Greek and Roman worlds. P/NP or letter grading.

144. Topical Studies in Ancient Culture. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40W, or 41W. Investigation of one problem in an- cient 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 M103B.) Lecture, three hours. Requisite: one course from M145A, Philosophy 1, 100A, M101B, or M102. Study of some major texts in Greek and Roman philosophical texts, including those of pre-Socrates, Plato, Aristotle, and Hellenistic philosophers, with emphasis on the historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B.) Lecture, three hours. Requisite: one course from M145A, Philosophy 1, 100A, M101B, or M102. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

M146A. Plato — Earlier Dialogues. (4) (Same as Philosophy M101A.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M146B. Plato — Later Dialogues. (4) (Same as Phi- losophy M101B.) Lecture, three hours; discussion, one hour. Requisite: course M146A. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M147. Aristotle. (4) (Same as Philosophy M102.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.


150A. Female in Greek Literature and Culture. (4) Lecture, three hours. Requisite: course 10. Interdisci- plinary study of concept of female in Greek literature and culture. P/NP or letter grading.

150B. Female in Roman Literature and Culture. (4) Lecture, three hours; discussion, one hour. Requi- site: course 20. Interdisciplinary study of concept of female in Roman literature and culture. P/NP or letter grading.

C151E. Archaeological Field Techniques. (12) Off- campus field archaeology, 36 hours. Preparation: at least one classical archaeology course, training in techniques of archaeological research in field, includ- ing topographic and area survey, mapping and re- corded artifacts, excavation and data analysis. Conduct- ed in Mediterranean area. Concurrently sched- uled with course C251E. P/NP or letter grading.
152A. Ancient City: Greek World. (4) Lecture, three hours. Enforced requisites: courses 10 or 51A or Art History 50A. May be repeated for credit with topic change. P/NP or letter grading.

152B. Ancient City: Roman World. (4) Lecture, three hours. Enforced requisites: courses 20 or 51B or Art History 50 or History 1A. Range of interdisciplinary approaches to study of Athens and/or cities of Greek world, including Asia Minor, south Italy, and Sicily. Approaches, themes, and periods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

M153I. Study of Aegean, Greek, and Roman Architecture, Greek and Latin not required. General introduction to nature, three hours. Requisite: one course from 10, 20, 4.)

M153J-M153K. Classical Archaeology. (4-4-4) Lecture, three hours. Use of myth in principal authors and genres of Greek and Roman literature, with examples of its influence in later literature. P/NP or letter grading.


165. Ancient Athletics. (4) Lecture, three hours. Requisite: course 10 or History 1A. Study of ancient Greek and Roman athletics and their connections with religion, politics, literature, and art. P/NP or letter grading.

166A. Greek Religion. (4) Lecture, three hours. Requisite: course 10 or 30. Study of religion of ancient Greeks. P/NP or letter grading.


167. Magic in Ancient World. (4) Same as Ancient Near East M167.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of art of influencing natural course of events by occult means as practiced in ancient world at large. Coverage of beliefs in supernatural forces, rites aimed at controlling these forces effectively, and character and social roles of ritual experts in various cultures of ancient world. Source material includes types of magical spells, literary texts about magic and magicians, and records such as amulets and ritual implements. P/NP or letter grading.

168. Comparative Mythology. (4) Lecture, three hours. Requisite: course 30. Religious, mythological, and/or historical traditions of Greece and Rome compared with each other and with other traditions worldwide. P/NP or letter grading.

169. Sex in Ancient World. (4) Lecture, three hours. Requisite: course 10 or 20 or History 1A. Examination of sex and gender systems of Greek and Roman cultures in ancient Mediterranean world. What Greek and Roman sex/gender systems were, how they changed over time, and difference it makes. Readings include both modern theories about sex and history as foundation for course and broad range of texts in translation. P/NP or 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) Lecture, three hours. Origins and nature of English vocabulary, from Proto-Indo-European prehistory to current time. Topics include (Greek and Latin compo- nent in English (including technical terminology), alphabet and English spelling, semantic change and word formation, vocabulary in literature and film. P/NP or letter grading.

190. Research Colloquia in Classics. (1) Seminar, one hour. Limited to juniors/seniors. Designed to bring together students undertaking supervised tutorial research in seminars with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Capstone Seminar: Classics. (5) Seminar, three hours. Requisites: courses 10, 20, at least four upper division major courses. Limited to declared junior/senior departmental majors; minors may be admitted with consent of instructor. Topical research seminar on important themes, periods, genres of ancient Greek and Roman world. Intended to provide students with opportunity for serious engagement with research in discipline under close faculty supervision. Readings, discussions, oral presentations, and final research paper or project. May be repeated for credit. Letter grading.

193. Journal Club Seminars: Classics. (1) Seminar, one hour. Limited to undergraduate students. Group discussion of readings topics selected from current issues in classics and related disciplines. May be repeated for credit. P/NP grading.

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


199. Directed Research in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


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 grading.

M218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as English M215, French M210, and History M218.) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgments regarding the place to date and stage of origin, (2) provide training in accurate reading and transcription of late medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.
220A. Interfaces: Transmission of Roman Literature. (4) (Formerly numbered M220A.) Lecture, 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.

230A-230B. Language in Ancient Asia Minor. (4) Lecture, 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. *Note: Course 230A is requisite to 230B. Survey of language situation in Anatolia in 2nd and 1st millennia B.C. Readings in Hittite, Palai, Lu- wian, Hieroglyphic, Lycian, and Lydian texts. Analytical- ly examines the relationships and survivals in classical and Hellenistic times. S/U or letter grading.


245. Computing and Classics. (4) Discussion, three hours. Introduction to processing and analysis of digitized texts of classical authors for purposes of literary history and criticism. Letter grading. *Note: This course is required of all students majoring in Classics.


250. Topics in Greek and Roman Culture and Literature. (4) Seminar, three hours. Interdisciplinary study on topics of ancient Greek and Roman culture and literature. May be repeated for credit with topic change. S/U or letter grading.

251A. Seminar: Classical Archaeology — Aegean Bronze Age. (2 or 4) Seminar, three hours. Survey of Bronze Age. 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.

C251E. Archaeological Field Techniques. (12) Off-campus field archaeology, 36 hours. Preparation: at least one classical archaeology course. Training in techniques of archaeological research in field, including topographic and area survey, mapping and recording artifacts, excavation and data analysis. Conducted in Mediterranean area. Concurrently scheduled with course C151E. S/U or letter grading.

252. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of Athens, combining evidence of literature, inscriptions, and actual remains. S/U or letter grading.

253. Topography and Monuments of Rome. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of ancient Rome, combining evidence of literature, inscriptions, and actual remains. S/U or letter grading.

255. Topics in Ancient Religion. (2 or 4) Seminar, three hours. S/U or letter grading.


287. Graduate Colloquium in Classical Literature. (2) Seminar, three hours. Survey of basic methods of and approaches to classical scholarship, including textual criticism, interpretation, 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.

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

495. Teaching Classics. (2) Seminar, two hours. Normally to be taken by all graduate students in term before or during their first assignments as teaching assistants. Seminar/workshop in various pedagogical issues and strategies in preparation for teaching classical civilization, Greek, and/or Latin undergraduate courses. Readings and group discussions in topics related to teaching in field of classics. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

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

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Greek

Lower Division Courses

1. Elementary Greek. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

2. Elementary Greek. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1, P/NP or letter grading.

3. Elementary Greek. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2, P/NP or letter grading.

8A-BB-BC. Elementary Modern Greek. (4-4) (Formerly numbered B.) Lecture, three hours. Course 8A is enforced requisite to BB, which is enforced requisite to BC. Introductory modern Greek sequence, with emphasis on spoken modern Greek. P/NP or letter grading.

9A-9B-9C. Intermediate Modern Greek. (4-4-4) Lecture, three hours. Enforced requisite: course 8C. Course 9A is enforced requisite to 9B, which is enforced requisite to 9C. Intermediate-level program in modern Greek language study from communicative and task-based approach. Continued development of student understanding and use of Greek syntax and morphology through oral and written activities, reading, and listening. Students master basic communication skills, communicate in everyday real-life situations, comprehend simple passages, announcements, and advertisements, master basic rules of modern Greek grammar, and express themselves fluently, and write accurately. P/NP or letter grading.

15. Elementary Modern Greek. (12) Lecture, 18 to 19 hours. Eight-week intensive introduction to principles of speaking, reading, and writing modern (demosic) Greek. Offered in summer only. P/NP or letter grading.

16. Intensive First-Year Greek. (12) Lecture, 19 hours. Eight-week intensive introduction to Greek language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

20. Intermediate Greek. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 3 or 16. Formal review of Greek grammar and vocabulary; emphasis on development of reading and comprehension skills in reading original texts of Greek prose. Readings selected to introduce literature and culture of ancient Greece. P/NP or letter grading.

Upper Division Courses

100. Readings in Greek Prose. (4) Lecture, three to four hours. Enforced requisite: course 20. Selections from Plato and other classical Greek texts, along with grammar review. P/NP or letter grading.


103. Aeschylus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Sophocles. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


107. Hesiod. (4) Lecture, three hours. Requisite: course 100. Reading of Theogony and excerpts from Works and Days, with emphasis on Hesiod’s place in Greek literature and his role in transmission of Greek mythology. P/NP or letter grading.

110. Study of Greek Prose. (4) Lecture, three to four hours. Requisite: course 100. Work in sight reading and grammatical analysis of Attic prose texts; writing Attic prose. P/NP or letter grading.

111. Herodotus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

112. Thucydides. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


120. Plato. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

121. Plato. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


131. Readings in Later Greek. (4) Lecture, three hours. Requisite: course 100. Topics vary from year to year and include “Longinus;” On Sublime; Marcus Aurelius; Arrian; Second Sophist; Plutarch; later epic; epigram; epistolographi Graeci. P/NP or letter grading.


133. Readings in Byzantine Literature. (4) Lecture, three hours. Requisite: course 132. Topics vary from year to year and includeProcopius, Agathias, Michael Psellos, Alexiad of Anna Comnena, and Digenis Akritas. P/NP or letter grading.
Graduate Courses

200A-200B-200C. History of Greek Literature. (4-4-4) Lecture, three hours. Lectures on history of Greek literature, supplemented by reading of Greek texts in original language. Each course may be taken independently for credit. S/U or letter grading.

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.

213A-213B-213C. Later Greek and Byzantine Literature. (2 or 4 each) Seminar, three hours. Studies in various aspects of Byzantine Greek language and literature. Topics vary from year to year. Each course may be taken independently and may be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

223. Byzantine Poetry. (2 or 4) Lecture, three hours. Study of main representatives of both religious and secular poetry. S/U (2-unit course) or letter (4-unit course) grading.

240A-240B. History of Greek Language. (2 or 4 each) Lecture, four hours. S/U or letter grading.


243. Mycenaean Greek. (2 or 4) Seminar, three hours. Script, language, and grammar of Linear B inscriptions; their relevance to ancient Greek linguistic and cultural history. S/U or letter grading.


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.

4. Elementary Latin: Intensive. (10) Lecture, 10 hours. Eight-week intensive introduction to Latin language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

Upper Division Courses


103. Lucretius. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Ovid. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

105A. Beginning Vergil: Selections from Aeneid I-VI. (4) Lecture, three hours. Requisite: course 100. Reading of one or more books from first half of Aeneid designed especially for students with only limited experience in reading Latin poetry. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.

105B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 105A. Reading of one or more books from second half of Aeneid. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.


109. Roman Satire. (4) Lecture, three hours. Requisite: course 100. Readings from author(a) of Roman satire, including Horace, Persius, and Juvenal, or related satiric texts. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.


111. Livy. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

112. Tacitus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


Latin

Lower Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

1G. Elementary Latin for Graduate Students. (No credit) Lecture, eight hours. Concurrently scheduled with course 14. No grading.
116. Roman Novel. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of either Petronius’ Satyricon or Apuleius’ Metamorphoses and development of genre of prose novel in antiquity. May be repeated for credit with change in author and text. S/P or letter grading.

117. Sallust. (4) Lecture, three hours. Requisite: course 100. S/P or letter grading.

118. Seneca. (4) Lecture, three hours. Requisite: course 100. Selection of Seneca’s works read in Latin. S/P or letter grading.

119A. Readings in Roman Prose. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman prose author(s). Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), literary genre (Roman biography, antiquarian learning, or science), and/or theme. May be repeated for credit with topic change. S/P or letter grading.

119B. Readings in Roman Poetry. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman poet(s). Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), epic, lyric, elegy, and/or theme. May be repeated for credit with topic change. S/P or letter grading.


121. Patristic Texts. (4) Lecture, three hours. Requisite: course 100. Readings 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. S/P or letter grading.


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

199. Directed Research in Latin. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. S/P or letter grading.

Graduate Courses

200A-200B-200C. History of Latin Literature (4-4-4). Lecture, three hours. Lectures on history of Latin literature, supplemented by reading of Latin texts in original language. Each course may be taken independently for credit. S/U or letter grading.

201. Roman Epic Tradition. (2 or 4) Seminar, three hours. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus) and attention to literary tradition of epic. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

202A. Seminar: Catullus. (4 or 2) Seminar, three hours. Detailed consideration of entire Catullian corpus. S/U (2-unit course) or letter (4-unit course) grading.

203A. Elegiac Poetry. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

203B. Propertius. (2 or 4) Lecture, three hours. Course 203A is not requisite to 203B. S/U (2-unit course) or letter (4-unit course) grading.

204A-204B. Vergili’s Aeneid. (2 or 4 each) Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

205A. Seminar: Vergili’s Bucolics. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

205B. Seminar: Vergili’s Georgics. (2 or 4) Seminar, three hours. Course 205A is not requisite to 205B. Close reading of Vergil’s texts. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

207. Roman Comedy. (2 or 4) Seminar, three hours. Survey of history of Roman comedy. S/U (2-unit course) or letter (4-unit course) grading.

208. Ovid. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

209. Seminar: Roman Satire. (2 or 4) Seminar, three hours. Detailed study of one individual satirist, with attention to his position in development of satirical genre in Roman literature. Choice of author varies from year to year. Close study of text, of characteristics of writer as social critic and artist, and of contemporary literary and social environment. S/U (2-unit course) or letter grading.


211A-211B-211C. Seminars: Roman Historians. (2 or 4 each) Seminar, three hours. Study of considerable portions of writings of following historians. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 211A. Seminar: Livy. 211B. Seminar: Tacitus. 211C. Seminar: Seneca.

214. Ancient Biography. Roman Lives. (2 or 4) Seminar, three hours. Study of biography in ancient Rome. Literary survey or focused readings on lives of Cornelius Nepos, Suetonius, Tacitus, or imperial chroniclers of 4th century C.E. S/U (2-unit course) or letter (4-unit course) grading.

215. Seminar: Roman Novel. (2 or 4) Seminar, three hours. Works such as Petronius’ Satyricon and Apuleius’ Metamorphoses: study of literary problems. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

216. Roman Rhetoric. (2 or 4) Seminar, three hours. Close study of one rhetorical text (e.g., Rhetorica ad Herennium, Orator de oratore, Seneca’s Controversiae or Suasaorii, Quintilian’s Institutiones), with attention to its place in rhetorical tradition. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

220C. Cicero’s Orations. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221A. Cicero’s Philosophical Works. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221B. Cicero: De Natura Deorum. (2 or 4) Lecture, three hours. Course 221A is not requisite to 221B. S/U (2-unit course) or letter (4-unit course) grading.

222. Seminar: Roman Stoicism. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

223. Lucretius. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

224. Seneca. (2 or 4) Seminar, three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

229. Latin Literature of Medieval Europe. (2 or 4) Seminar, three hours. History and characteristics of popular Latin; its development into early forms of Romance languages. S/U or letter grading.

232. Vulgar Latin. (2 or 4) Lecture, three hours. Close study, with attention to literary and historical background, of work of one or several poets who flourished between death of Ovid and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

236. Late Latin Prose. (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several prose authors who flourished between death of Tacitus and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

238. Ovid. (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several poets who flourished between death of Ovid and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

240. History of Latin Language. (2 or 4) Lecture, three hours. Development of Latin from earliest monuments until its emergence in Romance languages. S/U or letter grading.


245. Neo-Latin. (2 or 4) Seminar, three hours. Preparation: at least two upper division Latin courses. Requisite: course 100. Survey of texts by one or more authors from Renaissance to present, written on related topics. S/U or letter grading.

249. College Teaching of Latin. (2) Seminar, to be arranged. Preparation: appointment as teaching assistant. Methodology of instruction in conjunction with classroom practice. May be repeated for credit. S/U grading.

259. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

267. Study for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 6) Tutorial, to be arranged. S/U grading.


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communication studies

college of letters and science

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The major in Communication Studies is an interdisciplinary curriculum leading to a Bachelor of Arts degree. It seeks to provide students with a comprehensive knowledge of the nature of human communication, the symbol systems by which it functions, the environments in which it occurs, its media, and its effects. Employing critical and empirical approaches, the major draws its resources from the social sciences, humanities, and fine arts. Four areas of focus are offered: communication technology and digital systems, interpersonal communication, mass communication and media institutions, and political and legal communication.

**Undergraduate Study**

**Communication Studies B.A.**

Students fulfilling the major in Communication Studies must complete the seven required lower division courses and a minimum of 11 upper division courses as set forth below. Enrollment in the major is limited. Admission to the major is by application to the committee in charge. Applications are available at http://www.commstudies.ucla.edu to regularly enrolled UCLA students during Spring Quarter.

**Preparation for the Major**

Students are encouraged but not required to complete as many lower division preparation for the major courses as possible before admission to the program.

**Required Lower Division Courses:** Communication Studies 1, 10, one course selected from Anthropology 33, Communication Studies M70, Linguistics 1, or Sociology 24, one statistics course from Economics 41, Statistics 10, or 11. Three additional courses must be selected from Political Science 40, Psychology 10, Sociology 1, and Economics 1 or 5 or Political Science 30.

**Transfer Students**

Transfer applicants to the Communication Studies major with 90 or more units must complete at least four of the following seven lower division required courses: Communication Studies 10 or one interpersonal communication and one mass communication course, one public address course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or macroeconomics or political economy. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

Students must complete 11 upper division courses as follows:

**Required Core Courses:** Communication Studies 100, 150.

**Required Area Courses:** A total of eight courses from the following four areas, including at least one core course in each area:


- **Political and Legal Communication** — Core courses: Communication Studies 101, 160, M161, 162, 170; elective courses: Communication Studies 102, 138, 139, 163, 164, 167, 168, 171, M172, 174, M176, 177, 178, 186B, 191D, Political science M141A, 141B (or Sociology 133), 141C, 141E.

**Required Practicum Course:** One course from Communication Studies 102, 103A, 103B, 104, 111, 116, M117, 139, 160, or M176.

**Honors Program**

The departmental honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis. To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.6 or better in upper division coursework in the major and an overall GPA of 3.3 or better in all completed University coursework, (3) complete Communication Studies 198A, 198B, and 198C, and (4) produce a completed satisfactory honors thesis (as determined by a recommendation of their thesis adviser and final approval by the department chair). Consult the student affairs officer for further information.

**Computing Specialization**

Majors in Communication Studies may select a specialization in Computing by (1) satisfying all the requirements for a bachelor's degree in the major, (2) completing Program in Computing 10A and 10B, and (3) completing four courses (at least one of which must be in Communication Studies) from Communication Studies 151, 154, 158, Program in Computing 10C, 20A, 20B, 40A. Courses need to be completed with a grade of C- or better in each course and a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Counseling Office). Students graduate with a bachelor's degree in communication studies and a specialization in Computing.

**Communication Studies Lower Division Courses**

1. **Principles of Oral Communication.** (4) Lecture, four hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Examination of foundations of communication and public speaking. Consideration of number of basic theories related to study of communication and development of skills to enable composition and delivery of speeches in accordance with specific rhetorical concepts. Improvement of ability to analyze, organize, and critically think about communicative messages while becoming better equipped to articulate ideas. P/NP or letter grading.

1A. **Public Speaking for Nonnative Speakers.** (4) Lecture, four hours. Designed for nonnative speakers of English to increase fluency and vocabulary while improving presentation skills, language usage, reasoning, style, and delivery. Conversation and pronunciation practice. Focus on theory and practice of public speaking, including selection of content, organization of ideas, language, and delivery. Practice in extemporaneous and manuscript speaking. Critical analysis of speeches in both contemporary and historical settings. Special emphasis on group discussions, evaluations, practice of both public and private speaking skills. Offered in summer only. P/NP or letter grading.

1B. **Learning American English and Culture from Movies.** (4) Lecture, four hours. Advancement of students' fluency in conversational English while increasing their awareness of American popular culture. Primer on American-style colloquial English and nuances of contemporary customs and values offered through guided immersion in popular cinema. Offered in summer only. P/NP or letter grading.

1C. **Inside Hollywood with Hollywood Insiders.** (4) Lecture, three hours. Survey of historical and cultural traditions in American entertainment industry, with focus on questions of policy and development and how they have shaped contemporary American film and...
television. Examination of historical and policy issues, with guest lectures on current status of film and television. 10. Introduction to Communication Studies. (5) Lecture, four hours; discussion, one hour. Introduction to fields of mass communication and interpersonal communication. Study of modes, media, and effects of mass communication, interpersonal processes, and communication theory. Letter grading.

10A. Production of Multimedia Software. (4) Lecture, three hours; laboratory, one hour. Description of what goes into multimedia software program; discussion of how people interact with 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.

M70. Origin of Language. (5) Same as German M70 and Indo-European Studies M70.) Lecture, three hours; discussion, one hour. Theoretical and methodological approaches to origin of language. Topics include evolutionary theory, evolution of man, how language is organized in brain, and science of language, including physiology of speech, phonetics, and conversation. Letter grading.

88. Sophomore Seminars: Communication Studies. (4) Seminar, three hours. Limited to maximum of 20 lower division students. Readings and discussions designed to introduce students to current research in discipline. Culminating project may be required. P/NP or letter grading.

Upper Division Courses

100. Communication Theory. (4) Lecture, four hours. Prerequisites: Communication Studies M100 or Linguistics M101 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 process and constituents of communicative act. P/NP or letter grading.

101. Freedom of Communication. (4) Lecture, four hours. Analysis of legal, political, and philosophical issues entailed in right of free expression, access to audio and visual media, and information. Study of important court decisions governing freedom of expression in U.S. P/NP or letter grading.


103A-103B. Forensics. (4-4) Lecture, four hours. Study of functional communication in conflict and couples and families, including an in-depth examination of roles and relationship processes to individual psychological, pathological, or sociopolitical factors (e.g., separation and divorce). P/NP or letter grading.

111. Psycholinguistics and Communication. (4) Lecture, four hours. Examination of various forms of nonverbal communication conveyed by different culture groups. P/NP or letter grading.

117. Negotiation. (4) Formerly numbered 117.) (Same as Psychology M117B.) Lecture, three hours. Study of use of negotiation in interpersonal communication and conflict resolution. Topics include the process of negotiation, strategies used in negotiation, and the role of negotiation in the resolution of conflict. Letter grading.

118. Language and Music. (4) Lecture, three hours. Cognitive science exploration of structure and evolution of language and music and their relationships to communication, cognition, and culture. P/NP or letter grading.

119. Voice and Its Perception. (4) Lecture, four hours. Focus on how human voice conveys information about identity of speakers, physical characteristics, personality, and emotional state, and on how listeners utilize these cues to make judgments about speakers. Letter grading.

120. Group Communication. (4) Lecture, four hours. Examination of group communication from perspectives of evolutionary psychology, communications, and psycholinguistic theories. Focus on the evolution of communication, ingroup and outgroup dynamics, gossip, music improvisation, and conversational behavior. P/NP or letter grading.

121. Talk and Mass Communication. (4) Lecture, three hours. In recent years there has been a change in broadcast news and public affairs programming. News was once packaged and presented to audiences by journalists. But increasingly news is organized around spontaneous interpersonal encounters between some combination of journalists, public figures, and ordinary citizens. Examination of interactive forms, with emphasis on news interviews, presidential press conferences, and political speeches before live audiences, from standpoint of their historical development and consequenc es for journalism, political communication, and public sphere. Primary focus on inner workings of each form of talk — social norms and practices that organize participation and that distinguish forms of broadcast talk from one another and from ordinary conversation. Letter grading.

122. Promoting Dialogue between Diverse Worlds. (4) Lecture, three hours. Exploration of issues related to management of conflict between major areas of world. Focus on how language and cultural differences affect communication, role of power in conflict, and political context. Communication approaches based on nonviolence and management of moral conflict offered as alternatives to clash of civilizations. Letter grading.

123W. Talk and Body. (5) (Same as Anthropology M123W.) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 30. Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with focus on both production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinematics), with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

124. Psychology of Language and Gender. (4) (Formerly numbered M124.) Lecture, three hours. Examination of current topics at intersection of gender and language. Topics include sex differentiation in language; cross-cultural bias in lexicon and usage; sex differences in lexicon, syntax, phonology, and nonverbal behavior; development of sex-differentiated language in children; women’s and men’s language in various racial/ethnic/class/sexual preference groups; and conversational interaction. Letter grading.

125. Talk and Social Institutions. (4) (Same as Sociology CM125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of major institutional sites in contemporary society. Setting varies but may include emergency services, political offices, hospitals, corporate oratory. P/NP or letter grading.

126. Evolution of Interpersonal Communication. (4) Lecture, four hours. Examination of current issues in interpersonal communication from perspectives of evolutionary and cultural theory. Topics include coevolution of signaler and receiver adaptations, nonverbal communication, courtship behavior, miscommunication between sexes, implied language use, and nonverbal behavior. Letter grading.


128. Play and Entertainment. (4) Lecture, three hours. Entertainment is significant component of both interpersonal and mass communication. Examination of evolutionary history, cognitive mechanisms, and social dimensions of play and entertainment, as well as their possible pedagogical effects. Letter grading.

129. Gaming Mind. (4) Lecture, three hours. Exploration of various aspects of online computer games that are becoming increasingly popular and technical sophistication, with focus on how people learn from online computer games, how they learn it, and whether learning is potentially useful. Letter grading.

130. Cultural Factors in Interpersonal Communication. (4) Lecture, three hours. Study of cultural factors as they affect quality and processes of interpersonal communication; exercises in participation, analysis, and criticism of internecine and intercultural communication in small group configuration. P/NP or letter grading.
131. Culture versus Media? (4) Lecture, three hours. Interpretation of meaning of cultural texts, analysis of representation of social and cultural groups, and consideration of how audiences provide their own meanings and uses to such texts, with focus on media in relation to issues of globalization, consumption, class, race, gender, youth, and sexuality. Letter grading.


133. Decoding Media Strategies. (4) Lecture, three hours. Today's mass media are thriving business, central part of cultural identity, and vital component of democracy. How do these different and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of entertainment and mass culture, practice of propaganda, and changing patterns of media ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

134. Organizational Communication. (4) Lecture, three hours. Introduction to issues and literature related to communication in organizations. Organizational communication concerns theories (explanations) of organized behavior, conceptions of organizations, study of bureaucracy and its alternatives, metaphors for organizations, communication and conflict, and strategic communication in organizations. Focus on behavior of individuals and teams within organizations. Letter grading.

M135. Narratives in Mass Communication. (6) (Same as Honors Colloquium M135.) Seminar, four hours. Examination of narrative as primary function of mass media, beginning with social, psychological, cultural, and economic functions of storytelling and basic elements of narrative, then applying these to study of film, television, and print media. P/NP or letter grading.

136. Media Portrayals of Gays and Lesbians. (4) Lecture, three hours. How mass media have portrayed gays and lesbians and why. Media’s depiction, portrayal, and handling of homosexuality, with particular focus on how gays and lesbians have been negatively stereotyped, portrayed unrealistically, and often not portrayed at all. Exploration not only of how gays and lesbians have been represented, but also why certain portrayals have tended to dominate. P/NP or letter grading.

M137. Transnational Bollywood. (4) (Same as Asian American Studies M172C.) Lecture, three hours. Study of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to gender, sexuality, race, and economic liberalization in South Asia, as well as across South Asian communities in North America, U.K., and Africa. Examination of how complex relationships between Bollywood and transnational South Asian diasporas enable us to better understand South Asian American communities. P/NP or letter grading.

138. Political Marketing. (4) Lecture, three hours. Examination of theory and practice of political marketing in U.S. and impact of such marketing on democracy to prepare students to critically analyze and evaluate communication that advances political goals, as well as to become more equipped to disseminate such messages. P/NP or letter grading.


140. The Power of Persuasive Communication. (4) Lecture, four hours. Dynamics of communication are examined to influence human conduct; analysis of structure of persuasive discourse; integration of theoretical materials from relevant disciplines of humanities and social sciences. Letter grading.

141. Films of Persuasion: Social and Political Advocacy in Mass Society. (4) Lecture, four hours. Films often provide commentary about public issues. Examination of how films participate in audiences about history, society, and politics. Critical evaluation of these works to understand power and limitations of films as social persuasion. Letter grading.

142. Communication and Organizations. (4) Lecture, three hours. Knowledge, skills, and abilities needed for students to understand and address various components of diversity in organizations, with emphasis on understanding organizational policies, initiatives, staff needs, staff development, and social interactions. Students learn to think critically about various organizational situations. Design to give students enhanced diversity background and perspectives related to organizations. Exploration of such areas as power, gender, race, social class, sexuality, ability, and age. Examination of relationship between these areas to organizational communication concepts such as assimilation and socialization, power, culture, employee conflict, and relationships. P/NP or letter grading.

143. Rhetoric of Popular Culture. (4) Lecture, three hours. Rhetorical approach to study of U.S. popular culture. Examination, both at theoretical level and through specific case studies, of ways in which popular cultural texts perform rhetorically to influence political and social structures of everyday life. How do particular artifacts or communicative texts constitute source for (re)negotiation of cultural meanings as well as greater understanding of ways language functions as vehicle for human action? Letter grading. M144A-M144B. Conversational Structures I, II, (4- (4) (Same as Sociology M124A-M124B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. M144A. Introduction to some structures that are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structures with limited expansions. M144B. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

145. Situation Comedy and American Culture. (4) Lecture, three hours. Historical analysis of sitcom genre from its beginning in late 1940s to present. Investigation of how sitcoms have influenced American life and culture and how American life and culture have influenced sitcoms. Issues of family, race and ethnicity, class and gender, political culture. P/NP or letter grading.

146. Evolution of Mass Media Images. (5) Lecture, four hours; discussion/laboratory, one hour. Analysis of evolutionary psychology. Images selected by media portraying women and/or minorities in entertainment, advertising, and informational communication. Letter grading.

M147. Sociology of Mass Communication. (4) (Same as Sociology M176.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.


M149. Media: Gender, Race, Class, and Sexuality. (8) (Same as Gender Studies M149 and Labor and Workplace Studies M149.) Lecture, five hours; discussion, four hours. Honors, limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of theories and research on the role of media in the representation of gender, race, and class. Letter grading.

150. Methodologies in Communication Research. (5) Lecture, four hours; discussion, one hour. Emphasis on practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.


153. Media and Aggression against Women. (4) (Same as Women’s Studies M154.) Seminar, four hours. Social scientific study of intersection between mass media and men’s aggression against women. Particular consideration of sexual aggression, pornography, and characteristics of aggressive men. Analysis of interaction between nature and nurture. Letter grading.

154. Social Communication and New Technology. (4) Lecture, four hours. Internet’s digital core was designed for military command. Yet emerging network will gradually co-opt to perform communicative functions such as gossip, dating, news, entertainment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.


156. Social Networking. (4) Lecture, three hours. Investigation of how new online social networks have facilitated interpersonal interactions for knowledge sharing, romance, business, politics, and entertainment. Critical investigation of work with social networking websites (e.g., Facebook, MySpace, Friendster, You Tube) through social network analysis and other social science research methods. P/NP or letter grading.

157. Celebrity, Fame, and Social Media. (4) Lecture, three hours. Analysis of how following personal lives of media-created celebrities impacts self-esteem, connectedness, and personal relationships from cultural studies and social sciences perspectives, and how entities cultivate celebrity for financial gain. Topics include celebrity gossip and privacy, news sharing, public relations, and impact of social media on fandom/image construction, and management. P/NP or letter grading.

158. Revolutions in Communication Technology. (4) Lecture, four hours. Study of role assigned to technology in theories of communication. Examination of current information age and its effects in communication technology throughout history. Survey of origins and societal implications of major development, starting with emergence of speech itself. Letter grading.


160. Media and the Rise of the Information Society. (4) Lecture, three hours. Examination of how current information age and advance in communications technology (ICTs) are changing human and social structures, story structures, topical sequences, and overall structural organization of single conversations.
160. Political Communication. (4) Lecture, four hours; discussion, one hour. Study of nature and function of political speech. Analysis of contemporary and historical communications within established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

M161. Electoral Politics: Mass Media and Elections. (4) Same as Political Science M141D. Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Assessment of manner in which Americans’ political beliefs, choices, and reactions 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 media in American political process. P/NP or letter grading.

162. Presidential Communication. (4) Lecture, three hours. Examination of historical evolution of presidential communication environment, resources, and strategies, as well as how presidential campaign communication has evolved over time and implications for how presidents govern. Letter grading.

163. Public Diplomacy: Communicating U.S. Ideas to Foreign Citizenry. (4) Seminar, four hours. Exploration of the nature of public diplomacy — its concepts, power, and principles in connection with U.S. efforts to project ideas to foreign publics in 20th and 21st centuries. Discussion of intersection of foreign relations, communication, democracy, and cultural nationalism, and other forms of communication. Letter grading.

164. Entertainment Law. (4) Lecture, three hours. Various issues in entertainment industry, with primary focus on business, legal, and free speech-related concepts. P/NP or letter grading.

M165. Agitational Communication. (4) (Formerly numbered 165.) (Same as Labor and Workplace Studies M175.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitational communication as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and technique and content of their communications. Letter grading.

166. Communicative Dynamics in Film and Television Production. (4) Lecture, four hours. Identification of how motivation and creativity interact with business interest, research, and policies in producing entertainment for media market. Letter grading.

167. Sex, Politics, and Race: Free Speech on Campus. (4) Lecture, three hours. Focus on concept of freedom of expression on campus during postseconde ary era; campus and student government, contracts and agreements as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and technique and content of their communications. Letter grading.

168. Free Speech in Advertising. (4) Lecture, three hours. Exploration of First Amendment and commercial speech within context of product and service advertisement (e.g., vice products such as tobacco, alcohol, illegal drugs, gambling; pharmaceutical drugs; and political advertisements). Examination of when, where, and how commercial speech can be regulated by federal and state statutes that affect students’ and teachers’ “ability to speak on and off campus. Discussion of harassment and campus speech codes, campus demonstrations, publications, student conduct regulations, and restrictions on displays of art and academic freedom. P/NP or letter grading.

169. Critical Vision: History of Art as Social and Political Commentary. (5) (Same as Honors Collegium M179.) Seminar, three hours. Study of tradition of visual arts (painting, graphic art, photography, sculpture) for social and political commentary. P/NP or letter grading.


171. Theories of Freedom of Speech and Press. (4) Lecture, three hours. Exploration of relationship between freedoms of speech and press and values of liberty, self-representation, truth, dignity, respect, justice, equality, association, and community. Study of significance of these values examined in connection with issues such as obscenity, defamation,アクセス to medical, commercial, sexual, entertainment, and government speech. P/NP or letter grading.

172. Free Speech in Workplace. (4) Formerly numbered 172.) (Same as Labor and Workplace Studies M172.) Lecture, three hours. Focus on concept of freedom of expression in workplace and how First Amendment, case law, and federal and state statutes affect one’s ability to speak at work. Conflict between desire to speak freely at work as well as means and limits of academic freedom. P/NP or letter grading.

173. Communicating Complex Policy. (4) Lecture, three hours. Various media offer different comparative advantages/disadvantages for transmission of messages. Specific kinds of print, video, and new media offer opportunities and problems when content is complex and/or scholarly. Development of media-complexity typology. Examination of scholarly works of famed philosophers, sociologists, and communicators. Letter grading.


175. Criticism and Public Arts. (4) Lecture, four hours; discussion, one hour (when scheduled). Introduction to methods and problems of criticism in public arts. Study of several types of critical methods: formalist, social, historical, psychoanalytic, and aesthetic criticism. Topics include art and criticism, aesthetic beauty, genre and resources of film, television, theater, and public discourse, variety of critical methods, problems of criticism, and criticism’s role in democratic society. P/NP or letter grading.

176. Visual Communication and Social Advocacy. (4) (Formerly numbered 176.) (Same as Labor and Workplace Studies M176.) Lecture, four hours. Visual communication reaches diverse audiences in community, social, and political contexts. Topics, posters, murals, and documentary photography have had powerful world impact. Survey of all four genres of visual communications as features of modern mass media. Letter grading.

177. Libel and Freedom of Expression. (4) Lecture, four hours. Intensive study of law of defamation and its relationship to free flow of information in democracy. Examination of rationale, scope, and effects of libel laws. Topics include application of libel laws to public official, public figure, and private plaintiffs and media and nonmedia defendants; group libel, privileged libel, and libelous fiction. Letter grading.


179. Images of U.S. (4) Lecture, four hours. Awareness of international role of U.S. necessitates ongoing understanding of how our nation is perceived by others. Examination of roots of U.S. images in minds of people abroad. Analysis of influences that contribute to images and stereotypes in which images affect practical matters. P/NP or letter grading.

180. Politics of Censorship. (4) Lecture, two hours; simulation teaching, three hours. Prerequisite: course 101. Examination of process and substance of debates over government and private censorship by having students become active participants in term-long simulated battle over current issue such as book censorship, pornography, or UNESCO's proposed “New World Information Order.” P/NP or letter grading.


182. Media and Mind. (4) Lecture, three hours. Investigation of news persuasion and entertainment appeal through three intersecting approaches: study of cognitive and neurological brain processes, focused attention on personal sensory and imagined experiences, and hands-on media analysis. Topics include perception and imagination in television news, narrative, and dreams, construct of self, and play as implicit learning. Students collaborate with each other to assemble variety of media critiques of recent international and domestic news events. P/NP or letter grading.

185. Field Studies in Communication. (2 to 4) Lecture, two hours. Designed for juniors/seniors. Fieldwork in communication. Students participate in two-hour seminar sessions and spend seven hours in approved community settings each week for each 2 units of credit. May be taken for maximum of 4 units per term. P/NP grading.

186. Mass Media, Public Opinion, and Foreign Policy. (4) Lecture, four hours. Investigation of various means through which public opinion (the public’s opinion as the influence foreign policy. Development of coherent view of interaction between media, public opinion, and politicians with respect to foreign affairs. Letter grading.

187. Ethical and Policy Issues in Institutions of Mass Communication. (4) Lecture, three hours. Intensive examination of ethical and policy issues arising from interaction of media institutions (print, film, broadcasting, and other technologies) and societal institutions (Congress, federal agencies, courts, Presidency, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

188A. Variable Topics in Mass Communication and Media Institutions. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188B. Variable Topics in Interpersonal Communication. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

188C. Variable Topics in Communication Technology and Digital Systems. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

188D. Variable Topics in Political and Legal Communication. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

191A. Variable Topics Research Seminars: Mass Communication and Media Institutions. (4) Seminar, three hours. Research seminars on selected topics in mass communication and media institutions; research and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Interpersonal Communication. (4) Seminar, three hours. Research seminars on selected topics in interpersonal communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191C. Variable Topics Research Seminars: Communication Technology and Digital Systems. (4) Seminar, three hours. Research seminars on selected topics in communication technology and digital systems. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.
COMMUNITY HEALTH SCIENCES
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Elizabeth D’Amico, Ph.D.
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Field Program Supervisor
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Scope and Objectives
The Department of Community Health Sciences focuses on health as influenced by social and community structure. A central concern is how health-related behaviors of individuals are influenced by and interact with conditions in the social, cultural, physical, and biological environment. Emphasis is on understanding, evaluating, and discouraging health-damaging behaviors and facilitating health-promoting behaviors. The curriculum integrates basic and applied approaches to address public health problems in the community, using the key tools of assessment, planning, and evaluation.

The department offers schoolwide professional (M.P.H. and Dr.P.H.) and academic (M.S. and Ph.D.) degree programs. Graduates of the professional programs assume positions in the planning, administration, and evaluation of public health programs and policies in the U.S. and abroad that have as their objectives the maintenance and improvement of the health of individuals, families, communities, and populations. Graduates of the academic programs assume teaching, research, and managerial positions in universities, government agencies, nongovernmental organizations, international health agencies, and research centers.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Community Health Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Community Health Sciences and a Master of Public Health for Health Professionals (M.P.H.-HP) degree.

Community Health Sciences
Lower Division Courses
60. Intergroup Dialogue: Peer Dialogue. (2) Seminar, two hours. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Student participation in semi-structured face-to-face meetings with students from other social identity groups to learn from each others’ perspectives, read and discuss relevant reading material, and explore their own and other groups’ experiences in various social and institutional contexts. Exploration of ways of taking action to create change and bridge differences at interpersonal and social/community levels. P/NP or letter grading.

90. Aging Frontier: Public Health Perspective. (4) 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.

91. Peer Health Counselor Training. (4) Lecture, four hours. Limited to students in Peer Health Counselor Program. Analysis of student healthcare issues as related to campus healthcare delivery system and to healthcare consumer, identification of health needs, determination of appropriate resources, delivery of preventive and self-care education, and delineation of peer health counselor’s role. P/NP or letter grading.

Upper Division Courses
100. Introduction to Community Health Sciences. (4) Lecture, four hours. Limited to students in Public Health minor and graduate students. Introductory course to provide non-Community Health Sciences M.P.H. students and qualified undergraduate students with broad and comprehensive overview of concepts, empirical research, and public health practice in community health sciences, with emphasis on social context and determinants of population health and princi-
plies of planning interventions to protect and improve public health. Ways to define and measure health and disparities in health and health outcomes, including socioeconomic status, race/ethnicity, gender, and age. Social and behavioral theories of health-related behavior change, health promotion strategies, and public policy. Case studies of evidence-based health promotion programs provided. Letter grading.

130. Nutrition and Health. (4) Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curriculum. P/NP or letter grading.

132. Health, Disease, and Health Services in Latin America. (4) Lecture, three hours; laboratory, one hour. Preparation: one biology course, with emphasis on epidemiology, health administration, health, disease, and health services in Latin America, behavioral determinants of health, and health disparities. Letter grading.

181. Campus/Community Health and Wellness Promotion: From Theory to Practice. (4) Lecture, two hours; discussion, two hours. Limited to juniors/seniors. Theory, training, and experience in health, wellness promotion and health/wellness education in selected campus communities. Participation in supervised small-group program planning project. Letter grading.

187A-187B. Introduction to Interventions for At-Risk Populations. (4-4) Lecture, three hours; committee meetings/community service, two to six hours. Course 187A is requisite to 187B. Designed for juniors/seniors. Health and social needs/services from primarily public health perspective, drawing on related academic/professional disciplines. Community-based service-learning to enhance knowledge of concepts covered. As part of service portion, students trained as caseworkers and committee members. Letter grading.

195. Community or Corporate Internships in Community Health Sciences. (4-4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Further supervision provided by public health organization for which students are interned on regular basis with instructor and provide regular reports of their experience. May be repeated for credit. Individual contract with supervising placement sponsor required. P/NP or letter grading.

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

Graduate Courses

200. Global Health Problems. (4) Lecture, two hours; discussion, two hours. Overview of health profile of world in the century. Global health problems and methods by which they have been dealt in context of Alma Ata goal of health for all by 2000. Letter grading.


208. Introduction to Dempographic Methods. (4) Same as Biostatistics M208, Economics M208, and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic indicators.

210. Community Health Sciences. (4) Lecture, three hours. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in health of populations, relationship 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; outside assignments, eight hours. 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. 211A. Requisite: course 211A; 211B. Requisites: course 210; 211A, and Biostatistics 100A or Epidemiology 100.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours; computer assignments, two 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 software analysis of large-scale survey data using various statistical techniques. Letter grading.


219. Theory-Based Data Analysis. (4) Seminar, four hours. Enforced requisites: Biostatistics 100A, 100B, 406. Translation of theory into data analytic plan, its application to real data, and interpretation of results obtained through multivariate analysis. Analysis of qualitative data using range of multivariate techniques, such as linear multiple regression and logistic regression. Analysis of theoretical problem using student quantitative data or public use data. Letter grading.

223. Socialism and Public Health: Social Epidemiological Approaches. (4) Seminar, two hours; discussion, one hour. Requisite: Biostatistics 100B. Integration of social epidemiological methods and critical appraisal of study of health and public health, with focus on conceptualizing and testing the hypotheses of health determinants of health. (3) Developing critical self-consciousness to better understand how sociocultural factors influence health and disease, and how to support the development and implementation of health policies and programs to improve health and reduce health disparities. Letter grading.

225. 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. Construction of four major constructs: politics, age, ethnicity, gender, and socioeconomic status. Description of epidemiological patterns and discussion of the social meaning of these constructs. Letter grading.

226. Understanding Fertility: Theories and Methods. (4) Same as Sociology M206.) Lecture, three hours. Preparation: one formal or social demography course and one course in Demography. Development and application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding fertility rates and differentials. Letter grading.

227. Understanding Fertility: Theories and Methods. (4) Same as Sociology M206.) Lecture, three hours. Preparation: one formal or social demography course and one course in Demography. Development and application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding fertility rates and differentials. Letter grading.

M224. Writing for Publication in Public Health. (4) Seminar, four hours. Pre requisites: Rhetoric 219, two graduate biostatistics courses, one graduate epidemiology course. Development of skills for advanced doctoral students in producing peer-review-quality research papers, with focus on theoretically informed empirical research papers. Examination of other types of manuscripts (e.g., reviews) included. Letter grading.


M226. Policy and Public Health Approaches to Violence Prevention. (4) Lecture, four hours. How policies relate to violence and development of skills to transmit this knowledge. Examination of wide range of policy topics and how each might be associated with reduction/increase in violence/violent injury. Letter grading.


M228. Race and Ethnicity as Concept in Practice and Research. (4) (Same as Asian American Studies CM228.) Lecture, three hours. Introduction to cross-cultural methodologies in American and U.S. health care systems paradigms to facilitate designing culturally based public health programs and train culturally competent practitioners. Letter grading.

M229. Social Determinants of Nutrition and Health. (4) Lecture, three hours; discussion, one hour. Preparations for one basic nutrition course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic disadvantage and health. Discussion of examples of successful efforts to improve access to healthy foods and/or limit access to unhealthy foods. Exploration of methods for assessing social capital and food-related aspects of neighborhood environment. Letter grading.


M230. Family and Sexual Violence. (4) Lecture, three hours; community, three to four hours. Examination of rape, incest, and spouse and elder abuse. Presentations 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.

M231. Maternal and Child Nutrition. (4) Lecture, four hours. Nutrition of mothers, infants, and children in countries at various levels of socioeconomic development; measures for prevention and treatment of protein-energy malnutrition; interaction between nutrition and mental development; impact of ecological, socioeconomic, and cultural factors on nutrition, nutrition education, and service. Letter grading.

M232. Determinants of Health. (4) (Same as Health Policy and Management CM232.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for social, economic, environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.

M233. Hunger and Food Insecurity as Public Health Issues. (4) Lecture, three hours. Designed for graduate students. Discussion of hunger and food insecurity in historical and international perspectives, including measurement and identification of vulnerability, prevention, and options for relieving acute food shortage. Letter grading.

M234. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Health Policy and Management M255.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary perspectives: biochemistry, physiology, and current state of preventive and therapeutic interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

M235. Influence of Social and Physical Environment on Racial Health Disparities. (4) Seminar, three hours. Preparations: at least one biostatistics or epidemiology course. Limited to graduate students. Examination of how community stressors and neighborhood resources may contribute to health disparities. Discussion of multiple factors that contribute to environmental injustice and their potential solutions. Do health disparities arise because minorities and low-income populations live in harmful environments? Is relationship between environment and health disparities merely one of potential exposure to chemical/physical hazards, or are there psychosocial mechanisms at community level that act above or beyond effects of physical environment? Letter grading.

M236. Managing Delaware Public Health. (4) Lecture, four hours. Exploration of numerous areas of public health impacted by drug use; public health options for controlling associated problems; positive and problematic aspects of drug use in terms of costs and benefits; variety of information resources such as scientific literature, surveys, institutional databases, key indicators, key informants, and implications. Letter grading.

M237. Managing Delaware Public Health Perspective. (4) Lecture, four hours. Examination of other types of manuscripts (e.g., reviews) included. Letter grading.

M238. Race and Ethnicity in Public Health: One Basic Nutrition Course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic disadvantage and health. Discussion of examples of successful efforts to improve access to healthy foods and/or limit access to unhealthy foods. Exploration of methods for assessing social capital and food-related aspects of neighborhood environment. Letter grading.

M239. Race and Ethnicity as Concept in Practice and Research. (4) (Same as Asian American Studies CM228.) Lecture, three hours. Introduction to cross-cultural methodologies in American and U.S. health care systems paradigms to facilitate designing culturally based public health programs and train culturally competent practitioners. Letter grading.

M240. Child and Reproductive Health in Communities: Global Environmental Perspective. (4) Lecture, three hours. Required prerequisites: course 100, Epidemiology 100. Limited to graduate students. Examination of global issues of child and reproductive health and the role of environmental factors in interplay with socioeconomic and biological factors. Environmental influences are responsible for one quarter of total burden of disease worldwide, and for more than one third of burden in girls and boys. Most of these are living in resource-poor countries and communities. Discussion of impacts of qualitatively different, and potentially modifiable, factors such as access to safe water or urbanization, as well as environmental contribution to high-burden outcomes in childhood and reproduction. Focus on lower income settings and discussion of relevant population-based approaches to assessment and intervention. Letter grading.

M244. Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Anthropology M263Q, Counseling Psychology 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.


M246. Women’s Roles and Family Health. (4) Lecture, two hours; discussion, one hour. Rapidly changing roles of women throughout world are having important effects on women’s own health and that of their families. Analysis of multidisciplinary research from both developing and industrialized countries to provide basis for in-depth discussion of programmatic and policy implications. Letter grading.

M247. Population Change and Public Policy. (4) Lecture, four hours. Examination of international population change, population-related policies, and public health implications of demographic processes. Letter grading.

M248. Women’s Mental Health. (4) Discussion, three hours. Designed for graduate students. Prevalence of psychological distress and psychiatric disorder among women, with emphasis on impact of social and cultural factors, including gender roles and socialization, stratification and inequality, work and family roles, diagnosis, help-seeking behavior, and treatment. Letter grading.

M249L. Ethical Theory and Application in Public Health. (4) (Same as Health Policy and Management M285.) Lecture, four hours. Requisites: Health Policy and Management 200A, 200B. Introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to ethical issues. How ethics prove student sensitivity to needs of patients, coworkers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

M250. HIV/AIDS and Culture in Latin America. (4) (Same as Latin American Studies M262B.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, including epidemiology, comorbidity, and cultural concerns and community interventions, medical anthropological study of experience of those impacted, and grassroots responses. Letter grading.

M251. Nutritional Epidemiology I. (4) (Same as Epidemiology M254.) Lecture, two hours; discussion/laboratory, one hour. Preparations: introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiologic principles and methods, ranging from food-borne outbreak investigation to evidence-based regulatory assessment of health claims for foods. Experience in actual world of collecting, analyzing, and interpreting data related to nutrition and health or disease outcomes. S/U or letter grading.

254. Intentional Disasters: War and Refugees. (2) Lecture, two hours. Recommended requisites: courses 211A, 211B, 295, Epidemiology 100, one survey methods course. Previous international experience strongly encouraged. Overview of intentional disasters, with focus on technically underdeveloped areas and consequent population migration. Principal focus on health consequences of these events and strategies for response. Letter grading.

M255. Keeping Children Safe: Causes and Prevention of Pediatric Injuries. (2) (Same as Epidemiology M255.) Lecture, two hours. Injuries have been leading killer of children in 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.

M256. Interdisciplinary Response to Infectious Disease Emergencies: Public Health Perspective. (4) (Same as Medicine M256, Nursing M298, and Oral Biology M256.) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas about how human epidemiology problems relate to coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Medicine, and Nursing during weeks two through five. Letter grading.

257. Program Planning in Community Disaster Preparedness. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 211A, 211B, 295. Health education and emergency management principles combined to design, plan, implement, and evaluate community disaster preparedness programs, including needs assessment, identification of target population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.

258. Cooperative Interagency Management in Disasters. (4) Lecture, four hours. Recommended requisites: course 295. Designed for graduate students. Broad overview of how different agencies involved in disaster response work together to handle impacts of mass population emergencies. Identification of role of local, state, and federal governments, nonprofit and private sector organizations, media, and healthcare facilities in disaster responses. Students meet with representatives of different agencies involved in disaster responses and visit one of area's state-of-art emergency management operations facilities. Letter grading.


M263. Social Demography of Los Angeles. (4) (Same as Sociology M263.) Lecture, three hours. Designed for graduate students. Use of city of Los Angeles as a case study to understand major social issues affecting health of elderly in America. Leading gerontological theories and major issues that affect aged, showing how these issues and their distribution influence quality of life. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M264 and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and the Caribbean, with emphasis on indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

265. Imaging and Health Care. (4) Lecture, three hours. Designed for graduate students. Images of aged that students hold, images that serve various professional and commercial interests in society, and images aged students make sense out of their experiences. Letter grading.

270A-270B. Foundations of Community Health Sciences. (4-4) Lecture, four hours. Enforced requisite: course 210. Course 270A is enforced requisite to 270B. Limited to departmental doctoral students. In-depth analysis of theories, methods, and research on which community health sciences are based. Letter grading.


M272. Social Epidemiology. (4) (Same as Epidemiology M272.) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on 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 hypertension, coronary heart disease, and cancer. Emphasis on lifestyles and other socioenvironmental factors associated with chronic diseases. Letter grading.


M275. Health and Illness Behavior. (4) (Same as Sociology M249B.) Seminar, three hours. Designed for graduate students. Seminar discussion based on student responses to readings on medicalization, health/illness discourse and consumerism, and preoccupation with body. SU or letter grading.


277. Advanced Community Health Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Overview educational components of health program, one must assess behaviors and factors influencing health problem. Conceptual, theoretical, and evaluative skills developed and applied in constructing community-based educational program. Letter grading.

278. Work and Health. (4) (Same as Environmental Health Sciences M270.) Lecture, three hours; practice, one hour. Emphasized social and behavioral preparation; graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Exploration of impact of work on physical and psychological health. Emphasis of new interdisciplinary discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stresses can be ameliorated. SU or letter grading.

280. Drugs of Abuse from Neurobiology to Policy and Education. (4) (Same as Neuroscience CM277.) Lecture, four hours. Enforced requisite: Neuroscience 210A. Course open to society. Provides intensive didactic on current neuroscientific basis for understanding substance abuse and blends that material with relevant topics such as epidemiology, co-occurrence, prevention, and public policies, with emphasis on communication of course materials to general public. Letter grading.

281. Capstone Seminar: Health Promotion and Education. (4) Seminar, 90 minutes; discussion, 90 minutes. Enforced requisite: course 210. Current problems and findings in health promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master's project reports completed under faculty supervision. Letter grading.


283. Evidence-Based Health Promotion Programs for Older Adults. (4) Seminar, three hours. Enforced requisite: course 210. Designed to explore sociocultural determinants of health-related behaviors among aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4) Discussion, three hours. Designed for graduate students. Examination of how society shapes mental health of its members and lives of those who have been identified as mentally ill. Group differences (e.g., gender, ethnicity) in health and how it is socially constructed. Letter grading.

285. Aging, Health, and Society. (4) Lecture, three hours; discussion, one hour. General introduction to major social issues affecting health of elderly in America. Leading gerontological theories and major issues that affect aged, showing how these theories and issues influence health status, health promotion, and illness among elderly. SU or letter grading.

286. Doctoral Roundtable in Community Health Sciences. (4) Seminar, two hours. Designed for departmental doctoral students who will enroll every term until they are advanced to candidacy. Interactive learning format focus on research process and social mechanisms in science. May be repeated for credit. SU grading.

M287. Politics of Health Policy. (4) (Same as Health Policy and Management M287.) Lecture, three hours; discussion, one hour. Enforced requisite: course 210, or Health Policy and Management 200A and 200B. Examination of politics of health policy process, including effects of political structure and institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion; and other factors. Letter grading.

288. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 210 or prior social sciences courses. Designed for graduate public health students. Topics include how popular media portray health issues, how people use these media, and impact of these media on health behaviors and perceptions. Strategies to influence or understand media, such as media advocacy, health journalism, media literacy, and entertainment education. Case examples include both domestic and global health issues. Media content analysis, audience research, and assessment of media effects. Letter grading.

M289. Drug Abuse in Pregnancy: Special Focus on Information Dissemination and Learning Secondary Data Sources. (4) Lecture, three hours; discussion, one hour. Special emphasis is placed on key processes. Designed for graduate students. Multidisciplinary seminar combining didactic material on substance abuse in pregnancy, participation in ongoing re-
search, and clinical experience in on- and off-campus settings. Medical, social, economic, and legal issues affecting pregnant, new born, and adolescent couples. Letter grading.

M420. Reproductive Health in Sub-Saharan Africa. (4) Lecture, four hours. Recommended requisite: course 247. Understanding of reproductive health challenges facing sub-Saharan Africa and main programs designed to address them. Topics include family planning, STIs, abortion, adolescents, HIV/AIDS, and refugees. Letter grading.

M428. Child and Family Health Program Community Leadership Seminar. (2) Seminar, two hours. Designed for graduate students. Examination of character and function of health service system; needs and characteristics of community-based organizations (CBOs) and role of leadership in decision-making process involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies that are or should be employed by organizations effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs in Los Angeles meet with students, comment on their practicum experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

M431. Foundations of Reproductive Health. (4) Lecture, three hours. Limited to graduate students. Understanding reproductive technologies and practices is critical for public health students interested in designing programs to address problems such as unwanted pregnancy, family planning, sexually transmitted diseases, and inadequate preventive services. Examination of foundations of reproductive health from medical perspective, with particular attention to implications for public health programs, health services, and policies. Topics include reproductive health problems of male and female reproductive health tracts, methods of birth control, medical and surgical abortion, infertility, maternal care, and sexual violence and trauma. S/U or letter grading.

432. Perinatal Healthcare: Programs, Principles, and Policies. (4) Lecture, three hours; discussion, one hour. Comprehensive examination of perinatal healthcare, including perinatal epidemiology and 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 tables) 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.

435. Seminar: Advanced Issues in Women's Health. (4) Seminar, three hours. Preparation: at least one prior women's health course, one to two biostatistics courses, one research methods course. Provides more advanced and in-depth understanding of ways in which scientists “know” and considerations of women's place in scientific discourse. Examination of selected cases of studies as starting point for discussion. Letter grading.

M436A-M436B. Child Health, Programs, and Policies. (4-4) (Same as Health Policy and Management M449A-M449B.) Lecture, four hours. Requisite: Health Policy and Management 100. Course M436B 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. Exploration of community and environmental health and health services issues that are present along U.S.-Mexico and California borders. Integrated within public health framework are issues and mitigation of national security and disaster/terrorist risks and hazards. Letter grading.

441. Planning and Evaluation of Global Health Programs. (4) Lecture, four hours. Theory, guidelines, and team exercise for planning community health/family planning projects in U.S. and in developing countries. Phases include community needs identification; goal setting; budget and work plan development; funding; staffing; evaluation design; data collection and analysis; and project presentation. Letter grading.

447. Health and Social Context in Middle East. (4) Lecture, four hours. Recommended preparation: background in Islamic or Middle Eastern studies. Requisite: course 200 or 231 or 434A. Current health issues and problems of countries in Middle East and implications for socioeconomic development. Review of economic, demographic, and cultural variation of region to provide background for discussion of trends and patterns of health and nutritional status of population in area. Letter grading.

448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours; field visits. Preparation: one semester sciences course and/or nutrition program experience. Nutrition programs and policies in U.S. and developing countries compared and contrasted. Analysis of role of major international, government, and nongovernmental agencies. Emphasis on meeting needs of vulnerable populations. Letter grading.

449. Nutrition and Chronic Disease. (4) Lecture, four hours. Preparation: one graduate or undergraduate course each in chemistry or biochemistry, physiology, and nutritional sciences, or M.D. degree. Advanced-level seminar on nutritional needs of healthy individuals in current knowledge of role of nutrition in disease prevention, nutritional and metabolic responses to disease, and role of nutritional therapy in management of disease. Letter grading.

451. Post-Disaster Community Health. (4) Lecture, four hours. Preparation: one graduate or undergraduate course each in chemistry or biochemistry, physiology, and nutritional sciences, or M.D. degree. Advanced-level seminar on nutritional needs of healthy individuals in 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.

452. Management of Food and Nutrition in Major Emergencies. (4) Lecture, three hours. Designed for second-year master’s or doctoral students interested in humanitarian relief. Basic principles required to design rational and cost-effective food and nutrition emergency relief approaches and programs. Letter grading.

CM470. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Environmental Health Sciences M471 and Urban Planning M470.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative interventions. Concurrently scheduled with course CM170. S/U or letter grading.


477. Health Equity, and Sexual Minority Populations. (4) Lecture, two hours; discussion, one hour. Limited to graduate students. Examination of health disparities affecting sexual minority populations, category that includes lesbians, gay men, bisexuals, and transgender (LGBT) persons. Use of Healthy People 2010 Companion Document for LGBT Health to outline key health issues and national recommendations for achieving reductions in each area. Discussion of considerations for providing clinical care and public health practice in this population, unique social and contextual factors influencing LGBT health, and methodological issues for conducting research among LGBT persons. S/U or letter grading.

482. Practicum: Community Health Sciences. (4) Discussion, two hours; fieldwork, up to 20 hours. Requisites: courses 210, 211A, 211B. Understanding of professional practice in health-related organizations. Letter grading.

483. Leadership Development and Empowerment for Health Promotion and Health Education. (4) Lecture, three hours; discussion, one hour. Requisites: courses 210, 211A, and 211B, or prior public health and behavioral sciences courses. Risk communication theory, research and practice, including social and psychological bases of population risk perceptions, media theories, and how risk is portrayed in media. Environmental, product safety, food-borne and infectious diseases, disasters, and bioterrorism communications. Letter grading.

485. Resource Development for Community Health Programs. (4) Lecture, three hours; fieldwork, one hour. Requisites: courses 210, 211A, and 211B, or prior public health and behavioral sciences courses. Risk communication theory, research and practice, including social and psychological bases of population risk perceptions, media theories, and how risk is portrayed in media. Environmental, product safety, food-borne and infectious diseases, disasters, and bioterrorism communications. Letter grading.


495B. Teaching in Public Health. (4) Lecture, three hours. Limited to School of Public Health doctoral students. Preparation: advanced doctoral students for teaching responsibilities as part of university career. Although classroom teaching to be emphasized, information and ideas can be applied to other educational and training settings. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, by arrangement. 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.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, by arrangement. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

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Scope and Objectives
Standing at the forefront of innovative work in literary, theoretical, and cultural studies, comparative literature is one of the most exciting fields in the humanities. As a discipline it requires exceptional linguistic ability, theoretical knowledge, and high intellectual caliber. UCLA's program offers students the opportunity to work with faculty members in any of the University's language and literature departments as well as with the Comparative Literature Department faculty.

The Comparative Literature Department, an interdisciplinary and multilingual department, is committed to continuing its pioneering work in defining new literary paradigms and fostering new directions for exploration in literary studies, including such areas as the relationship between translation and transnationalism, literary theory and emerging media, the future of national literatures in an era of globalization, gender and sexuality studies, East-West cultural encounters, human rights and global censor-
ship, postcolonial and diaspora studies, and experimental approaches to literature and culture.

Focusing first and foremost on those literary elements that preoccupy literary studies in general, such as genre, period, theme, language, and theory, comparative literature also extends its range to questions that concern other disciplines such as anthropology, art history, film and media studies, gender studies, history, and philosophy. Courses are designed to provide students with both a historical and theoretical understanding of literary and cultural forms, themes, and movements. Given its focus on interdisciplinary research and pedagogy, comparative literature is the natural site around which to organize modern language and literary studies.

Undergraduate Study

Comparative Literature B.A.

Preparation for the Major

Required: (1) Two courses from the Comparative Literature 1, 2, or 4 series (with approval of the director of undergraduate studies, a comparable and appropriate lower division course in another department may be substituted for one of the courses); (2) completion of the College Writing requirement; and (3) literary proficiency in at least one language other than English, to be demonstrated by admission into one upper division literature course in the original language.

Transfer Students

Transfer applicants to the Comparative Literature major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English composition course, two literature survey courses, at least one of which must be world literature, and the equivalent of at least one year of foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten courses, of which (1) five must be from comparative literature offerings, including Comparative Literature 100 and at least four additional comparative literature courses selected from M101 through 197; (2) three upper division literature courses using original language texts in the primary language area; (3) two upper division literature courses using original language texts in the secondary language area (students may petition the undergraduate adviser to take two upper division literature courses in translation if their primary literature area is in a language other than English).

Honors Program

The honors program is open to Comparative Literature majors with a 3.5 departmental and a 3.25 overall grade-point average. Eligible interested students should contact the undergraduate adviser to enter the program.

Honors candidates must complete all requirements for the major and an honors research paper (in addition to regular course requirements) in two of the four required upper division comparative literature courses. Candidates must also complete a fourth course in the primary literature area and Comparative Literature 198 with a core faculty member in which they write a senior honors paper of approximately 25 pages.

Comparative Literature Minor

The Comparative Literature minor offers students interested in literature and the humanities the opportunity to gain insight into the critical problems and theories addressed by comparative literature and to apply that knowledge in literature and comparative literature courses.

To enter the minor students must have fulfilled the College Writing requirement, have completed 40 units with an overall grade-point average of 2.0 or better, have taken at least one year or equivalent of a language other than English, and file a petition with either the faculty or staff undergraduate adviser, 350B Humanities Building, (310) 825-7650.

Required Courses (28 units minimum): (1) Four upper division comparative literature courses (one course from Comparative Literature 1A through 4DW may be substituted); (2) two upper division courses in one literature (e.g., Arabic, Chinese, English, French, German, Korean, Russian, Spanish) in the original language; and (3) one upper division course in a second literature in the original language (one level six foreign language course may be substituted). If students complete two upper division courses in a language other than English, they may petition to take one upper division course taught in English translation to fulfill the third requirement.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa/lib/book/pgmqrintro.htm. In many cases, more detailed guidelines will 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.), Candidate in Philosophy (C.Phil.), 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 Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Homer, Odyssey, Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristan and Isolde. P/NP or letter grading.

1B. World Literature: Middle Ages to 17th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2BW or 4BW. Study of 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 20th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major texts in world literature, with emphasis on Western civilization. Authors include Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, Dostoevsky, Kafka, Joyce, Woolf, and Stevens. P/NP or letter grading.

1D. Great Books from World at Large. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major texts in world literature, with emphasis on Western civilization. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. P/NP or letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 5H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 4AW. Study of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, Marie de France, Tristan and Isolde, 1001 Nights, Popul Vult. Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 4BW. Study of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts include major works and authors such as Chaucer, Dante, Cervantes, Marguerite de Navarre, Shakespeare, Calderón, Molière, and Racine. Satisfies Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to 20th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 4CW. Study of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Writing II requirement. Letter grading.
2DW. Survey of Literature: Great Books from World at Large. (5) Lecture, two hours; discussion, two hours. Enforced prerequisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Middle East, and Latin American. Satisfies Writing II requirement. Letter grading.

4AW. Literature and Writing: Antiquity to Middle Ages. (5) Discussion, four hours. Enforced prerequisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 2BW. Study and discussion of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Homer, Dante, and Strindberg. P/NP or letter grading.

102. Classical Tradition: Epic. (4) Seminar, three hours. Designed for upper division literature majors. Analysis of how select works of Roman and Greek literature influence the development of plays in Renaissance, with consideration of historical and literary influences on plays. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduate students read all works in translation. P/NP or letter grading.

M123. Oral Literature and Performance of Arab World. (4) (Same as Arabic M123.) Lecture, three hours. Knowledge of Arabic not required. Introduction to study of living oral traditions of troubadours, storytellers, oral poets, and performers in Arabic-speaking Middle East. P/NP or letter grading.

M132. Comparative Media Studies. (4) (Same as Russian M132.) Lecture, three hours. History, form, and function of various media. Grounded in political and commercial experience of Eastern Europe, comparative investigation of media technologies, today’s uses of new media, past and present. P/NP or letter grading.

C122. Renaissance Drama. (4) Lecture, three hours. Designed for upper division literature majors. Broads the study of plays in Renaissance, with consideration of historical and literary influences on plays. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduate students read all works in translation. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4) (Same as Arabic M148). Seminar, three hours. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultural commitments (iltizam), with focus on popular forms such as Arab film, feminist Arab film or popular Arab film and song; topics such as nation, gender, and representation or democracy and human rights or censorship, reception, and resistance. Possible examination of national cinemas such as Tunisian, Egyptian, Moroccan, Algerian, and Palestinian. Various musical genres such as Rai, Mzoued, and Hip-hop also examined in relation to emergence not only of national cinemas, national music industries, and iconic singers but also of video clip, satellite TV, star academy, and reality shows — all products of both internationals and pan-Arab mass media. P/NP or letter grading.

C152. Symbolism and Decadence. (5) Seminar, four hours. Designed for upper division literature majors. Study of symbolist and decadent movements in 19th- and 20th-century English and French poe try and prose, including authors such as Baudelaire, Rimbaud, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C252. Undergraduate students may read all required French texts in translation. P/NP or letter grading.

C153. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Designed for upper division literature majors. Study of specific poets and poetics relating to them during and following the Symbolist era. Texts may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelof, and Wallace Stevens. May be concurrently scheduled with course C253. Undergraduate students may read all required French texts in translation. P/NP or letter grading.


C155. Hemispheric Exchanges. (5) Lecture, three hours. Designed for juniors/seniors. In “Reading North by South,” Neil Larsen claims that North American interest in Latin American Boom literature was of sinister intent, being largely produced by U.S. Cold War policies directed at destroying fiction that presents images of areas ripe for development. From poetry perspective, dynamic was quite different. In 1930s, North American poets became involved in labor of love, reading, circulating, and translating contemporaneous poetry by their counterparts to south, producing lingua franca with unexplored consequences for poetic north and south of border. Study of poetry transla-
tions by writers from both hemispheres and examination of consequences of these preliminary translations for later development of poetry on both sides of continental divide. Concurrently scheduled with course C255. P/NP or letter grading.

C156. Fantastic Fictions. (4) Seminar, three hours. Designed for upper division literature majors. Time and again, our writing about literature, corpuses become conduits or catalysts for revelation. What are those ghosts that fiction frequently cannot put to rest, and what is their connection to national history or nation language or narrative? Reading from James Joyce, John Samville, Henry James, Toni Morrison, Adofo Boxasres, Juan Carlos Onetti, Juan Rulfo, and Carlos Fuentes, with films by Alejandro Amenabar, Andrei Tarkovsky, and Kenji Mazzoguchi. May be concurrently scheduled with course C256. Undergraduate students read all works in translation. P/NP or letter grading.

C157. Memory and Forgetting. (5) Seminar, four hours. Reflection on the nature and accounts of nature of traumatic memory and consideration of relationship between memory and history, meanings of both writing and reading about traumatic events, and discussion of ethical (personal and communal) commitment to memory. Reading of memoirs of survivors and questioning of importance of authenticity in regard to representations of past. Is memory necessarily based on actual past? What is role of testimony in maintenance of collective memory? How is value of testimony judged? What are criteria on which authenticity is claimed? Concurrently scheduled with course C257. P/NP or letter grading.

158. Colonial Encounters. (4) Seminar, three hours. Discussion of how Western textual system restricts cultures of colonized peoples to encounter with Europeans. As writing limits to European frame of reference, reading of European literary works alongside their postcolonial counterparts. Investigation of how reversal of perspective affects telling of tale. P/NP or letter grading.

159. Exilic Pleasures: Memory, Writing, and Belonging in Contemporary Thought and Writings. (5) Lecture, four hours. Engagement of theoretical and literary texts about experience of living in exile and questioning of poets and poets of nature of traumatic memory and consideration of relationship between memory and history, meanings of both writing and reading about traumatic events, and discussion of ethical (personal and communal) commitment to memory. Reading of memoirs of survivors and questioning of importance of authenticity in regard to representations of past. Is memory necessarily based on actual past? What is role of testimony in maintenance of collective memory? How is value of testimony judged? What are criteria on which authenticity is claimed? Concurrently scheduled with course C257. P/NP or letter grading.

C160. Literature and Visual Arts. (4) Lecture, three hours. Designed for juniors/seniors. Knowledge of art history valuable but not required. Assuming that literature and visual arts are in some degree expressions of culture and 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. Undergraduate students read all works in translation. P/NP or letter grading.

C161. Fiction and History. (4) Seminar, three hours. Designed for upper division literature majors. Analysis of use of history, historians, and contemporaries in literary works of Renaissance and/or modern periods. Texts and individual assignments range from Renaissance historical narratives (Italian humanists, Machiavelli) to 19th- and 20th-century novels by authors such as Stendhal, Verga, Tomas D’Ambudusa, 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.

M162. Israel Seen Through Its Literature. (4) (Same as Jewish Studies M162.) Lecture, three hours. Attempt to impart profound understanding of Israel and Israeli literature. Examination of variety of literary texts — stories, novels, and poems — and reading of them in context of their historical backgrounds. P/NP or letter grading.


C164. Modern European Novel. (5) Seminar, three hours. Designed for upper division literature majors. Study of modern European novel’s development from 19th to 21st century. Use of authors such as Hardy, Strindberg, Lagerkvist, Gide, Prout, Mann, Joyce, Kafka, Woolf, Nabokov, Grass, Christa Wolf, and Enquist to focus on development of themes such as shifting authority, gender conflicts, change versus stasis, formal experimentation, and self-consciousness in narrative. May be concurrently scheduled with course C264. Undergraduate students read all works in translation. P/NP or letter grading.

M165. Holocaust in Literature. (4) (Same as Jewish Studies M187.) Lecture, three hours. Investigation of how Holocaust informs various literary and cinematic works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

M166. Modern Jewish Literature in English: Diaspora Literature. (4) (Same as Jewish Studies M151A.) Lecture, three hours. Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. P/NP or letter grading.

M167. Modern Arabic Literature in English. (4) (Same as Arabic M151.) Lecture, three hours. Designed for upper division literature majors. Topics may include constructions of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural industries; text and national context or questions of reception, exoticism, translation, and marketing. Genres may include pr wors, genres, variety of literary texts — stories, novels, and poems — and reading of them in context of their historical backgrounds. P/NP or letter grading.


169. Continental African Authors. (4) Lecture, three hours. Requisite: one course from 1A, 1B, 1C, 2AW, 2B, 2CW, or English Composition 3 or 3H. Introduction to new set of African authors and attempt to dis- cern similarities or differences in literature of major authors such as Achebe, Ngugi, Amath, Soyin- ka, etc. P/NP or letter grading.


C172. Postmodern Novel. (4) Seminar, three hours. Designed for upper division literature majors. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways — philosophically, scientifically, and economically. Emphasis on relationship of recent novels to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Boll, and Calvino. Concurrently scheduled with course C272. Undergraduate students read all works in translation. P/NP or letter grading.

C173. Postmodernism and Third World. (4) Seminar, three hours. Exploration of intersection between concepts of postmodernism and Third World culture and politics, including topics such as postmodernism and revolution; historical tales; gender, ethnicity, imperialism, and their relationship to cultural politics; and recent Latin American literature production. Concurrently scheduled with course C273. P/NP or letter grading.

M175. Race, Gender, Class. (5) (Same as Asian American Studies M165.) Seminar, three hours. Theoretical and literary readings combined to explore three main aspects of social and cultural experience (race, gender, class) as separate but interconnected spheres affecting both majority and minority populations in U.S. Examination of these issues from comparative perspectives. P/NP or letter grading.


177. Comparative Literature of Francophone and Anglophone Caribbean. (5) Seminar, three hours. Designed for juniors/seniors. Knowledge of culture and language valuable but not required. Discussion of history and culture and culture of Caribbean basin from New Orleans to Haiti, Martinique, Guadeloupe, Jamaica, Antigua, or Trinidad. Topics include history of French and English colonial influences and relations; Haitian revolution and its literary legacies, emergence of nationalistic discourses, search for cultural identity, rhetoric of negri- tude, global poetics of relation, creole movement, and literary achievements of African diaspora. P/NP or letter grading.

C178. India Ink: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of significant issues in history of 20th-century Indian litera- ture and culture. Great works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy, in- cluding novels, short stories, poetry, films, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture is experience of British colonial rule and massive cultural and material changes that accompanied it. Exploration of manner in which literature and culture have developed in interaction with powerful social forces, such as struggle for national independence from colonial rule, and with the expansion of Indian diaspora. Concurrently scheduled with course C278. P/NP or letter grading.

C179. Reading across Culture. (5) Seminar, three hours. What is it we do when we try to understand works of writers, movies, and music written in languages and cultures different from our own? How do we understand something foreign to us by immersing ourselves in it or by standing apart? Does ability to
understand something foreign imply taking universal

understanding. In 1930s, North American poets became in-

claims that North American interest in Latin American
counterparts to south, producing lingua franca with

unexplored consequences for poetry north and south of

border. Study of poetry translations by writers from

this range, the role of poetry in politics and social

consequences of these preliminary translations for later development of

poetry on both sides of continental divide. Concur-

rently scheduled with course C155. Graduate stu-

dents required to meet one additional hour each week. S/U or letter grading.

C256. Fantastic Fictions. (4) Seminar, three hours. Time and again in modern literature, corpuses become
culture of one nation or another. How do these facts correlate or
great literary works that fiction frequently cannot put to rest, and what is

their connection to national history or nation language or narrative? Readings from James Joyce, John Ban-

ville, Henry James, T.S. Eliot, Joyce Carol Oates, Josephine

Nijman, and Kenji Mizoguchi. May be concurrently

scheduled with course C116. Graduate students have

additional meetings and theoretical readings by Ben-

jamin, Freud, Barthes, Derrida, Rabate, Rickels, and

Caruth. S/U or letter grading.

C257. Memory and Forgetting. (5) Seminar, four hours. Knowledge of it is not required. How is nature of

traumatic memory and consideration of relationship between

memory and meaning, both of writing and reading about traumatic events, and discur-

sive performance of personal commitment to memory. Reading of memoirs of survivors and

questioning of importance of authenticity in regard to

representations of past. Is memory necessarily based on

actual past? What is role of testimony in maintain-

culture of collective memory? How is value of testimo-

ny judged? What are criteria on which authenticity is

claimed? Concurrently scheduled with course C157.

Graduate students required to give 20-minute presen-
	ation as basis for seminar paper. S/U or letter

grading.

C260. Literature and Visual Arts. (4) Lecture, three hours. Knowledge of it is not required. How is imagery

in literature connected to visual arts in cinema, architecture, and sculpture. Interdisciplinary investigation of

similarities and differences between plastic and verbal arts in

comparative study. May be repeated for credit with in-

structor and/or topic change. May be concurrently

scheduled with course C160. Graduate students re-

quired to read works in original languages. S/U or let-

ter grading.

C261. Fiction and History. (4) Seminar, three hours. Analysis of use of historical events, situations, and

characters in literary works of Renaissance and/or modern period. Texts and individual assignments range from

Renaissance historical narratives (Italian humanists, Machiavelii) to 19th-

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 concur-

rently scheduled with course C161. Graduate stu-

dents required to prepare papers based on texts read in

original languages. S/U or letter grading.

C263. Crisis of Consciousness in Modern Litera-

ture. (5) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European and American works that are

articulate with current subjectatter and artistic methods with growing self-consciousness of human

beings and their society, with focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrent-

ly scheduled with course C161. Graduate students re-

quired to prepare papers based on texts read in origi-

nal languages and to meet as group one additional hour each week. S/U or letter grading.

C264. Modern European Novel. (5) Seminar, three hours. Preparation: reading knowledge of at least one

appropriate foreign language. Study of modern Euro-

pean novel’s development from 19th to 21st century. Use of authors such as Hardy, Strindberg, Lagerkvist,

Gide, Proust, Mann, Joyce, Kafka, Woolf, Nabokov,
Grass, Christa Wolf, and Enquist to focus on development of themes such as shifting authority, gender conflicts, terror, identity, consumption, and self-consciousness in narrative. May be concurrently scheduled with course C164. Graduate students required to prepare papers based on texts read in original languages whenever possible and to meet one additional hour each week. S/U or letter grading.

265. Writing and 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 photography enters public domain framed by writing and discourse and is framed by photographic modes of representation. S/U or letter grading.

267. Comparative Arab Studies. (5) Seminar, three hours. Limited to graduate students. Investigation of ways in which Arab intellectuals, artists, and intellectuals have perseveringly sought to imagine and construct viable structures of cultural empowerment on pyre of political project of Arab nationalism and in growing response to globalization and consolidation of Western colonial and imperial ideologies in Arab world. Particular attention to technical and experimental modes of expression through which Arab artists working in different styles are engaged with some persistent and recurrent questions related to their mission, vocation, and commitment (itizam) to fundamental concerns of Arab world, to responsible mimetic urgency, and to general uses/potencies of rhetoric and poetics within contexts of profound asymmetries of power, temporalities, and actualities. S/U or letter grading.

C270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Gender Studies C270.) Seminar, four hours. Designed for graduate students. Investigation of narrative texts by French, German, English, American, Spanish, African, and Asian women writers from cross-cultural perspective. Common themes, problems, and techniques. Concurrently scheduled with course C170. S/U or letter grading.


C272. Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways — philosophically, scientifically, and economically. Emphasis on relationship of recent novels to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Flaubert, Woolf, Calvino. Concurrently scheduled with course C172. Graduate students required to meet as group one additional hour each week. S/U or letter grading.

C273. Postmodernism and 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-Marxist and post-Freudian; history and thought; gender, ethnicity, imperialism, and their relationship to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C173. S/U or letter grading.

M274. Theorizing Third World. (4) (Same as Asian American Studies M261.) Seminar, three hours. Invesitgation of politics of power, gender, and race in complex contexts of so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.

275. Nationalism and Immigration Today. (4) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Designed for graduate students. Theorizes on issues of postcolonialism, nationalism, and politics of identity in our postcolonial era, with consideration of broad range of texts (aesthetic representations, theoretical reflections, and political 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.

276. Reading Modern Bodies. (4) (Same as Japanese M276.) Seminar, three hours. Designed for graduate students. Exploration of construction of human body in modern contexts. Study rests on premise that postmodernism is experience of British colonial rule and massive changes that accompanied it. Exploration of manner in which literature and culture have developed in interaction with powerful social forces, such as struggle for national independence from Britain, articulation of modernism by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy, including novels, short stories, poetry, films, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture is experience of British colonial rule and massive cultural and material changes that accompanied it. How have these changes translated into Indian diaspora. Concurrently scheduled with course C178. S/U or letter grading.

C279. Subaltern Studies: Colonial Histories and Cultural Critique. (5) Seminar, three hours. Examination of certain links between practice of cultural criticism and problems in historiography of colonial and postcolonial societies. Use of key texts by members of Subaltern Studies collective of Indian historians to examine and bring to theorization their relationship. What kind of interdisciplinary space is produced by dialog of history and literary and cultural theory? Attention to literary texts to practice such interdisciplinary work in colonial setting. What is nature of bourgeoisie in colonial society? What kind of modernization does it seek? What is relationship of modern metropolitan bourgeoisie to indigenous one? S/U or letter grading.

280. Latin American Literature in Comparative Contexts. (4) Seminar, three hours. Preparation: reading knowledge of one foreign language. In-depth study of one topic of Latin American literature in comparative context. May be repeated for credit. S/U or letter grading.

284. Theories of Translation. (4) Seminar, three hours. Examination of various approaches to concept of translation and to its significance for literary study. Readings include authors such as Matthew Arnold, Walter Benjamin, George Steiner, and Susan Bassnett. S/U or letter grading.

285. Translation Workshop. (4) Seminar, three hours. Preparation: solid reading knowledge of at least one foreign language. Open to qualified undergraduate students. Preparation of papers designed to help students develop translation skills and present student work for discussion. Opportunity for students to determine whether they have desire and talent to pursue literary translation as part of their professional lives. S/U or letter grading.

M286. Workshop: Social Sciences Translation. (4) Seminar, three hours; tutorial, one hour. Preparation: solid reading knowledge of at least one foreign language. Designed for graduate social sciences students. Techniques students need to render scholarly texts in their fields from language they use in their research into English and to advance their knowledge of language at stage where they can use it more effectively in all aspects of their research, as well as take advantage of translation techniques they have learned. S/U or letter grading.

C287. Reading across Culture. (5) Seminar, three hours. What is it we do when we try to understand words, habits, gestures, and beliefs not our own? Do we understand something foreign to us by immersing ourselves in it or by suddenly trying to understand something foreign imply taking universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpretation have long history in both Western and non-Western cultures. Discussion of history of questions about cross-cultural interpretation and comparative interpretation of cultures in both comparative literature and cultural studies. Particular emphasis on work of such figures as Claude Lévi-Strauss, Amritav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erich Auerbach. Concurrently scheduled with course C184. S/U or letter grading.

289. Theory of Film and Literature. (5) Seminar, three hours; film screening, two hours. Study of redefinition and aims of theories of film and literature. Approaches vary by instructor (e.g., postcoloniality, psychoanalysis, semiotics, transnationalism, genre theory). S/U or letter grading.


292. Theories of Empire. (4) Seminar, three hours. Preparation: reading knowledge of modern imperialism and colonialism since relevant writings of Karl Marx and Friedrich Engels. Examination of number of landmark theories of empire and consideration of whether or not they may be used to construct tradition or line of theoretical development. Question of resistance to imperial rule and role it plays in these theoretical accounts. S/U or letter grading.

M293. Seminar: Literary Theory. (4) (Same as Asian M251, English M270, French M270, German M270, Italian M270, Scandinavian 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.

297. Death and Limits of Representation. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Examination of fundamental shifts in relationship that obtains between thinking and death which are closely tied to rethinking of status and structure of representation. May be repeated once for credit. S/U or letter grading.

299. Aesthetics and Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of literary theory through examination of work of ancient and contemporary philosophers grounded on analytic tradition. Careful attention to concepts of truth, meaning, expression, representation, metaphor, fiction, and literature. Letter grade.

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


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

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Limited to graduate comparative literature students. Necessary for students in comparative literature who need additional individual study and research. May be repeated for credit. S/U grading.

596X. Directed Individual Study. (2 to 4) Tutorial, to be arranged. Preparation for foreign language examination. May be repeated for credit. S/U grading.

597. Preparation for M.A. and Ph.D. Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. Preparation for M.A. comprehensive examination or Ph.D. qualifying examinations. May be repeated for credit. S/U grading.


**COMPUTATIONAL AND SYSTEMS BIOLOGY**

**Interdepartmental Program**

**College of Letters and Science**

UCLA

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**Faculty Committee**

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Joseph J. DiStefano III, Ph.D. (Computer Science, Medicine)

Eleazar Eskin, Ph.D. (Computer Science, Human Genetics)

Elliot M. Landaw, M.D., Ph.D. (Biomathematics)

Christopher J. Lee, Ph.D. (Chemistry and Biochemistry, Computer Science)

Matteo Pelegriini, Ph.D. (Molecular, Cell, and Developmental Biology)

Marc A. Suchard, M.D., Ph.D. (Biomathematics, Biostatistics, Human Genetics)

Xiaohu Grace Xiao, Ph.D. (Integrative Biology and Physiology)

**Scope and Objectives**

The major in Computational and Systems Biology is designed primarily for highly motivated undergraduate students interested in interdisciplinary studies in life sciences, behavioral sciences, and engineering and computer sciences. Preparation for the major consists of a broad foundation in basic sciences — chemistry, biology, physics, and mathematics, plus an introduction to computing. The major itself provides 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.

Computational and Systems Biology majors have several options for in-depth studies: a coherent integration of courses selected from one of five designated concentrations in bioinformatics, biomedical systems, computers and biosystems, neurosystems, or systems biology. The major is appropriate preparation for employment or for graduate studies in any of these areas, with emphasis on interdisciplinary activities. It is also appropriate preparation for professional school studies in dentistry, engineering, management, medicine, and public health.

**Undergraduate Study**

The Computational and Systems Biology major is a designated capstone major. The capstone experience is a senior-level sequence of two courses integrating the discipline via mathematical modeling, simulation, and active research and report writing. Students are expected to demonstrate critical thinking skills and familiarity with research techniques needed to successfully pursue a research project in a concentration. Students should be able to conceive and execute a research project on which they engage current methods and theory, communicate original scholarly findings to peers both in oral and written form, and work productively with others as part of a research team. The experience culminates with completion of the senior thesis requirement.

Computational and Systems Biology majors select a coherent integration of courses from one of five designated concentrations: bioinformatics, biomedical systems, computers and biosystems, neurosystems, or systems biology. The synergy for all concentrations is integrative systems, information, and computational systems modeling sciences in biology. The focus is primarily quantitative, as mastery of advanced quantitative skills is essential for multidisciplinary understanding. Each concentration emphasizes different systems or modalities, and modeling or other computational approaches. For students interested in broad options for postgraduate studies in life sciences and related areas, including medicine, the systems biology concentration covers the widest spectrum of quantitative systems studies at all levels. The other concentrations are more focused. For example, bioinformatics is more focused on computational aspects of genetics and biology at molecular and cellular levels. Students normally select one, but because the concentrations have substantial methodologic overlap, well-justified combinations are also possible.

The bioinformatics concentration is designed for students interested in computational discovery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computational, statistical, and other mathematical approaches for mining, modeling, and analyzing high-throughput biological data, and the inherent structure of biological information. Example research problems include finding statistical patterns that reveal genomic or evolutionary or developmental information, or how regulatory sequences give rise to programs of gene expression, or how the genome encodes the capabilities of the human mind.

The biomedical systems concentration is designed for students interested primarily in medical system studies, the systems aspects of biomedical, surgical, or other biomedical engineering system devices, including MEMS or nanoscale system devices, and use of dynamic biosystem modeling for optimizing or developing new clinical diagnostic or therapeutic protocols. Example research problems include feedback biocontrol system model development for imaging-based medical diagnosis and optimal control of therapeutic drug delivery.

The computer and biosystems concentration is designed for students interested primarily in computer hardware, software, data management, data representation, graph theory, computational algorithm, or artificial intelligence applications in biological sciences, medicine, or pharmacology. Research problems are typically algorithm oriented and/or involve graphs, automata, or software development. Examples include algorithmic or graph-theory based studies for managing genomics data, development of knowledge-based systems (KBS) for delivering patient education, and KBS for automating complex biosystem modeling tasks.

The neuroscience concentration is designed for students interested primarily in the nervous system, or quantitative neurophysiology, with emphasis on neural system networks that control behavior at molecular, cellular, and whole organism levels, neural information and control systems, and systems electrophysiology and neural electronic systems for controlling prostheses. Example research problems include analysis of (real) neural networks in normal and abnormal brain function, design of prosthetic systems for hearing (cochlear implant) and walking (spinal cord stimulation) recovery, and MEMS-based brain-machine interface devices.

The systems biology concentration is designed for students who want to understand biological systems holistically and quantitatively, and pursue research with an emphasis on systems and integrative principles in biology or medicine. The curriculum imparts an understanding of systems biology (often called the new physiology) using dynamical systems modeling, control, computer simulation, and other computational methods — integrated with the biology. For example, at the cellular level, systems biologists integrate proteomic, transcriptomic, and metabolomic information into a more complete systems picture of living organisms. However, the methodologies include single-scale or multi-scale modeling for enhancing understanding of regulatory biomechanisms at all levels — molecular, cellular, organ, and/or whole-organism levels — and are prevalent in population and systems biology.
ecosystem studies, as well as systems-level problems in medicine and pharmacology.

Computational and Systems Biology B.S.

Capstone Major

Computational and Systems Biology Premajor

Students entering UCLA directly from high school or first-term transfer students who declare the Computational and Systems Biology premajor at the time of application are automatically admitted. Current UCLA students need to file a petition with the Undergraduate Advising Office in 4436 Boelter Hall.

All students are identified as premajors until they satisfy the preparation for the major requirements by (1) achieving a minimum 2.7 grade-point average in all premajor mathematics courses, (2) achieving a minimum 3.0 GPA and a minimum grade of C in all premajor courses, and (3) filing a petition to declare the Computational and Systems Biology major.

Preparation for the Major

Required: A minimum of 82 to 94 units (depending on the computer programming course and physics sequence selected), including Chemistry and Biochemistry 20A, 20B, 20L, 30A; Computer Science 31 or Program in Computing 10A; Life Sciences 1, 2, 3, 4; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 115A; Physics 1A, 1B, and 1C (or Electrical Engineering 1), or 1AH, 1BH, and 1CH.

Students following the bioinformatics or the computer systems concentration must also complete Computer Science 32, or Program in Computing 10B and 10C.

Transfer Students

Transfer applicants to the Computational and Systems Biology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of general chemistry with laboratory for majors, two years of calculus for majors, one year of calculus-based physics, one year of biology with laboratory for majors, one psychology course, and one programming course using C++.

Transfer applicants must meet the same academic requirements as current UCLA students, based on all courses transferred from another institution that satisfy premajor requirements, and must have completed one 12-unit term of residence in regular session at UCLA.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admis_tr.htm for up-to-date information regarding transfer selection for admission.

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 each preparation for the major course).

The major consists of a methodology core of six courses (23 units), a concentration of five upper division courses (20 units minimum), and a two-course capstone research requirement (9 units). Each course in the major must be passed with a grade of C or better.

Methodology Core

Required: (1) Computational and Systems Biology M184, 185, (2) two probability and statistics courses from one of the following groups: (a) Statistics 100A and 100B or (b) Mathematics 170A and Statistics 100B or (c) Electrical Engineering 131A and Statistics 100B, and (3) two signals, systems, and control systems courses: (a) Electrical Engineering 102 and (b) Electrical Engineering 141 or Mechanical and Aerospace Engineering 171A.

Concentrations

Required: A minimum of five courses (20 to 30 units) from the concentrations listed below. No 199 course may be applied toward any concentration. An approved list of courses for each concentration is available in the program office and at http://www.cs.ucla.edu/C&SB/.

Bioinformatics (at least 20 units): Computer Science CM121, CM124, Molecular, Cell, and Developmental Biology M140 (or 144), 172 (or Physiological Science 125), and one additional course from the bioinformatics approved course list. Note: Computer Science 32, or Program in Computing 10B and 10C are completed in the premajor.

Biomedical Systems (at least 20 units): Bioengineering CM102, CM103, Electrical Engineering 103 (or Mathematics 151A), and two additional courses from the biomedical systems approved course list.

Computers and Biosystems (at least 20 units): Bioengineering CM102 (or CM103 or Molecular, Cell, and Developmental Biology M140 or 144 or Physiological Science 166), Computer Science 170A (or Electrical Engineering 103 or Mathematics 151A), 180, and two additional courses from the computers and biosystems approved list. Note: Computer Science 32, or Program in Computing 10B and 10C are completed in the premajor.

Neurosystems (20 units): Neuroscience M101A, M101B, 102 (or Electrical Engineering 113 or Mathematics 155), and two additional courses from the neurosystems approved list.

Systems Biology (at least 20 units): Ecology and Evolutionary Biology 170 (or Physiological Science 166), Molecular, Cell, and Developmental Biology 100 (or 144), 172 (or Physiological Science 125), and two additional courses from the systems biology approved list.

Capstone Research Requirement

Required: Computational and Systems Biology M186 to be taken in the sophomore or junior year and M187 to be taken in the junior or senior year after completion of course M186.

Honors Program

Students with a grade-point average of 3.5 or better in required major courses and a 3.0 cumulative GPA may apply for admission to the honors program. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior research thesis.

Mathematical Biology Minor

The Mathematical Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. The minor core examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice. Students complete a core curriculum and an elective course. The minor consists of lower division courses basic to the minor and four core courses and one option course that provide the needed background in mathematical biology, molecular and cell biology, statistics and probability, and mathematical modeling and simulation methods for biological systems.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better, (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the administrative office, 4436 Boelter Hall, after appropriate counseling.

Required Lower Division Courses (8 units): Mathematics 33A, 33B.

Required Upper Division Courses (24 units): Computational and Systems Biology M184, M186, Mathematics 170A or Electrical Engineering 131A or Statistics 100A, Molecular, Cell, and Developmental Biology M140 or 144, Statistics 100B, and one elective course selected from Biomathematics 106, 108, Electrical Engineering 102, Mathematics 134, 136, 171, Molecular Cell, and Developmental Biology 172, or Physiological Science 125.

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

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

Structural Biology Minor

The Structural Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. It examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology and consists of lower division courses basic to the minor, plus three core courses and one option course that provide the needed background in structural biology, biologic microscopy, and biochemistry. Students who complete the minor have sufficient training
to apply the knowledge they learn in graduate school or employment of their choice.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better, (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the administrative office, 4436 Boelter Hall, after appropriate counseling.

Required Lower Division Course (4 units): Mathematics 33A.

Required Upper Division Courses (22 units):
- Chemistry and Biochemistry 153A, M230B, Computational and Systems Biology M184, Microbiology, Immunology, and Molecular Genetics 105, and two elective courses selected from Biostatistics 100A, Chemistry and Biochemistry M117, 175, Electrical Engineering 102, 113, Statistics 100A, 100B.

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

Computational and Systems Biology Minor

The Systems Biology minor introduces undergraduate students to an active interdisciplinary quantitative biosciences research and teaching field at UCLA. It provides a coherent course plan encompassing basic foundations of the field. Beside broadening student knowledge in systems biology, the minor provides enhanced perspective about computational and systems biology methods and applications and better prepares students to make more informed choices about their future directions and careers. The minor consists of lower division courses basic to the minor, a survey seminar course, and four core courses and one option course that provide the needed background in molecular and cell biology, computational and systems engineering, and mathematical modeling and simulation methods for biological systems.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better, (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the administrative office, 4436 Boelter Hall, after appropriate counseling.

Required Lower Division Courses (6 units):
- Mathematics 33A, 33B.

Required Upper Division Courses (20 units):
- Computational and Systems Biology M184, M186, Electrical Engineering 102, 141 (or Mechanical and Aerospace Engineering 171A), Molecular, Cell, and Developmental Biology M140 or 144, and one elective course selected from Biomathematics 106, 108, Mathematics 134, 151A, 151B, 170A, 170B, 171, Molecular, Cell, and Developmental Biology 172, or Physiological Science 125.

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

Computational and Systems Biology

Upper Division Courses

M184. Introduction to Computational and Systems Biology. (2) Lecture, one hour; discussion, one hour; laboratory, two hours; outside study, four hours. Requisites: Computer Science 31 (or Program in Computing 10A), Mathematics 31A, 31B. Survey course designed to introduce students to computational and systems modeling and computation in biology and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and aiming for more informed bases for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

185. Thesis Research Opportunities in Computational and Systems Biology. (2) Lecture, one hour; discussion, one hour; laboratory, two hours; outside study, two hours. Requisites: course M184, Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Life Sciences 2, 3, 4. Introduction to research opportunities in computational and systems biology to prepare students for active engagement in research. Presentation of potential projects by faculty members and student visits to individual laboratories and participation in ongoing projects. P/NP grading.

M186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Formerly numbered M186B.) (Same as Bioengineering M184 and Computer Science M184.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Corequisite: Electrical Engineering 102. Dynamic biosystems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Control system, multicompartmental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Letter grading.

M187. Thesis Research and Research Communication in Computational and Systems Biology. (2 to 4) (Formerly numbered M186C.) (Same as Bioengineering CM186 and Computer Science CM186.) Lecture, one hour; discussion, two hours; laboratory, one hour; outside study, eight hours. Requisite: course M186. Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Letter grading.

198. Honors Research in Cybernetics. (4) Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

Computer Science

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Associate Professors
- Jungho Cho, Ph.D.
- Eleazar Eskin, Ph.D.
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 software systems, information and data management, artificial intelligence, computer science theory, computational systems biology and bioinformatics, and computer vision and graphics.

The undergraduate and graduate studies and research projects in computer science are supported by significant computing resources. In addition to the departmental computing facility, there are over a dozen research laboratories specializing in areas such as distributed systems, multimedia computer communications, distributed sensor networks, VLSI systems, VLSI CAD, embedded and reconfigurable systems, computer graphics, bioinformatics, and artificial intelligence. Also, the Cognitive Systems Laboratory is engaged in studying computer systems that emulate or support human reasoning. The Biocybernetics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

The B.S. degree may be attained either through the Computer Science and Engineering major or through the Computer Science major described below.

In addition to the B.S. in Computer Science and Engineering and the B.S. in Computer Science, HSSEAS 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).

**Scope and Objectives**

*Computer Science and Engineering B.S.*

**Capstone Major**

The ABET-accredited 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 and the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.  

**Preparation for the Major**

*Required:* Chemistry and Biochemistry 20A; Computer Science 1, 31, 32, 33, 35L, M51A (or Electrical Engineering M161); Electrical Engineering 1, 2, 10; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 4A, 4BL.

**The Major**

*Required:* Computer Science 111, 118, 131, M151B (or Electrical Engineering M116C), M152A (or Electrical Engineering M116L), 180, 181, Electrical Engineering 102, 110, 110L, 115A, 115C, Statistics 100A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Computer Science 152B); and three upper division computer science elective courses (12 units), one of which must be selected from Computer Science 143 or 174A. The remaining two elective courses must be selected from Computer Science 112, 113, 114, M117 (or Electrical Engineering M117), CM121 (or Chemistry and Biochemistry CM160A), CM122 (or Chemistry and Biochemistry CM160B), CM124 (or Human Genetics CM124), 130, 132, 133, 136, 143, 144, 151C, 161, 170A, M171L (or Electrical Engineering M171L), 174A, 174B, C174C, 183, M184 (or Bioengineering M184 or Computational and Systems Biology M184), CM186 (or Bioengineering CM186B or Computational and Systems Biology M186), CM187 (or Bioengineering CM187 or Computational and Systems Biology M187). Electrical Engineering 103 may be substituted for one elective (credit is not given for both Computer Science 170A and Electrical Engineering 103 unless one of the courses is included in the technical breadth area); 4 units of either Computer Science 194 or 199 may be applied as an elective by petition.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

*Computer Science B.S.*

**Capstone Major**

The computer science curriculum is designed to accommodate students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The curriculum consists of components in computer science, a minor or technical support area, and a core of courses from the social sciences, life sciences, and humanities. Within the curriculum, students study subject matter in software engineering, principles of programming languages, data structures, computer architecture, theory of computation and formal languages, operating systems, distributed systems, computer modeling, computer networks, compiler construction, and artificial intelligence. Majors are prepared for employment in a wide range of industrial and business environments.

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.  

**Preparation for the Major**

*Required:* Chemistry and Biochemistry 20A; Computer Science 1, 31, 32, 33, 35L, M51A (or Electrical Engineering M161); Electrical Engineering 1; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 4A, 4BL.

**The Major**

*Required:* Computer Science 111, 118, 131, M151B (or Electrical Engineering M116C), M152A (or Electrical Engineering M116L), 180, 181, Statistics 100A; three science and technology courses (12 units) not used to satisfy other requirements, that may include three upper division computer science courses or three courses selected from an approved list available in the Office of Academic and Student Affairs; three technical breadth courses (12 units)
selected from an approved list available in the Office of Academic and Student Affairs; one capstone software engineering or design course from Computer Science 130 or 152B; and six upper division computer science elective courses (24 units), two of which must be selected from Computer Science 143, 161, or 174A and one of which must be from 112 or 170A or Electrical Engineering 103 (credit is not given for both Computer Science 170A and Electrical Engineering 103 unless one of the courses is included in the technical breadth area). The remaining three elective courses must be selected from Computer Science 112, 113, 114, M117 (or Electrical Engineering M117), CM121 (or Chemistry and Biochemistry CM160A), CM122 (or Chemistry and Biochemistry CM160B), CM124 (or Human Genetics CM124), 130 (unless taken as a required course), 132, 133, 136, 143, 144, 151C, 152B (unless taken as a required course), 161, 170A, M171L (or Electrical Engineering M171L), 174A, 174B, C174C, 183, M184 (or Bioengineering M184 or Computational and Systems Biology M184), CM186 (or Bioengineering CM186 or Computational and Systems Biology M186), CM187 (or Bioengineering CM187 or Computational and Systems Biology M187). If students have not taken Computer Science 130, one elective course must be 132; 4 units of either Computer Science 194 or 199 may be applied as an elective by petition.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Bioinformatics Minor

The Bioinformatics minor introduces undergraduate students to the emerging interdisciplinary field of bioinformatics, an active area of research at UCLA combining elements of the computational sciences with the biological sciences. The minor organizes the many course offerings in different UCLA departments into a coherent course plan providing students with significant training in bioinformatics in addition to the training they obtain from their major. Students who complete the minor will be strong candidates for admission to Ph.D. programs in bioinformatics as well as the relevant training to obtain jobs in the biotechnology industry.

Students complete a core curriculum and an elective course and are strongly encouraged to participate in undergraduate research as early as possible in one of the many groups offering research opportunities in bioinformatics.

To enter the minor, students must be (1) in good academic standing (2.0 grade point average or better) and (2) file a petition in the Office of Academic and Student Affairs of the Henry Samuel School of Engineering and Applied Science, 6426 Boelter Hall; or, for College life or other natural sciences students, in the administrative office of the Computational and System Biology IDP, 4436 Boelter Hall.

Required Lower Division Courses (14 units minimum): Computer Science 32 or Program in Computing 10C, Life Sciences 3, 23L, Mathematics 33A.

Required Upper Division Courses (18 units minimum): Computational and Systems Biology M184, Computer Science CM121 (or Chemistry and Biochemistry CM160A), CM124 (or Human Genetics CM124), 180 (or Mathematics 182), and one bioinformatics elective course selected from Computational and Systems Biology M186, Computer Science CM122, 170A, Ecology and Evolutionary Biology 135, Electrical Engineering 102, 141, Human Genetics C144, Molecular, Cell, and Developmental Biology 144, 172, Physiological Science 125, Statistics 100A, 100B.

Students are strongly encouraged to take Computer Science M184 as early as possible to obtain an overview of computational biology.

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

No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program. If students complete some of the minor requirements as part of their major program, they can take additional courses from the bioinformatics elective course list.

All minor courses must be taken for a letter grade, and students must have 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gradaa/index.htm. 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

1. Freshman Computer Science Seminar. (1) Seminar, one hour; discussion, one hour. Introduction to department resources and principal topics and key ideas in computer science and computer engineering. Assignments given to bolster independent study and writing skills. Letter grading.

2. Great Ideas in Computer Science. (4) Lecture, four hours; outside study, eight hours. Breadth coverage for liberal arts and social sciences students of computer science theory, technology, and implications, including artificial and neural machine intelligence, computability limits, virtual reality, cellular automata, artificial life, programming languages survey, and philosophical and societal implications. P/NP or letter grading.

31. Introduction to Computer Science I. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to computer science via theory, applications, and programming, including basic data types, operators and control structures. Input/output, procedural and data abstraction, introduction to object-oriented software development. Functions, recursion. Array, strings, pointers. All exact data types, object-oriented programming. Examples and exercises from computer science theory and applications. Letter grading.


33. Introduction to Computer Organization. (5) Lecture, four hours; discussion, two hours; outside study, nine hours. Enforced requisite: course 32. Introductory course on computer hardware, assembly language, and operating systems fundamentals. Number systems, machine language, and assembly language. Procedure calls, stacks, interrupts, and traps. Assemblers, linkers, loaders. Operating systems concepts: processes and process management, input/output (I/O) programming, memory management, file systems. Letter grading.

35L. Software Construction Laboratory. (2) Laboratory, four hours; outside study, two hours. Requisite: course 31. Fundamentals of commonly used software tools and environments, particularly open-source tools to be used in upper division computer science courses. Letter grading.

M51A. Logic Design of Digital Systems. (4) (Same as Electrical Engineering E16.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. specification and implementation of combinational and sequential systems. Standard logic modules and programmable logic arrays. Specification and implementation of algorithmic systems; data and control sections. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grading.

97. Variable Topics in Computer Science. (1 to 4) Lecture, one to four hours; discussion, zero to two hours. Design for undergraduate seminars. Variable topics in computer science not covered in regular computer science courses. May be repeated once for credit with topic or instructor change. Letter grading.

Upper Division Courses


112. Modeling Uncertainty in Information Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Statistics 100A. Designed for seniors/juniors. Probability and stochastic process models as applied in computer science. Basic methodological tools include random variables, conditional probability, expectation and higher moments, Bayesian theorem, Markov chains. Applications include probabilistic algorithms, evidential reasoning, analysis of algorithms and data structures, reliability, communication protocols and queuing models. Letter grading.
114. Peer-to-Peer Systems. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Recommended requisites: courses 32, 118. Option courses 111, 218. Fundamental concepts on peer-to-peer networks, such as distributed hash-tables, routing, searching, and related network management protocols (Join, Leave, death management, routing, table repair). Discussion on Internet Protocol Transmission Control Protocol (IPTP) applications, with emphasis on thin clients such as PDAs and smart phones. Introduction to mesh-based inter-network topologies for live streaming, with emphasis on key aspects of peer selection metrics and illustration of common optimization techniques (peer capacity, network delay). Hands-on approach to guide students to development and testing of all experimental system on PlanetLab. Letter grading.

M117. Computer Networks: Physical Layer. (Same as Electrical Engineering M117.) Lecture; two hours; discussion; two hours; laboratory; outside study; six hours. Not open to students with credit for course M171L. Introduction to fundamental computer communication concepts underlying and supporting modern networks, with focus on wireless communications and media access layers of network protocol stack. Systems include wireless LANs (IEEE802.11) and ad hoc wireless and personal area networks (WPANs). In brief, experimental emphasis based on mobile radio-equipped devices (smart phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, and environment awareness. Two experiment laboratory sessions included. Letter grading.

118. Computer Network Fundamentals. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: courses 32, 33, 35L, 111. Designed for junior/seniors. Introduction to design and performance evaluation of computer networks, including such topics as what protocols are, layered network architecture, Internet protocol architecture, network protocols, transport protocols, routing algorithms and protocols, internetworking, congestion control, and link layer protocols including Ethernet and wireless channels. Letter grading.

CM121. Introduction to Bioinformatics. (Same as Chemistry CM160A.) Lecture; four hours; discussion; two hours. Recommended requisites: course 32 or Program in Computing 10C with grade of C– or better, and Biostatistics 100A or Mathematics 170A or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to Bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment and currently scheduled with course CM221P. N/P or letter grading.

CM122. Algorithms in Bioinformatics and Systems Biology. (Same as Chemistry CM160B.) Lecture; four hours; discussion; two hours. Recommended requisites: course 32 or Program in Computing 10C with grade of C– or better, and Biostatistics 100A or 110A or Mathematics 170A or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment and currently scheduled with course CM221P. N/P or letter grading.

CM124. Computational Genetics. (Same as Human Genetics CM124.) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: courses 32, and Mathematics 100A or 110A or Mathematics 170A or Statistics 100A. Recommended for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing technologies. Focus on understanding genetic pediatric problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM134. Letter grading.

130. Software Engineering. (4) Lecture; four hours; laboratory; two hours; outside study; six hours. Requisites: courses 32, 35L. Recommended: Engineering 183EW or 185EW or Electrical Engineering 183EW or 185EW or Computer Science 183EW or 185EW. Study of software engineering: definition, 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, 35L. Basic concepts in design and use of programming languages, including abstraction, modularity, control mechanisms, types, declarations, syntax, and semantics. Study of several different language paradigms, including functional, object-oriented, and logic programming. Letter grading.

132. Compiler Construction. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: courses 32, 35L, 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, 33, 35L. Parallelism and distributed computing models: MapReduce, distributed systems, fault-tolerance, and recovery. Introduction to parallel and distributed systems. Letter grading.

136. Introduction to Computer Security. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: courses 111, 118. Introduction to basic concepts of information security necessary for students to understand risks and mitigations associated with protection of systems and data. Topics include security models and architectures, security threats and risk analysis, access control and authentication, cryptography, network security, secure application design, and ethics and law. Letter grading.

143. Database Systems. (4) Lecture; four hours; laboratory; two hours; outside study; six hours. Requisites: course 132 or Information Systems 17a and database systems in enterprises. File organization and secondary storage structures. Relational model and relational database systems. Network, hierarchical, and other models. Query languages. Database design principles, Transactions, concurrency, and recovery. Logic and integrity. Letter grading.

144. Web Applications. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Enforced prerequisite: course 143. Important concepts and theory for building effective and safe Web applications and first-hand experience with basic tools. Topics include basic Web architecture and protocol, XML and XML query language, multimedia content, distributed and advanced applications, information retrieval model and theory, security and user model, Web services and distributed transactions. Letter grading.

M151B. Computer Systems Architecture. (4) (Same as Electrical Engineering M116C.) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: courses 33, and M51A or Electrical Engineering M16. Recommended: courses 111, and M152A or Electrical Engineering M16L. Computer system organization and design, implementation of CPU datapath and control, instruction set design, memory hierarchy (caches, main memory, virtual memory) organization and management, input/output subsystems (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.


M152A. Introductory Digital Design Laboratory. (2) (Same as Electrical Engineering M116L) Laboratory, four hours; outside study; two hours. Requisite: course M51A or Electrical Engineering M16. 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.

152B. Digital Design Project Laboratory. (2) Laboratory, four hours; discussion; two hours; outside study. Requisite: course M51B or Electrical Engineering M116C. Recommended: Engineering 183EW or 185EW. Limited to seniors. 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.


M171L. Data Communication Systems Laboratory. (2 to 4) (Same as Electrical Engineering M171L) Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M152A. Limited to seniors. Not open to students with credit for course M171L. Interpretation of analog-signaling aspects of digital systems and data communications through experience in using contemporary test instruments to generate and display signals in relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, design computers, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modern and terminal characteristics, and interfaces. Letter grading.

174A. Introduction to Computer Graphics. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Requisite: course 32. Basic principles behind modern two- and three-dimensional computer graphics systems, including complete set of steps that modern graphics pipelines use to create realistic images in real time. How to position and manipulate objects in scene using geometric and camera transfer functions and how to create finitely complex and orthographic transformations. Basics of modeling primitives such as polygonal models and implicit and
parametric surfaces. Basic ideas behind color spaces, illumination models, shading, and texture mapping. Lecture 174B. Introduction to Computer Graphics: Three- Dimensional Photography and Rendering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 174A. State of art in three-dimensional photographic and image-based ren- dering. How to use cameras and light to capture shape and appearance of real objects and scenes. Process provides simple way to acquire three-dimen- sional images and manipulate and digitize real-world im- ages; image-based rendering. Introduction to application of three-dimensional models in entertainment (virtual reality and postprocessing of movies, genera- tion of realistic synthetic objects and characters) to medicine (medical photography and image-based ren- dering data), mixed reality (augmentation of video), and security (visual surveillance). Fundamental ana- lytical tools for modeling and interfacing geometric (shape) and photometric (reflection, illumination) properties of objects and scenes, and for rendering and manipulating novel views. Letter grading.

C174C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 174A. Designed for juniors/seniors. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture, animation techniques, physics-based anima- tion of particles and systems, and motor control. Con- currently scheduled with course C274C. Letter grading.


183. Introduction to Cryptography. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Preparation: knowledge of basic probability theory. Requisite: course 180. Introduction to cryptography, computer security, and basic concepts and tech- niques. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permu- tations, semantic security, public-key and private-key encryption, key-agreement, homomorphic encryption, private information retrieval and voting protocols, message authentication codes, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, and two-party secure computation with static security. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) (Formerly numbered M186A.) (Same as Bioengineering M184 and Computational and Sys- tems Biology M184.) Lecture, two hours; outside study, four hours. Requisites: course 31 (or Program in Computing 10A). Mathematics 31A, 31B. Survey course designed to introduce students to computa- tional and systems biology and computing in biol- ogy and medicine, providing motivation, flavor, cul- ture, and cutting-edge contributions in computational biosciences and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computa- tional and systems biology research. P/NP grading.

CM186B. Introduction to Computational and Model- ing and Simulation of Biological Systems. (5) (Formerly numbered CM186B.) (Same as Bioengi- neering CM186 and Computational and Systems Bi- ology CM186.) Lecture, four hours; outside study, three hours; outside study, eight hours. Corequisite: Electri- cal Engineering 102. Dynamic biosystems modeling and computer simulation methods for studying biological systems: cellular, molecular, and population levels of organization. Control system, multicompart- mental, predator-prey, pharmacokinetic (PK), phar- macodynamic (PD), and other structural modeling methodologies. Multiscale (molecu- lar, cellular: biochemical pathways/networks, organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concur- rently scheduled with course CM286. Letter grade.

CM187. Thesis Research and Research Communi- cation in Computational and Systems Biology. (2 to 4) (Formerly numbered CM186C.) (Same as Bio- engineering CM187 and Computational and Systems Biology CM187.) Lecture, four hours; laboratory, one hour; outside study, eight hours. Requisite: course CM186. Closely directed, in- teractive, and real research experience in active quantitative laboratory research. Directed study on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concur- rently scheduled with course CM287. Letter grading.

182. Directed Research in Computer Science. (4) Lecture, four hours; outside study, eight hours. Special topics in computer science for undergraduate stu- dents taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Computer Sci- ence. (4) Seminar, four hours; outside study, eight hours. Requisite: course 182. Seminar for students who are part of research group. Discussion of research meth- ods and current literature in field or of research of fac- ulty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Computer Science. (2 to 8) Tutorial, to be arranged. Limited to juniors/se- niors. Supervised individual research or investigation under guidance of faculty mentor. Cummilating paper or project required. May be repeated for credit with school approval. Individual contract required; enroll- ment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201. Computer Science Seminar. (2) Seminar, four hours; outside study, two hours. Designed for gradu- ate computer science students. Seminars on current research topics in computer science. May be repeat- ed for credit. Subject to change. Letter grading.

202. Advanced Computer Science Seminar. (4) Seminar, four hours; outside study, eight hours. Pre- paration: completion of major field examination in com- puter science. Current computer science research into the presentation and discussion of new developments and applica- tions of information processing systems. Each mem- ber completes one tutorial and one or more original pieces of work in one specialized area. May be re- peated 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. Requisite: course 118. Designed for graduate students. In-depth study of network protocol and systems software de- sign in area of wireless and mobile Internet. Topics in- clude (1) networking fundamentals: design philosophy of TCP/IP, end-to-end arguments, and protocol design principles; (2) network architecture: IP/ARP, MAC standard, packet scheduling, mobile IP, ad hoc rout- ing, and wireless TCP; (3) mobile computing systems software: middleware, file systems, services, and applic- ations; (4) topics on efficient design, security, location management, and quality of service. Letter grading.


212B. Queueing Applications: Scheduling Algo- rithms and Queueing Networks. (4) Lecture, four hours; outside study, four hours. Requisite: course 212A. Priority queueing. Applications to time-sharing scheduling algorithms: FB, Round Robin, Conserva- tion Law, Bounds. Queueing networks: definitions; job flow networks; product form; balance, two hours; laboratory, one hour; outside study, eight hours. Requisite: course CM186. Closely directed, in- teractive, and real research experience in active quantitative laboratory research. Directed study on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concur- rently scheduled with course CM287. Letter grading.

212C. Computer Networks. (4) Lecture, four hours; outside study, eight hours. Special topics in computer science for undergraduate stu- dents taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

213A. Embedded Systems. (4) (Same as Electrical Engi- neering M202A.) Lecture, four hours; outside study, eight hours. Requisite: course 111. Designed for graduate computer science and electrical engi- neering students. Methodologies and technologies for design of embedded systems. Topics include hard- ware and software platforms for embedded systems, techniques for modeling and specification of system behavior, software organization, real-time operating system scheduling, real-time communication and packet scheduling, low-power battery and energy- aware system design, timing synchronization, fault tol- erance and debugging, and techniques for hardware and software architecture optimization. Theoretical foundations as well as practical design methods. Let- ter grading.

213B. Distributed Embedded Systems. (4) (Same as Electrical Engineering M202B.) Lecture, four hours; outside study, eight hours. Requisites: courses 111, and 118 or Electrical Engineering 132B. Designed for graduate students. Methodologies and electri- cal engineering students. Interdisciplinary course with focus on study of distributed embedded systems con- cepts needed to realize systems such as wireless sensor and actuator networks for monitoring and control of physical world. Topics include network self-con- figuration with localization and timing synchronization; energy-aware sensor system design and operation; protocols for MAC, routing, transport, disruption tolerance; pro- gramming issues and models for language, OS, da- tabase, and middleware; in-network collaborative pro- cessing; fundamental characteristics such as cover- age, connectivity, capacity; techniques for exploitation and management of actuation and mobili- ty; data and system integrity issues with calibration, faults, debugging, and security; and usage issues principles, (2) networking protocols: 802.11, MAC In- ternational standards; tests and measurements. Letter grading.

214. Data Transmission for Computer Commu- nications. (4) Lecture, four hours; outside study, eight hours. Requisite: course 112. Limited to graduate computer science students. Discrete data streams, formats, rates, transmission; digital data transmis- sions via analog signaling in computer communica- tion; media characteristics, systems methodologies, performance analysis; modem designs; physical inter- faces of computer communication links; national/inter- national standards; tests and measurements. Letter grading.
215. **Computer Communications and Networks.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 216 or course 217A or consent of instructor. Topics include network design, internet architecture and protocols; network standards and protocols; satellite and ground radio packet switching; local networks; commercial network services and architectures. Optional topics include extended error control techniques; modems; SDLC, HDLC, X.25, etc.; protocol verification; network simulation and measurement; integrated networks; communication processors. Letter grading.

216. **Distributed Multiserver Control in Networks.**
(4) Lecture, four hours; outside study, eight hours. Requisite: courses 212A, 215. Topics from field of distributed control and access in computer networks, including terrestrial distributed computer networks; satellite packet switching; ground radio packet switching; local network architecture and control. Letter grading.

217A. **Internet Architecture and Protocols.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 118. Focus on mastering existing core set of Internet protocols, including IP, core transport protocols, routing protocols, DNS, NTP, and security protocols such as TCP/IP. Understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

217B. **Advanced Topics in Internet Research.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 217A. Designed for graduate students. Overview of Internet development history and fundamental principles underlying TCP/IP protocol design. Discussion of current Internet research topics, including recent research results in routing protocols, transport protocols, network measurements, network security protocols, and human-computer interaction with network architecture design. Fundamental issues in network protocol design and implementations. Letter grading.

218. **Advanced Computer Networks.**

219. **Current Topics in Computer System Modeling and Analysis.**
(4) Lecture, four hours; outside study, four hours. Review of current literature in area of computer system modeling and analysis in which instructor has developed special proficiency as consequence of research and/or industrial experience. Other topics may be covered. May be repeated for credit with consent of instructor. Letter grading.

220. **Introduction to Bioinformatics.**
(4) same as Bioinformatics M260A, Chemistry M260A, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Recommended prerequisites: course 32 or Program in Computing 10C with grade of C- or better, and Bioinformatics 100A or Mathematics 170A or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduces computational bioinformatics and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM212. Letter grading.

221. **Advanced Algorithms in Bioinformatics and Systems Biology.**
(4) same as Bioinformatics M260B, and Chemistry M260B.) Lecture, four hours; discussion, two hours. Recommended prerequisites: course 32 or Program in Computing 10C with grade of C- or better, and Bioinformatics 100A or 110A or Mathematics 170A or Statistics 100A. Course CM221 is not a prerequisite to CM222. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM212. Letter grading.

222. **Computational Genetics.**
(4) Same as Bioinformatics M222A.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C- or better, and Biostatistics 100A or 110A or Mathematics 170A or Statistics 100A. Course CM221 is not a prerequisite to CM222. Designed for undergraduate students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational tools for research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM212. Letter grading.

222S. **Seminar: Current Topics in Bioinformatics.**
(4) Same as Human Genetics M222S.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Introduction to state-of-the-art research in bioinformatics, including various stakeholders and techniques, their usage in programming language design and research. Letter grading.

230A. **Models of Information and Computation.**
(4) Lecture, four hours; outside study, eight hours. Requisites: courses 131, 181. Paradigms, models, frameworks, and problem solving: UML and metamodeling; basic information and computation models; axiomatic systems; domain theory; least fixed point theory; well-founded induction. Logical models: sentences, axioms, normal forms, derivation and proof, models and semantics, propositional logic, first-order logic, logic programming. Functional models: expressions, equations, evaluation; combinators; lambda calculus; formal program verification; program programs; program derivation and verification using Hoare logic; object models, standard templates, design patterns, frameworks. Letter grading.

231. **Types and Programming Languages.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 131. Introduction to static type systems and their usage in programming language design and software reliability. Operational semantics, simply-typed lambda calculus, type soundness proofs, types for mutable references, types for exceptions. Parametric polymorphism, bound polymorphism, polymorphic type inference. Theories for objects, subtyping, combining parametric polymorphism and subtyping. Types for modules, parameterized modules. Formal specification and implementation of type systems. Well as advances in research literature on modern applications of type systems. Letter grading.

232. **Static Program Analysis.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 132. Introduction to object-oriented programs and its usage for optimization and bug finding. Class hierarchy analysis, rapid type analysis, equality-based analysis, subset-based analysis, flow-insensitive and flow-sensitive context-insensitive and context-sensitive analysis. Soundness proofs for static analyses. Efficient data structures for static analysis information such as directed graphs and binary decision diagrams. Flow-directed method inlining, type-safe method inlining, synchronization optimization, deadlock detection, security vulnerability detection. Formal specification and implementation of variety of static analyses, as well as readings from recent research literature on modern applications of static analysis. Letter grading.

233A. **Parallel Programming.**
(4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Mutual exclusions and resource allocation in distributed systems; primitives for parallel computation; specification of parallelism, interprocess communication and synchronization, atomic actions, binary and linearondemand rendezvous, synchronous and asynchronous languages: CSP, Ada, Linda, Maieus, UC, and others; introduction to parallel program verification. Letter grading.

233B. **Verification of Concurrent Programs.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 233A. Formal techniques for verification of concurrent programs. Topics include safety, liveness, program and state assertion-based techniques, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and axiomatic semantics for selected parallel languages. Letter grading.

234. **Computer-Aided Verification.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 132. Introduction to theoretical foundations of formal methods for design and analysis of concurrent and embedded systems, with focus on algorithmic techniques for checking logical properties of software. Topics include semantics of active systems, invariant verification, temporal logic model checking, theory of omega automata, state-space reduction techniques, compositional and hierarchical reasoning. Letter grading.

235. **Advanced Operating Systems.**
(4) Lecture, four hours. Preparation: C or C++ programming experience. Requisite: course 111. In-depth investigation of operating systems issues through guided construction of research operating system for PC machines and consideration of recent literature. Memory management and protection, interrupts and traps, process interprocess communication, multithreading, file systems. Virtualization, networking, profiling, research operating systems. Series of laboratory projects, including extra challenge work. Letter grading.

236. **Computer Security.**
(4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 118. Basic and research material on computer security. Topics include basic principles and goals of computer security, common security problems and cryptographic protocols for security, security tools (firewalls, virtual private networks, honeypots), virus and worm protection, security assurance and testing, design of secure programming language, applying security principles to real-world problems, and new and emerging threats and security tools. Letter grading.

239. **Current Topics in Computer Science: Programming Languages and Systems.**
(2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science programming languages and systems in which instructor has developed special proficiency as consequence of research and/or industrial experience. May be repeated for credit with topic change. Letter grading.

240A. **Databases and Knowledge Bases.**
(4) Lecture, four hours; outside study, eight hours. Requisite: course 143. Theoretical and technological foundation of Intelligent Database Systems, that merge database technology, knowledge-based systems, and advanced programming environments. Rule-based knowledge representation, spatial-temporal reasoning, and logic-based declarative querying/programming are salient features of this technology. Other topics include object-relational systems and data mining techniques. Letter grading.

240B. **Advanced Data and Knowledge Bases.**
(4) Lecture, four hours; outside study, eight hours. Requisites: courses 143, 240A. Logical models for data and knowledge representations. Rule-based languages and deductive logic programming. Temporal queries, spatial queries, and uncertainty in deductive databases and object relational databases (ORDBs). Abstract
241A. Database Systems. (4) Lecture, four hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisite: course 143. Multimedia data: alphanumeric, long text, images/pictures, video, and voice. Multimedia information systems requirements. Data models. Searching and accessing databases and across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and commercial product design and organization. Logical and physical indexing methods. Internet multimedia streaming. Other topics at discretion of instructor. Letter grading.

241B. Pictorial and Multimedia Database Management. (4) Lecture, three and one-half hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisite: course 143. Multimedia data: alphanumeric, long text, images/pictures, video, and voice. Multimedia information systems requirements. Data models. Searching and accessing databases and across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and commercial product design and organization. Logical and physical indexing methods. Internet multimedia streaming. Other topics at discretion of instructor. Letter grading.

244A. Computer Architecture for Processing Large-Scale Database Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215 and/or 241A. File allocation, intelligent directory design, transaction management, deadlock, strong and weak concurrency control, commit protocols, recovery, and parallel database systems. Data-level transactions, query execution and optimization, cost models, and memory management. Letter grading.

244B. Advanced Database Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 241A, 245A. Knowledge discovery in database, knowledge-base maintenance, knowledge-base and database integration architectures, scale-up issues and applications to cooperative database systems, intelligent decision support systems, and intelligent planning and scheduling systems; computer architecture for processing large-scale knowledge-base/database systems. Letter grading.

246. Web Information Management. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 112, 143, 180, 181. Designed for graduate students in computer science. Course requires knowledge of algorithms and principles for their management and retrieval. Study of Web characteristics and new management techniques needed to build computer systems suitable for the Web. Topics include Web dis- cussing techniques, large-scale data mining algo- rithms, efficient page refresh techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

249. Current Topics in Data Structures. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of data structures in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with consent of instructor. Letter grading.

251A. Advanced Computer Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 111. Design and implementation of high-performance systems, advanced memory hierarchy techniques, static and dynamic pipelining, superscalar and VLIW proces- sors, branch prediction, speculative execution, software support for instruction-level parallelism, simul- ation-based performance analysis and evaluation, state-of-the-art design examples, introduction to parallel architectures. Letter grading.

251B. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 251A. SIMD and RISC cores and multiprocessors. Data-level parallelism and memory hierarchies. Matrix processors and systems, message-passing systems, multicore clusters, interconnection networks, host-network interfaces, switching element design, communication protocols, memory coherence, memory consistency models, synchronization primiti- vies, state-of-the-art design examples. Letter grading.


252C. Testing and Testable Design of VLSI Sys- tems. (4) Lecture, four hours; outside study, eight hours. Requisite: course M51A. Detailed study of var- ious testing problems: testing and testable designs of VLSI systems, including simulation, fault diagnosis, fault simulation, testing for single stuck faults and multiple stuck faults. Functional testing, design for testability, compression techniques, and built-in self-test. Letter grading.

252D. Computer Arithmetic for Modern Memory Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 251A. Generic types of memory systems; control, access modes, hierarchies, and al- location algorithms. Characteristics, system organiza- tion, and device considerations of ferri memories, thin film memories, and semiconductor memories. Letter grading.

252A. Distributed Processing Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 215 and/or 251A. Task partitioning and allocation, interprocess communications, task re- source time model, process scheduling, message passing protocols, replicated file systems, interface, cache memory, actor model, fine grain multicomput- ers, distributed operating system kernel, error recov- ery strategy, performance monitoring and measure- ment, scalability, prototyping, and commercial distributed systems. Letter grading.

256A. Advanced Scalable Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 251B. Recommended: course 251A. State-of-the-art scalable multithreading and interdependency among implementation technology, chip microarchitec- ture, and system architecture. High-performance building blocks, such as chip multiprocessors (CMPs). On-chip and off-chip communication. Mechanisms for exploiting parallelism at all levels. Current re- search areas. Examples of chips and systems. Letter grading.

256A. Design of VLSI Circuits and Systems. (4) (Same as Electrical Engineering M216A.) Lecture, four hours; discussion, one hour; laboratory, four hours; outside study, three hours. Requisites: course M51A and M51B, and Electrical Engineering 115A. Recommended: Electrical Engi- neering 115C. LSI/VLSI design and application in computer systems. Fundamental design techniques that can be used to create complex integrated systems on chips. Letter grading.

256B. Circuits and Systems. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M256A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

258E. Foundations of VLSI CAD Algorithms. (4) Lecture, four hours; outside study, eight hours. Prepa- ration: one course in analysis and design of algo- rithms or theoretical computer science for VLSI physical layout, including mathematical pro- gramming, network flows, matching, greedy and heu- ristic algorithms, and stochastic methods. Emphasis on design of applications including physical design of VLSI circuits at high-level phases of layout: partitioning, placement, gate folding, floorplanning, and global routing. Letter grading.

258F. Physical Design Automation of VLSI Sys- tems. (4) Lecture, four hours; outside study, eight hours. Detailed study of various physical design auto- mation problems of VLSI circuits, including logic parti- tioning, floorplanning, channel and switchbox routing, planar and via minimization, compaction and performance-driven layout. Discussion of applications of number of impor- tant optimization techniques, such as network flows, Steiner trees, simulated annealing, and generic algo- rithms. Letter grading.

258G. Logic Synthesis of Digital Systems. (4) Lecture, four hours; outside study, eight hours. Requi- sites: courses M51A, 180. Detailed study of various problems in logic-level synthesis of VLSI digital sys- tems, including two-level Boolean network optimiza- tion; multilevel Boolean network optimization; technol- ogy mapping for standard-cell and field-pro- grammable gate-array (FPGA) designs; retiming for sequential circuits; and applications of binary decision diagrams (BDDs). Letter grading.

258H. Analysis and Design of High-Speed VLSI Inter- connections. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M258A, 258F. De- tailed study of various problems in analysis and design of high-speed VLSI interconnects at both inte- grated circuit (IC) and packing levels, including inter- connect capacitance and resistance, lossless and lossy transmission lines, cross-talk and power distribu- tion noise, delay models and power dissipation models, interconnect topology and geometry optimi- zation, and clocking for high-speed systems. Letter grading.

259. Current Topics in Computer Science: System Design/Architecture. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science system design in which instructor has developed special proficiency as consequence of research interests. Topics may be repeated for credit with topic change. Letter grading.

260. Machine Learning Theory. (4) Lecture, four hours. Preparation: basic knowledge of probability needed to read and understand proofs. Theoretical foundations underlying common machine learning algorithms. Topics include introduction to PAC learning model, universal convergence theory; VC dimension, online learning, no-regret learning, online convex optimization, ensemble methods and boost- ing, SVMs, and connections to game theory. Letter grading.

261A. Problem Solving and Search. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. In-depth treatment of systematic prob- lemsolving search algorithms in artificial intelligence, including problem spaces, heuris- tic search, linear-space algorithms, real-time search, heuristic evaluation functions, two-player games, and constraint-satisfaction problems. 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 un- certainty in reasoning systems; presentation of com- prehensive description of Bayesian inference using belief networks representation. Letter grading.

262B. Knowledge-Based Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 262A. Machine representation of judgmental knowl- edge and uncertain or uncertain or imprecise knowledge. Rule-based systems — princi- ples, advantages, and limitations. Sign language-
ing. Automated planning systems. Knowledge acquisition and explanation producing techniques.
Letter grading.


262Z. Current Topics in Cognitive Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 262A. Additional requisites for each offering determined by department. Theory and implementation of systems that emulate or support human reasoning. Current literature and individual studies in artificial intelligence, knowledge-based systems, expert systems, cognitive 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 and natural language generation. Machine translation, word-sense disambiguation, narrative and editorial comprehension. Examination of both symbolic and statistical approaches to natural language processing and acquisition. Letter grading.

263B. Connectionist Natural Language Processing. (4) Lecture, four hours; outside study, eight hours. Requisite: course 161 or 263A. Examination of connectionist/ANN architectures designed for natural language processing. Issues include localist versus distributed representations, variable binding, instantiation and inference via spreading activation, acquisition of knowledge from sensory experience (e.g., via back propagation in PDP networks 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 or 161. Animats are mobile/sensing animal-like software agents embedded in simulated dynamic environments on modeling of artificial behavior modeled by 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 propositional and first-order logic. Topics include soundness and completeness of inference, resolution, calculi for logic, proof theory, semantics of logic, reasoning by equivalence, planning, formal logic, computational philosophy, and reliability analysis. Letter grading.


M266A. Statistical Modeling and Learning in Vision and Science. (4) (Same as Statistics M232A.) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix, analysis), computer vision, computer vision and pattern recognition. Study of four types of statistical models for modeling visual patterns: descriptive, causal Markov, generative (hidden Markov), and discriminative. Development of principles and algorithms for these models; presentation of unifying picture. Introduction to minimax entropy and EM-type and stochastic algorithms for learning. S/U or letter grading.

M266B. Statistical Computing and Inference in Vision and Image Science. (4) (Same as Statistics M232B.) Lecture, three hours. Preparation: basic statistics; linear algebra (matrix, analysis), computer vision, computer vision and pattern recognition. Introduction to broad range of algorithms for statistical inference and learning that could be used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computing, sequential Monte Carlo methods, belief propagation, partial differential equations. S/U or letter grading.

267A. Neural Models. (4) Lecture, four hours; outside study, eight hours. Requisite: 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 papers 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 current and past implementations of artificial neural networks along with their applications to associative knowledge representation, general multi-sensor pattern recognition including speed and vision, and adaptive robot control. Students required to prepare papers analyzing research in one area of interest. Letter grading.


268S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Designed for students undertaking thesis research. Discussion of advanced topics and current research in computational neuroscience. Neural networks and connectionism as 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. (4) (Seminar, to be arranged.) Review of current literature and research practice in an area of artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit. S/U grading.

270A. Computer Methodology: Advanced Numerical Methods. (4) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 103 or Mathematics 151B or comparable experience with numerical computing. Designed for graduate computer science and engineering students. Principles of computer treatment of selected numerical problems in algebraic and differential systems, transforms and spectra, data acquisition and reduction; emphasis on concepts pertinent to modeling and simulation and appropriate computer hardware. Letter grading.


271C. Seminar: Advanced Simulation Methods. (2) Seminar, two hours; outside study, six hours. Requisite: course 271A. Discussion of advanced topics in simulation of systems characterized by ordinary and partial differential equations. Topics include (among others) simulation languages, dataflow machines, array processors, and advanced mathematical modeling techniques. Topics vary each term. May be repeated for credit. S/U grading.

272. Advanced Discrete Event Simulation and Modeling Techniques. (4) Lecture, four hours; outside study, eight hours. In-depth study in discrete event simulation and modeling techniques, including building valid and credible simulation models, output analysis of systems, comparisons of alternative systems configurations. Variance reduction techniques, simulation models of computer systems and manufacturing systems. Letter grading.


C274C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 174A. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C274C. Letter grading.

C274D. Applied Life Visualization, Graphics and Vision. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Required: course 161. Investigation of important role that concepts from artificial life, emerging discipline that spans computational and biological sciences, can play in construction of advanced computer graphics and vision models for virtual reality, animation, interactive games, active vision, visual sensor networks, medical image analysis, etc. Focus on comprehensive models that can realistically emulate variety of living things (plants and animals) from lower animals to human, covering a wide range of natural phenomena of life and their incorporation into sophisticated, self-animating graphic entities. Specific topics include modeling plants using L-systems, biomechanical simulation and control, behavior animation, reinforcement and neural-network learning of locomotion, cognitive modeling, artificial animals and humans, human facial animation, and artificial evolution. Letter grading.

M276A. Pattern Recognition and Machine Learning. (4) (Same as Statistics M231.) Lecture, three hours. Designed for graduate students. Fundamental concepts, theories, and algorithms for pattern recognition and machine learning. Applications in computer vision, image processing, speech recognition, data mining, statistics, and computational biology. Topics include Bayesian decision theory, parametric and
nonparametric learning, clustering, complexity (VC-dimension, MLD, AIC), PCA/ICA/CTCA, MDS, SVM, boosting. S/U or letter grading.

276B. 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 interpretation, radiologic and robotic applications. Letter grading.

276C. Speech and Language Communication in Artificial Intelligence. (4) Lecture, four hours; outside study, eight hours. Requisite: course M276A 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, speech and text to computer input and output in applications. Letter grading.

M278. Probabilistic Models of Cognition. (4) (Same as Statistics M239.) Seminar, three hours; discussion, one hour. Requisite: course 180, Mathematics 33A. Statistics 100B. Modeling aspects of human cognition, designing artificial intelligence systems. Introduction to conceptual foundations and basic mathematical and computational techniques. Topics line up with different aspects of cognition. S/ U or letter grading.

279. Current Topics in Computer Science: Methodology. (2 to 12) Lecture, four hours; outside study, eight hours. Recommended prerequisites: course CM276C, S/U or 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. Study of algorithm literature and content of computer science methodology in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

280AP. Approximation Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Background in discrete mathematics helpful. Theoretically sound techniques for dealing with NP-hard problems. Inability to solve these problems efficiently means algorithmic techniques are based on approximation — finding solution that is near to best possible in efficient running time. Coverage of approximation algorithms is different from those of polynomially-time algorithms, with algorithm design techniques that include primal-dual method, linear program rounding, greedy algorithms, and local search. Letter grading.

281A. Computability and Complexity. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181 or compatible background. Concepts fundamental to study of discrete information systems and theory of computing, with emphasis on regular sets of strings, Turing-recognizable (recursively enumerable) sets, closure properties, machine characterizations, nondeterminism, decidability, unsolvable problems, “easy” and “hard” problems, PTIME/NPTIME. Letter grading.

281D. Discrete State Systems. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: course 181. Finite-state machines, transducers, automata, grammars; design of finite-state systems; 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 modeling, and simulation. Letter grading.

M282A. Cryptography. (4) (Same as Mathematics M203A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public key cryptography, signature, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement. Letter and two- or three-credit secure computation with static security. Letter grading.

M282B. Cryptographic Protocols. (4) (Same as Mathematics M209B.) Lecture, four hours; outside study, eight hours. Requisite: course M282A. Consideration of advanced cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent, and adaptive security; identity-based cryptography; IP=PSpace proof, stronger notions of security for public-key encryption, including chosen-plaintext security; secure multiparty computation; dealing with dynamic adversary; non-malleability and composability of secure protocols; software threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-middle attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.


284A-284ZZ. Combinatorics and Graphs. (4 each) Lecture, four hours; outside study, eight hours. Requisite: course 181. Additional requisites for each offering announced in advance by department. Selections from graphs, languages, grammars, machines, operators; pushdown automata, context-free languages and their generalizations, parsing; multidimensional grammars, developmental systems; machine-generated complexity. Subtitles of some current and planned sections: Context-Free Languages (284A), Parsing Algorithms (284P). May be repeated for credit with instructor and topic change. Letter grading.

CM286. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Formerly numbered CM286B.) (Same as Bioengineering CM286.) Lecture, four hours; laboratory, three hours; research, one hour. Recommended prerequisite: Engineering 102. Dynamic modeling and simulation of biological processes and systems at multiple levels ranging from core systems, multicellular, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematics models and implementing them on computer. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM186B. Letter grading.

CM287. Thesis Research and Research Computation in Computational and Systems Biology. (2 to 4) (Formerly numbered CM286C.) (Same as Bioengineering CM287.) Lecture, one hour; discussion, two hours; laboratory, one hour; outside study, eight hours. Requisite: course CM286B. Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Directed research to focus on topics of particular interest in scientific community appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with research for search results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM187. 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 recursion schemes; equivalence, optimization, correctness, and translatability of programs; expressive power of program constructs and data structures; selectivity, tree and factoring. Letter grading.

288S. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requisite: courses 280A, 281A. Intended for students undertaking thesis research. Discussion of advanced topics and current research in such areas as algorithms and complexity models for parallel and concurrent computation, and formal language and automata theory. May be repeated for credit. Letter grading.

289A-289ZZ. Current Topics in Computer Theory. (2 to 12 each) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer theory in which instructor has developed special proficiency as consequence of research interest. Students report on selected topics. Letter grading.

289CO. Online Algorithms. (4) Lecture, four hours; outside study, eight hours. Diagonalization, polynomial and exponential time, PCP and de-randomization, circuit complexity, attempts and limitations to proving P does not equal NP, average-case complexity, one-way functions, hardness amplification. Problem sets provide problems from previous and original research related to course topics. Letter grading.

289OA. Randomized Algorithms. (4) Lecture, four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, random walks, and probabilistic method. Applications to randomized algorithms in data structures, graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Review of current literature in area of biocomputational, biomedical, pharmaceutical, chemical, and related systems. Control system, multicompartmental, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applicability, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M296B. Optimal Parameter Estimation and Experimental Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biometrics M270, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: courses CM286B or M296A. Extensive computer-based 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 simulations in physiology and pharmacology. Letter grading.

M296C. Advanced Topics and Research in Biomedical Systems and Modeling. (4) (Same as Bioengineering M296C and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisite: course M296B. Research techniques and experience on special topics involving
CONSERVATION OF ARCHAEOLOGICAL AND ETHNOGRAPHIC MATERIALS

Interdepartmental Program
College of Letters and Science
UCLA
A410 Fowler Building
Box 951510
Los Angeles, CA 90095-1510
(310) 825-9407
fax: (310) 206-4723
e-mail: acords@ucla.edu
http://www.ioa.ucla.edu/conservation-program/

Joanna Kacoulli, D.Phil., Chair

Faculty Committee
Susan B. Downey, Ph.D. (Art History)
Robin L. Garrell, Ph.D. (Chemistry and Biochemistry)
Mark S. Goorsky, Ph.D. (Materials Science and Engineering)
Mark T. Harrison, Ph.D. (Earth and Space Science)
Abby Kavner, Ph.D. (Earth and Space Science)
Gavin Lawrence, D.Phil. (Philosophy)
John K. Papadopoulos, Ph.D. (Classics)
Suzanne E. Paulson, Ph.D. (Atmospheric and Oceanic Sciences, Institute of the Environment and Sustainability)
Ellen J. Pearstein, M.A. (Information Studies)
David A. Scott, Ph.D. (Art History)
Lothar von Falkenhauen, Ph.D. (Art History)
Willeke Z. Wendrich, Ph.D. (Near Eastern Languages and Cultures)

Scope and Objectives

Students study for an M.A. degree in Conversa-
tion of Archaeological and Ethnographic Mat-
erials, with emphasis on the multiple values and
meanings that archaeological and ethnographic
artifacts may hold for society, and how they im-
pact decisions on the conservation and use of
those materials. In the conservation philosophy
that underpins the program, there is a strong in-
disciplinary component, essential to effective
working practices in the future. The Inter-
departmental Program in Conservation of Arche-
ological and Ethnographic Materials is a collab-
orative venture with several schools, depart-
ments and programs. It includes students from
assistant dean, Graduate Studies. S/U grading.

597A. Preparation for M.S. Comprehensive Exam-
nation. (2 to 12) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation
for the M.S. comprehensive examination. S/U grad-
ing.

597B. Preparation for Ph.D. Preliminary Examina-
tions. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation
for the Ph.D. preliminary examinations. S/U grad-
ing.

597C. Preparation for Ph.D. Oral Qualifying Exam-
ination. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation
for oral qualifying examination, including prelimi-

598. Research for and Preparation of M.S. Thesis.
(2 to 12) Tutorial, to be arranged. Limited to graduate
computer science students. Supervised indepen-
dent research for M.S. candidates, including thesis pro-
spects. S/U grading.

599. Research for and Preparation of Ph.D. Disser-
tation. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation
for dissertation research. S/U grading

Computing Program in
See Mathematics

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa
library/pgmqrintro.htm. In many cases, more
detailed guidelines may be outlined in announ-
cements, other publications, and websites
of the schools, departments, and programs.

Graduate Degree

The Conservation of Archaeological and Ethnographic Materials Program offers a Master of Arts (M.A.) degree in Conservation of Archaeo-
logical and Ethnographic Materials.

Conservation of Archaeological and Ethnographic Materials

Graduate Courses

M210. Cultural Materials Science II: In Vitro Microscopy and Microanalysis. (4) Same as Materi-
als Science CM212.) Lecture, three hours; laboratory, two hours. Preparation: general chemistry, or inorgan-
ic and organic chemistry. Methodology of sampling
and microanalysis of cultural materials for study of
their morphology, microstructure, and composition by
applying in vitro optical, chemical, and instrumental
methods. Topics include optical and electron micros-
copy, X-ray and electron spectroscopy, X-ray diffra-
c tion, infrared spectroscopy, chemical spot tests, and
chromatography. Hands-on experience through ob-
ject-based problem-solving approach. Practical skills
acquired on sampling and sample preparation meth-
ods of cultural materials and on analysis of microsam-
pies using basic instruments for characterization of
organic and inorganic compounds. Letter grading.

M215. Cultural Materials Science III: In Situ Non-invasive Diagnostic Investigations and Documenta-
tion. (4) Same as Art History M204A.) Seminar, two
hours; laboratory, three hours. This course in science
is about understanding chemistry and technolo-
gy of cultural materials and processes of deterioration

models, modeling methods, and model/computing
in biological and medical sciences. Review and critique
of literature on developing searching and formu-
lation. Approaches to solutions. Individual M.S.-
and Ph.D.-level project training. Letter grading.

M296D. Introduction to Computational Cardiology. (4) (Same as Bioengineering M296D.) Lecture, four
hours; outside study, eight hours. Prerequisite: course
CM186. Introduction to mathematical modeling and
computer simulation of cardiac electrophysiological
process. Ironic models of action potential (AP). Theory
of AP propagation in one-dimensional and two-dimen-
sional cardiac tissue. Simulation on sequential and
parallel supercomputers, choice of numerical algo-
rithms, to optimize accuracy and to provide computa-
tional stability. Letter grading.

298. Research Seminar: Computer Science. (2 to
4) Seminar, two to four hours; outside study, four to
eight hours. Designed for graduate computer science
students. Discussion of advanced topics and current
research in algorithmic processes that describe and
transform information: theory, analysis, design, effi-
ciency, implementation, and application. May be re-
peated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inar, to be arranged. Preparation: apprentice personal-
nel employment as teaching assistant, associate, or
fellow. Teaching apprenticeship under active guidance
and supervision of regular faculty member responsi-
ble for curriculum and instruction at UCLA. May be re-
peated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2)
Seminar, two hours; outside study, six hours. Limited to
graduate Computer Science Department students. Seminar
on communication of computer science ma-
terials in classroom: preparation, organization of ma-
terial, presentation, use of visual aids, grading, advis-
ing, and rapport with students. S/U grading.

495B. Teaching with Technology. (2) Seminar,
two hours; outside study, four hours. Limited to graduate
Computer Science Department teaching assistants.
Seminar for teaching assistants covering how tech-
ology can be used to aid instruction in and out of
classroom. S/U grading.

497D-497E. Field Projects in Computer Science.
(4-4) Fieldwork, to be arranged. Students are divided
into teams led by instructor; each team is assigned
one external company or organization that they inves-
tigate as candidate for possible computerization, sub-
mitting team report of their findings and recommenda-
tions. In Progress (497D) and S/U or letter (497E)
grading.

596. Directed Individual or Tutorial Studies. (2 to
8) Tutorial, to be arranged. Limited to graduate com-
puter science students. Petition forms to request en-
rollments may be obtained from assistant dean, Gradu-
ate Studies. Supervised investigation of advanced

597A. Preparation for M.S. Comprehensive Exami-
nation. (2 to 12) Tutorial, to be arranged. Limited to
graduate computer science students. Reading and
preparation for M.S. comprehensive examination. S/U grad-
ing.

597B. Preparation for Ph.D. Preliminary Examina-
tions. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation
for Ph.D. preliminary examinations. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Exam-
ination. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation
for oral qualifying examination, including preliminary re-

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 pro-
spects. S/U grading.

599. Research for and Preparation of Ph.D. Disser-
tation. (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.

The partnership between UCLA and the Getty in
creating the program ensures that both a ma-
jor research university and an institution with a
major mandate for conservation of the artistic
heritage of the world are working to create a
rich and vibrant conservation training opportu-
nity. The program helps students develop work-
ing relationships with a wide array of col-
leagues in the Getty Conservation Institute, the
J. Paul Getty Museum, other local museums and
cultural organizations, and different depart-
ments and programs at UCLA, including but not
limited to the Departments of Anthropology, Art
History, Chemistry and Biochemistry, Earth and
Space Sciences, and Materials Science and Engineering, and the Interdepartmental Pro-
gram in Archaeology.

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate
Division website, http://grad.ucla.edu/gasaa
/library/pgmqrintro.htm. In many cases, more
detailed guidelines may be outlined in announ-
cements, other publications, and websites
of the schools, departments, and programs.

Graduate Degree

The Conservation of Archaeological and Ethnographic
Materials Program offers a Master of Arts (M.A.) degree in Conservation of Archaeo-
logical and Ethnographic Materials.

Conservation of Archaeological and Ethnographic
Materials

Graduate Courses

M210. Cultural Materials Science II: In Vitro Microscopy and Microanalysis. (4) Same as Materi-
als Science CM212.) Lecture, three hours; laboratory,
two hours. Preparation: general chemistry, or inorgan-
ic and organic chemistry. Methodology of sampling
and microanalysis of cultural materials for study of
their morphology, microstructure, and composition by
applying in vitro optical, chemical, and instrumental
methods. Topics include optical and electron micros-
copy, X-ray and electron spectroscopy, X-ray diffra-
c tion, infrared spectroscopy, chemical spot tests, and
chromatography. Hands-on experience through ob-
ject-based problem-solving approach. Practical skills
acquired on sampling and sample preparation meth-
ods of cultural materials and on analysis of microsam-
pies using basic instruments for characterization of
organic and inorganic compounds. Letter grading.

M215. Cultural Materials Science III: In Situ Non-invasive Diagnostic Investigations and Documenta-
tion. (4) Same as Art History M204A.) Seminar, two
hours; laboratory, three hours. This course in science
is about understanding chemistry and technolo-
gy of cultural materials and processes of deterioration

The aim of the program is to provide students with
a solid educational base and practical training in the conservation of both archaeolog-
and exploration of means to preserve these materials through application of technologies and knowledge from physical sciences and engineering. Introduc-
to first steps of scientific analysis and documentation of cultural materials for development of risk assess-
ments by examining noninvasively their surface, sub-
surface, and interior. Topics include digital photogra-
phy, current imaging techniques, (visible and infrared spectrum range), and portable spectroscopic methods for non-
invasive material analysis at molecular and elemental level. Practical skills to use basic portable noninvasive techniques and instrumentation in field and laboratory and to appreciate potential con-
tribution of more advanced imaging and spectroscop-
tical tools. Letter grading.

M216. Examination of Conservation Materials and Methods I. (4) (Same as Materials Science M216.) Seminar, one hour; laboratory, three hours. Recommended requisite: Materials Science 104. Introduction to physical, chemical, and mechanical properties of conservation materials (employed for preservation of archaeological and cultural materials) and their ag-
ing characteristics. Science and application methods of traditional organic and inorganic systems and intro-
duction of novel technology based on biomineraliza-
tions and processes and nanostructured materials. Letter grading.

220. Seminar Methods in Archaeology and Conserva-
tion: Readiness, Response, and Recovery. (4) Lecture, two hours; laboratory, three hours. Overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials from field and logistical situations (rescue expedi-
tions, disasters, conflicts), with emphasis on readi-
ness, first aid response, and recovery. Readiness fo-
cuses on preparedness and preventive measures, in-
cluding reburbals, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers de-
velopment of on-site emergency risk assessments to evaluate threats and putting triage theory into prac-
tice, salvage rescue operations, emergency tempo-
rary in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transpor-
tation, and storage. Emphasis on finding practical so-
lutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Letter grading.

222. Conservation and Ethnography. (4) Laboratory, four hours. Designed for graduate conservation students. Introduction to work as conservators with in-
digenous repositories housing cultural collections. Students learn different models for tribal museums and cultural centers, and importance of material se-
lection and properties in baskets they are treating. Letter grading.

224. Issues in Preservation and Management of Archaeological and Cultural Sites. (4) Seminar, three hours. Designed to offer practical model of pres-
ervation and management planning for heritage sites that reflect real case-study scenarios. Adaptive man-
agement planning following iterative processes for sustainable heritage preservation addressing threats and challenges such as climate change and global warming, conflicts, and neglect. Consideration of signi-
ficity of cultural landscape sites and role of site-
holders. Investigation of methods of evaluation of physical condition and development of risk assess-
ments to address physical risks in milieu of site pres-
ervation management, including visitors’ organization, urban development, socioeconomic growth, and tour-
ism development. Letter grading.

230. Deterioration and Conservation of Inorganic Materials I: Ceramics and Glass. (4) Seminar, one hour; laboratory, two hours. Required of graduate study; Archaeology C210. Introduction to deterioration and conservation of ceramics and glass. Discussion of environ-
mental parameters affecting survival of ceramics, types of materials, and aesthetic or functional aspects that glass and ceramics can reflect the age and nature of frits and faience deterioration. Evaluation of use of conservation materials in joining, gap-filling, and restoration of ceramics and experience in their use provided. Letter grading.

232. Deterioration and Conservation of Organic Materials I. (4) Seminar, two hours; laboratory, three hours. Requisite: Archaeology C210. Designed for graduate conservation students. Recognition and characterization deterioration problems found in organic materials from archaeological and ethnographic con-
texts and introduction to typical treatments used his-
torically, and properties of these materials. Material focus on bone, ivory, shell, horn, tortoise shell, leath-
er, and plastics and rubber. Letter grading.

234. Deterioration and Conservation of Inorganic Materials II: Stone and Metals. (4) Seminar, two hours; laboratory, four hours. Designed for graduate conservation students. Introduction to deterioration and conservation of metallic artifacts, composite ob-
jects containing metals, and stone objects. Corrosion of ancient metals and their deterioration processes, conservation, problems in stability, issues with com-
posite objects, aspects of conservation of stone ob-
jects, their deterioration, and stabilization, cleaning, joining, and gap-filling. Ethical issues of restoration of small stone sculpture. Letter grading.

M236. Deterioration Process and Conservation of Archaeological and Cultural Materials: In Situ and Ex Situ Architectural Decorative Surfaces. (4) (Same as Art History M233F and Materials Science M215.) Seminar, two hours; laboratory, three hours. Requisites: courses M216 (or Materials Science M216) and M250 (or Art History M203 or Materials Science M215). Deterio-
ration processes (both natural and man-made) of in situ and ex situ architectural and cultural decorative surfaces (mainly rock art, wall paintings, polychrome sculpture, and metal objects) and materials (e.g., soils and metallic materials) and their ag-
saics) and on solutions to mitigate, pacify, or arrest decay mechanisms based on preventive, passive, and remedial solutions (latter based on minimum interven-
tion). Sessions include holistic approaches to preserva-
tion of architectural sites; hydrology of sites; origi-
ning and damaging effects of salts; biodegradation; chemical and mechanical weathering, earthquakes, frost, and severe pollution. Emphasis on developing scient-
al repairs, cleaning, and desalination; sheltering and limited accessibility; fixing, consolidation, and protec-
tive surface treatments. Letter grading.

238. Deterioration and Conservation of Organic Materials II. (4) Seminar, two hours; laboratory, three hours. Requisites: course C232, Archaeology C210. Designed for graduate conservation students. How to recognize characteristic deterioration problems found in organic materials from archaeological and ethnographic contexts and introduction to typical treatments used historically and currently for these materials. Materials focus on bone, ivory, shell, horn, tortoise shell, leath-
er, and animal fibers, feathers, and quills. Letter grading.

239. Conservation of Inorganic Materials III: Met-
als. (4) Seminar, 90 minutes; laboratory, four hours. Introduction to conservation problems of metallic arti-
facts made of iron, steel, cast iron, gold, zinc, and alu-
minum that have some importance in ethnographic objects. Discussion of problems in conservation treat-
ment of composite metal-organic artifacts, along with practical work on metallic artifacts. Letter grading.

M240. Environmental Protection of Collections. (4) (Same as Information Studies M238.) Lecture, two hours; laboratory, two hours. Required of graduate conservation students. Review of environmental and bio-
logical agents of deterioration, including light, tem-
perature, relative humidity, pollution, insects, and fun-
gi. Emphasis on monitoring to identify agents and un-
derstanding of materials sensitivities, along with pro-
tective measures for collections. Letter grading.

241. Deterioration and Conservation of Organic Materials III. (4) Seminar, two hours; laboratory, three hours. Requisites: courses 232, 238, Archaeology C210. Designed for graduate conservation students. How to recognize characteristic deterioration prob-
lems found in organic materials from archaeological and ethnographic contexts and introduction to typical treatments used historically and currently for these materials. Materials include wood, gourd, paper, bark, and barkcloth. Letter grading.

242. Managing Collections for Museums, Librar-
ies, and Archives. (4) Lecture, two hours; activity, two hours. Designed for graduate conservation stu-
dents. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Letter grading.

M246. Ancient and Historic Metals: Technology, Microstructure, and Corrosion. (4) (Same as Mate-
rials Science CM233.) Lecture, two hours; laboratory, 90 minutes. Designed for graduate conservation and materials science students. Processes of extraction, alloying, surface patination, metallic coatings, corro-
sion, and microstructure of ancient and historic met-
als. Extensive laboratory work in preparation and ex-
amination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Practical instruction in metallographic microscopy. Ex-
ploration of phase and stability diagrams of common alloying systems and environments and analytical techniques appropriate for examination and charac-
terization of metallic artifacts. Letter grading.

M250. Techniques and Materials of Archaeologi-
cal and Cultural Materials: In Situ and Ex Situ Ar-
chitectural Decorative Surfaces. (4) (Same as Art History M203F and Materials Science M215.) Semi-
nar, two hours; laboratory, three hours. Requisite: course M210 or Materials Science M216 or C112. Recommended requisite: course 232 or Materials Science M216. Designed for graduate conservation and art history students. Principles of ar-
cheological conservation of in situ and ex situ monu-
mental archaeological and cultural materials, with fo-
cus on rock art, wall paintings, polychrome sculpture, decorative architectural elements, and mosaics, through study of their constituent material and tech-
iques in context of their geographical and chronologi-
cal occurrence, technological developments, physical, and conservation history, and physical location. Lect-
tures, seminars, and case-study presentations, muse-
um and site visits, hands-on laboratory experience, and supervise
times literary and visual documentation as well as survey of archaeological and conservation records, scientific data, and ancient treatments. Letter grading.

251 Contemporary Development in Conservation. (4) Seminar, two hours. Designed for graduate con-
servation students. Seminar series of invited interna-
tional experts in archaeological and ethnographic conservation, who address contemporary issues in conservation of cultural materials. Letter grading.

596. Directed Individual Studies. (2 to 6) Tutorial, seven hours. Limited to graduate conservation stu-
dents. Individual guided studies that may include con-
servation research and/or surveys or treatment proj-
ects carried out at Villa laboratories or at local collec-
tion or analytical facility. To be arranged with program faculty members, and supervision may be shared be-
tween faculty members and outside specialists. Letter grading.

598. M.A. Thesis Preparation. (2 to 12) Tutorial, two hours; laboratory, one hour. Development of research paper on conservation topic or treatment-based in-
vestigation that can be theoretical in scope or practi-
cally oriented. Letter grading.

DANCE
See World Arts and Cultures/Dance

DENTISTRY
School of Dentistry
UCLA
A0 - 111 Dentistry
Box 951762
Los Angeles, CA 90095-1762
(310) 825-9789
http://www.dentistry.ucla.edu
Scope and Objectives

The Department of Design | Media Arts offers the following courses for general campus students. Dentistry 199 and 199H are individual special studies courses for UCLA undergraduates with definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at (310) 825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members.

Dentistry

Upper Division Courses

199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required reading assignments or laboratory work leading to final oral or written examination. May be repeated for maximum of 16 units. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required paper submitted at end of course in addition to final examination (paper to be of publication quality as judged by course mentor). May be taken for maximum of 8 units. P/NP or letter grading.

Graduate Courses


441C. Introduction to Healthcare. (2) Lecture, two hours: Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

Professors
Rebecca Allen, M.S.
Mark H. Hansen, Ph.D.
Erkki I. Huhtamo, Licensiate in Philosophy
Robert A. Israel, M.F.A.
Willem Henri Lucas, B.A.
Peter B. Lundenfeld, Ph.D.
Rebecca Mendez, M.F.A.
Vasa V. Mihich
Christian A. Moeller, Dipl. – ING
C.E.B. Reas, M.S.
Jennifer J. Steinkamp, M.F.A.
Victoria Vesna, M.F.A., Ph.D.

Graduate Study

The Department of Design | Media Arts offers the Bachelor of Arts and Master of Fine Arts degrees. The B.A. degree focuses on visual communication design, with emphasis on digital media. The M.F.A. degree focuses on media arts. These uniquely challenging programs invite students to balance aesthetic sensibility with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective.

The undergraduate program begins with the study of basic design elements and processes: form, color, drawing, letterforms and typogaphy, motion, and interactivity. Historical perspectives and social issues are also introduced. At the upper division level, studio courses explore current uses of interactive media and new directions in visual communication design, including the study of time and motion, as well as virtual form and space in computer-generated environments. Through a balance of courses in theory, criticism, and practice, students develop an understanding of design principles. Most courses are taught as studios of no more than 20 students, which encourages individual growth and fosters a sense of community within the department.

The two-year Master of Fine Arts (M.F.A.) program fosters mature, professional-quality work utilizing the most current technologies in the field of media arts. The program focuses on developing an individual thesis project that incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work.

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department’s equipment combines high-end PC and Macintosh computers with facilities for sound and video editing.

The Department of Design | Media Arts reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

Undergraduate Study

The Design | Media Arts major is a designated capstone major. Students are required to complete an advanced project of their own that entails full engagement with the design process. Through their capstone work, students demonstrate their capacities for research, ideation/concept development, creative and design direction, communication strategy, design, production/fabrication, and critical analysis. Capstone courses focus on career choice, and final projects are showcased at the spring Senior Show.

Design | Media Arts B.A.

Capstone Major

Preparation for the Major

Required: Design | Media Arts 8, 10, 21, 22, 23, 24, 25, 28.

The Major

Required: Eleven upper division courses, including Design | Media Arts 101, 104, 153, 154, 157, 161, 163, two courses selected from 160, 171, 172, 173, and two capstone courses selected from 159A, 159B, 159C.

It is recommended that students have each term’s program approved by the departmental adviser.

Note: Consult the Schedule of Classes for courses limited to majors only.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/program/prgreqintro.htm. 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 the Master of Fine Arts (M.F.A.) degree in Design | Media Arts.

Design | Media Arts

Lower Division Courses

1. Graphic Design. (2) Studio, 30 hours. Limited to high school students. Basic and advanced photography skills using digital cameras. Alteration/manipulation of photos using techniques from latest version of Adobe Photoshop. Uploading of images on Web or in print. Production of digital and print portfolio of student work. Field trips to surrounding West Los Angeles locales to shoot photos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

2. Web Design. (2) Studio, 30 hours. Limited to high school students. How Web design works: basic hand coding and creation of personalized hompages with
Macromedia Director and Flash software. Photograph scanning and manipulation of images in Adobe Photoshop. Current Web design trends. Visitation of various Web pages to analyze successful use of Web design and understand enormous potential of Internet. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

3. Game Design. (2) Studio, 30 hours. Limited to high school students. Design and creation of student digital games, beginning with storyboard and learning how to transform concepts to game design. Development and creation of various mini-games using software available at testing stations. Students work with experienced instructors to help guide students in creating their own game designs. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

4. Audio Video Design. (2) Studio, 30 hours. Limited to high school students. Creation of storyboard for short documentary, commercial, or music video. Students design and build their own work by learning fundamentals of preproduction and postproduction using latest digital software, Adobe Premiere and After Effects, to create their work. Burning of DVD of finished production. Visitors from professional video producers to help guide students in creating their own videos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

5. Introduction to Design | Media Arts. (4) Studio, 40 hours. Limited to high school students. Two-week summer course designed to meet needs of high school students interested in exploring their creative potential by working within fields of design media arts, with focus on concepts of narrative and storytelling. Introduction to and exploration of a variety of media such as graphic, web, game, and video design with goal of combining and integrating technology and art to express ideas and realize their narrative projects. Students work with most current software and technology in each discipline area, developing diverse skill sets while cultivating conceptual capabilities around storytelling project, and with experienced instructors and professionals in field to develop projects utilizing this comprehensive and integrative approach. Culminates in portfolios that may be used for college applications. Possible field trips. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

6. Art/Science and Technology Studio/Laboratory. (4) Studio/laboratory, 40 hours. Limited to high school students. This studio course, including lectures, required screenings, laboratory visits, field trips, and outside study, Exploration of creative aspects of scientific research and innovation to gain broad understanding of impact of science on contemporary art and popular culture, with focus on new sciences of biotechnology and nanotechnology. Development of proposals and ideas that could serve as prototypes for either art projects or scientific research study. P/NP grading.

7. Media Histories. (5) Lecture, three hours; outside study, 12 hours. Synthetic overview of optical media and aesthetic movements covering past two centuries: Preindustrial/Industrial/Modernist (1850 to 1900), cinema and modernism (1900 to 1950), television and postmodernism (1950 to 2000), and digital media and unmodernism (2000 to 2050). How such movements can inform generative work and how understanding these media becomes essential in emerging era of digital humanities. P/NP or letter grading.

8. Art/Science, and Technology. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lecturers. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

9. Design Culture. (5) Lecture, three hours; outside study, 12 hours. Open to nonmajors. Understanding design process, with emphasis on development of visual language, study of historic, scientific, technological, economic, and cultural factors influencing design in physical environment. P/NP or letter grading.

10. Video. (5) Formerly numbered 153A. Studio, six hours; outside study, nine hours. Production of video projects. Use of video technology (video systems, cameras, displays, editing, and storage) to integrate image, sound, time, and motion. Emphasis on expression, continuity, and sequential patterns for video communication. P/NP or letter grading.

14. Word and Image. (5) Formerly numbered 154A. Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Enforced prerequisite: course 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four aspects of game design: rule design, game balance, multipurpose player, strength, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

15. Game Design. (Formerly numbered 157A.) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Enforced prerequisite: course 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four aspects of game design: rule design, game balance, multipurpose player, strength, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

159A-159B-159C. Capstone Senior Project. (5-5-5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Enforced prerequisite: course 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four aspects of game design: rule design, game balance, multipurpose player, strength, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

160. Special Topics in Design | Media Arts. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and minor courses. Selected topics in design and media arts explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Only 10 units may be applied toward area studies. Letter grading.
and oral presentations. Topics announced in advance. May be repeated for maximum of 10 units. Letter grading.

173. Topics in Visual Communication and Image. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and major courses. Limited to seniors. Selected topics in visual communication and image explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 10 units. Letter grading.

195A-195B. Community or Corporate Internships in Design | Media Arts. (2-4) Tutorial, six and 12 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business related to design. Students meet on regular basis with instructor and provide periodic reports of their experience. Courses 195A and 195B may be repeated for combined maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Design | Media Arts. (4) Tutorial, two hours. Preparation: 3.0 grade-point average overall. Limited to juniors/seniors. Development and completion of honors research project and supervision of research project under direct supervision of faculty member. May be repeated once for credit. Individual contract required. Letter grading.

199. Directed Research in Design | Media Arts. (2 to 8) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be taken for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Design | Media Arts Faculty Seminar. (2) Seminar, two hours. Limited to graduate design | media arts students. Designed to familiarize new graduate students with departmental faculty members and their creative work and research to help students select their faculty advisors. S/U grading.

207. Mathematical Techniques in Design and Media Arts I. (4) Lecture, three hours. Designed for graduate students. Survey of mathematical techniques used in design and computation theory. Sets, relations, functions, graph and discrete structures. May be repeated for credit with consent of adviser. S/U or letter grading.

208. Mathematical Techniques in Design and Media Arts II. (4) Lecture, three hours. Designed for graduate students. Survey of mathematical techniques used in design and computation theory. Topology of plane, real and complex analysis, measure and integration, Fourier analysis and group theory. May be repeated for credit with consent of adviser. S/U or letter grading.

218. Design | Media Arts Faculty Seminar. (2) Seminar, three hours. Designed for graduate design | media arts majors. Emphasis on preparation for major and major courses. May be repeated for credit with consent of adviser. S/U grading.

224. Introduction to Geometric Modeling. (4) (Formerly numbered CM242.) (Same as Architecture and Urban Design M227B.) Lecture, three hours; outside study, nine hours. Requirement: course M241 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.


252A. Programming Media 1. (3) Studio, three hours; outside study, six hours. Limited to majors. Introduction to computer programming within context of art and design. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercises balance concept and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, building two- and three-dimensional graphs, file I/O, color models, and image processing. Letter grading.

252B. Programming Media 2. (3) (Formerly numbered CM252B.) Studio, three hours; outside study, six hours. Requirement: Programming Media 1. Limited to majors. Exploration of use of electromechanical actuators and sensors, custom interface design, microcontroller programming, and building hybrid and interactive physical artworks. Practical electronics theory, programming for embedded systems, two-dimensional and three-dimensional CAD, basic milling, laser cutting, manufacturing, circuit building, and other sculptural electronics fabrication techniques. Letter grading.

256. Interactive Environments. (4) Lecture/studio, six hours. Requisites: courses 201 or 202, 254. Designed for graduate design | media arts majors. Emphasis on comprehension of fundamental principles of interactivity and networked environments. May be repeated for credit with consent of adviser. Letter grading.


259. Design | Media Arts Seminar. (4) (Same as Statistics M259.) Seminar, six hours. Requisites: courses 254, 256. Through expanded use of telecommunication networks and general advancement of data collection technologies, almost every aspect of our lives can be "rendered in" data. Contemplation of use of data in creation of media art and examination of each step in process of data collection, analysis, and representation. Topics include databases and data warehousing, exploratory analysis and visualization, clustering and clustering algorithms, finding patterns and data mining algorithms. Exploration, through discussions, of fundamental concepts like complexity and randomness. Techniques that organize data, search for patterns, and create meaningful and/or expressive representations. Letter grading.

269. Graduate Seminar. (4) Seminar, four hours. Designed for graduate design | media arts majors. Survey of critical theories in media art and design. Critical examination of the work of faculty members and guest experts. May be repeated for credit with consent of adviser. Letter grading.

270. Media Arts Theory. (5) Lecture, three hours. Requirement: Design | Media Arts. Topics discussed include media arts in general and the rapidly emerging phenomenon within wider field of contemporary art, yet has been theorized fairly little. While there are numerous books chronicling its past and present forms, there is much less writing about its theoretical and aesthetic underpinnings. Uncertainties begin with concept itself: what is actually meant by media arts? Letter grading.

271. Media Archaeology. (5) Lecture, three hours. Requirement: course CM206. Media archaeology is emerging approach within media studies, aiming to excavate little known or misrepresented media cultural phenomena of past, shedding light on apparatus that have been overlooked and/or suppressed by hegemonic versions of media history. Letter grading.

272. Introduction to Art I. Science. (5) Seminar, three hours. Requirement: course CM206. For past 50 years artists have increasingly moved from being inspired by scientific innovation and discovery to actually collaborating with scientists and even resulting in work being done in science laboratories. History of science in relation to artists’ interpretation of scientific work to current works that are created in response to recent developments in biotechnology and nanotechnology. Letter grading.

287. Form and Structure. (2 to 8) Studio or seminar, to be arranged. Exploration of form, with emphasis on expression in various art forms. 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 maximum of 8 units. Letter grading.

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

403. Graduate Critique. (2) Seminar, three hours; outside study, three hours. Limited to first- and second-year departmental graduate students. Students meet with instructor in small classroom setting to exchange ideas through presentation of current projects and research, discussion, research papers, and reports. Instructors may invite visiting critics to contribute. May be repeated for credit. S/U grading.

404. Graduate Tutorial. (3) Tutorial, three hours; outside study, six hours. Limited to first- and second-year departmental graduate students. Development of body of work while working toward M.F.A. degree, with one-to-one interaction between students and faculty members. May be repeated for credit. Letter grading.

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Focus for first-year teaching assistants for discussion and exploration of teaching pedagogy and classroom mechanics. Problems and practices of teaching design at college level, as well as role of teaching assistants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. 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.

598. M.A. Research and Thesis Preparation. (4 to 12) Seminar, to be arranged. Designed for second-year M.A. students. May not be applied toward minimum graduate course or unit requirements for M.A. degree. May be repeated for credit. S/U grading.
Digital Humanities
Interdisciplinary Minor
College of Letters and Science

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Christopher Johanson, Ph.D. (Classics)
Peter B. Lunenfeld, Ph.D. (Design | Media Arts)
Todd S. Presner, Ph.D. (Comparative Literature, Germanic Languages)
Janice L. Reiff, Ph.D. (History, Statistics)
Willeke Z. Wendrich, Ph.D. (Near Eastern Languages and Cultures)

Scope and Objectives
The Digital Humanities minor is an interdisciplinary minor that studies the foundations and futures of the digital world. Digital humanities interprets the cultural and social impact of the new information age as well as creates and applies new technologies to answer cultural, social, and historical questions, both those traditionally conceived and those enabled by new technologies. The interdisciplinary curriculum draws on faculty members from more than 15 departments, five schools, and three research centers at UCLA. It places project-based learning at the heart of the curriculum, with students working in collaborative teams to realize digital research projects with real-world applications. Students use tools and methodologies such as three-dimensional visualization, data-mining, network analysis, and digital mapping to conceptualize and advance research projects. Students have the opportunity to make significant contributions to scholarship in fields ranging from archaeology and architecture to history and literature. By preparing students to be active participants in the design and production of new knowledge, the minor emphasizes the critical thinking skills, creativity, and collaborative methodologies necessary for success in the digital information age.

Undergraduate Study

Digital Humanities Minor

The Digital Humanities minor is intended to provide students with literacy in creating, interpreting, and applying the technologies of the digital world. It examines the cultural and social impact of new technologies and enables students to harness these technologies to develop their own research projects in a wide range of fields. To apply for the minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor and enumerating any digital projects that they have already undertaken. On acceptance to the minor, students are expected to identify an academic area of digital humanities in which they intend to concentrate. Information about the minor is available at http://www.digitalhumanities.ucla.edu. To submit an application for the minor, see the website and click on DH Minor.

Required Lower Division Course (4 to 6 units):

Required Upper Division Courses (27 to 30 units):
Digital Humanities 101, 194, 195 or 196, 198 or 199, and three elective courses selected from Ancient Near East M101C (or Art History M101C), 125A, M125B (or Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), 162, C165, CM169 (or Anthropology CM110Q), Anthropology M146S, Anthropology M153, Applied Linguistics C115B, Architecture and Urban Design 132, Armenian C153, Art History C119C, C119D, Classics 164, 166B, Design | Media Arts 104, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavian C133A, C171, Society and Genetics 131, 175, Spanish 130, 150, 170, Urban Planning 129, 141. Variable topics courses may be taken as topics apply. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two upper division courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program. Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Digital Humanities
Upper Division Courses

101. Introduction to Digital Humanities. (5) Lecture, four hours; discussion, one hour. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-historical methodology to focus on rise of new media and information technologies in 19th, 20th, and 21st centuries, such as photography, film, radio, television, Internet, and World Wide Web and their impact on how individuals, groups, and cultures experienced their worlds.
Letter grading.

150. Advanced Topics in Digital Humanities. (4) Seminar, three hours. Requisite: course 101. Introduction to advanced research methods or thematic issues in digital humanities such as database and visualization technologies, social media technologies, application programming interfaces, and digital mapping to acquire familiarity with particular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area.
Letter grading.

194. Research Group Seminars: Digital Humanities. (2) Seminar, two hours. Requisites: course 101, completion of two other minor courses. May be taken concurrently with course 195 or 196. Designed for undergraduate students who are part of research group. Discussion of research methods, tools, and current literature in field or of research of faculty members and students. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Digital Humanities. (4) Tutorial, two hours; fieldwork, eight hours. Limited to juniors/seniors. May be taken concurrently with course 194. Internship in supervised setting in community agency or business.
Placements to be arranged by instructor. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

196. Research Apprenticeship in Digital Humanities. (4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

198. Honors Research in Digital Humanities. (4) Tutorial, one hour. Requisite: course 194. Limited to juniors/seniors. Directed research paper or project that demonstrates significant research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Digital Humanities. (4) Tutorial, one hour. Requisite: course 194. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Digital Humanities. (5) Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its beginning in post-World War II era to present, highlighting major intellectual problems, disciplinary paradigms, and institutional challenges that are posed by digital humanities. Examination of major epistemological, methodological, theoretical, and institutional challenges posed by digital humanities through number of specific projects that address fundamental problems in creating, interpreting, preserving, and transmitting human cultural record. How digital technologies and tools, ranging from map visualizations and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, three hours. To be arranged with faculty member who directs study or research. S/U or letter grading.

Disability Studies
Interdisciplinary Minor
College of Letters and Science

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Helen Deutsch, Ph.D. (English)
Rachel C. Lee, Ph.D. (English, Gender Studies)
Victoria E. Marks, B.A. (World Arts and Cultures/Dance)

Disability Studies / 271
Scopes and Objectives

The Disability Studies minor introduces undergraduate students to the emerging interdisciplinary field of disability studies, offering a new lens for thinking about the body, society, and culture. The marginalization phenomenon at the center of our experience, transforming what is often misconceived as an abnormality of daily life into one of its most basic realities. Faculty members from applied fields in the professional schools (e.g., education, law, medicine, nursing, public health, public policy, and urban planning) collaborate with faculty from academic disciplines across the College of Letters and Science and the School of the Arts and Architecture (e.g., anthropology, English, history, linguistics, psychology, and world arts and cultures) to provide a critical framework for questioning and connecting topics related to disability in these established disciplines.

Through a core course, carefully selected electives, a required two-term internship or research apprenticeship, and a senior capstone project, students in the minor obtain both breadth and depth in their understanding of the concept and practical implications of disability. 

Undergraduate Study

Disability Studies Minor

To enter the Disability Studies minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay expressing their interest in pursuing the minor. To help plan the internship and course schedule, students are expected to work closely with the minor’s academic advisor. Applications are available and must be filed with the Undergraduate Education Initiatives Office, A265 Murphy Hall. For information and questions, e-mail disabilities@college.ucla.edu or call (310) 825-3223.

Required Upper Division Courses (13 to 15 units): Disability Studies 101 and two elective courses selected from Anthropology 147, M148, Asian American Studies M117, Community Health Sciences 100, 132, Disability Studies 102, M121, M130, M139, M157, Education 132, English 180, Gender Studies M121, Gerontology M119O, History 179A, Honors College 142, Linguistics C135, Nursing C158, Psychiatry and Biobehavioral Sciences M180, Psychology M107, M119O, 129C, 132A, 133I, M140, M150, Social Welfare M140, Sociology M148, Spanish M165SL.

Required Upper Division Internship/Apprenticeship Courses (9 units): Two consecutive terms of internship or research apprenticeship (Disability Studies 195CE or 196) in a community-based agency that provides services or support for persons with disabilities or in an institution or agency at the local, state, or federal level responsible for policy on disability issues or collaboration on a research project focused on an area of disability studies scholarship. Internship credit for students participating in the UC Center Sacramento (UCCS) program or the Center for American Politics and Public Policy (CAPP) program may be substituted by petition and is subject to approval by the faculty committee.

Required Upper Division Capstone Courses (8 to 10 units): Disability Studies M194 with a grade of B or better, and 198 or 199. Prior to enrolling in course 198 or 199, students must complete Disability Studies M194 and all other requirements for the minor.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students complete the capstone experience under the guidance of a faculty sponsor and enroll in either Disability Studies 198 or 199 in the final term of the minor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee for the minor.

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

No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Disability Studies

Upper Division Courses

101. Perspectives on Disability Studies. (3) Seminar, three hours. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around productive and central tension in disability studies — between disability’s lived situation and the theoretical framework that is both individual and communal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Letter grading.

102. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate incidence of violence committed against people with disabilities, whether specifically as form of hate crime or based on dependency and/or vulnerability that accompanies some types of disability, (2) study of role of disability and particularly mental illness in representations of criminality and violence, and (3) disablement or emergent disability (injuries, illnesses, and impairments created by social inequity) as consequence of intersecting forms of racial, gender, sexual, and class subordination, or as result of state or interpersonal violence. Consideration of possible coalition-based strategies for challenging systemic subordination and prospects for improving disability-consciousness across social movement efforts and campaigns. P/NP or letter grading.

M130. Disability Policy and Services in Contemporary America. (4) (Same as Gerontology M165 and Social Welfare M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead such lives. Who are people with disabilities in contemporary America? How has U.S. responded over time to various demands made over time by disability advocates? How are policies and options for people with disabilities, young and old? What demands have been made over time by disability advocates? How has government addressed demands of advocates for various disabilities? In this class, we know about extent to which public policies and programs are responsive to people in need? How do demographics, economics, and politics continue to influence evolving public policy responses? P/NP or letter grading.

M139. Perspectives on Autism and Neurodiversity. (4) (Same as Psychology M139.) Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural phenomenon from its historical roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material sourced from various fields invested in autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and critical autism studies. Students encounter and analyze multiple perspectives on autism and put them in conversation with one another. Attention paid to how people on spectrum define, explain, and represent their own experiences of autism and discussion of what implications of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

M148. Sociology of Mental Illness. (4) (Same as Sociology M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psychological models of madness. Study of social processes involved in production, recognition, labeling, and treatment of mental illness. P/NP or letter grading.
M157. Rechoereographing Disability. (Same as Dance M157.) Seminar, four hours. Through study of range of performance by, featuring, or about people who identify as disabled, reading and discussion of range of writing about experiences of disability and process of making work about disability by key artists and thinkers, introduction to concept of choreography as political/cultural idea broadly defined as movement and organization and behavior of bodies, as well as choreography as poetic form for expression of ideas, creativity, or product. Viewing and discussion of work, and embodying ideas through movement and dance-making. P/NP or letter grading.

M194. Capstone Research Seminar. (2) (Same as Civic Engagement M194.) Seminar, two hours. Enforced prerequisite: course 195CE. Required of students pursuing Disability Studies minor. Integration of off-campus work with academic theories and concepts within field of disability studies. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

195CE. Community and Corporate Internships in Disability Studies. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship opportunities in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.


198. Honors Research in Disability Studies. (6 to 8) Tutorial, one hour. Enforced prerequisite: course M194. Limited to juniors/seniors. Required capstone course to Disability Studies minor for students pursuing College Honors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Senior Project in Disability Studies. (6 to 8) Tutorial, one hour. Enforced prerequisite: course M194. Limited to juniors/seniors. Required capstone course to Disability Studies minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Craig E. Manning, Ph.D., Chair

Professors
Vassiliki Angelopoulou, Ph.D.
Paul M. Davis, Ph.D.
T. Mark Harrison, Ph.D.
Raymond V. Ingersoll, Ph.D.
David C. Jewitt, Ph.D.
Craig E. Manning, Ph.D.
Kevin D. McKeehan, Ph.D.
William I. Newman, Ph.D.
David A. Paige, Ph.D.
Gilles F. Peltzer, Ph.D.
Edward J. Rhodes, Ph.D.
Bruce N. Runneger, Ph.D.
Christopher T. Russell, Ph.D.
J. William Schopf, Ph.D.
Gaylord Schubert, Ph.D.
Laurence C. Smith, Ph.D.
Raymond J. Walker, Ph.D., in Residence
John T. Wasson, Ph.D.
An Yin, Ph.D.
Edward D. Young, Ph.D.

Professors Emeriti
Orson L. Anderson, Ph.D.
Peter Bird, Ph.D.
Friedrich H. Busse, Ph.D.
Donald Carlisle, Ph.D.
Paul J. Coleman, Jr., Ph.D.
Wayne A. Dolski, Ph.D.
Claire A. Hall, Jr., Ph.D.
David D. Jackson, Ph.D.
Isaac R. Kaplan, Ph.D.
Margaret G. Kivelson, Ph.D.
Robert L. McPherron, Ph.D.
Arthur L. Montana, Ph.D.
Gerhard Gertel, Dr. rer. nat.
Walter E. Reed, Ph.D.
John L. Rosenfeld, Ph.D.
Ronald L. Shreve, Ph.D.

Associate Professors
Jonathan M. Aurnou, Ph.D.
Abby Kayner, Ph.D.
Jean-Luc C. Marquet, Ph.D.
Edwin A. Schauble, Ph.D.
Alex K. Schmitt, Ph.D., in Residence

Assistant Professors
Caroline D. Berghein, Ph.D.
Jonathan L. Mitchell, Ph.D.
Ulrike Seibl, Ph.D.
Aradhna K. Tripati, Ph.D.

Adjunct Professors
Paul M. Merfield, Ph.D.
Mark B. Moldwin, Ph.D.

Scope and Objectives
The disciplines of geology, geochemistry, geophysics, paleobiology, and space physics are concerned with the structure and evolution of the solar system, Earth, and life; essentially, the physical environment and its interaction with biota. These studies entail the application of fundamental physics and chemistry to a broad subject area stretching from astronomy at one extreme to biology at the other. Areas that are emphasized at UCLA include isotope and trace element analyses, petrology and mineralogy, sedimentology, paleobiology, and organic geochemistry, structural geology and tectonophysics, seismology, the Earth’s interior, planetary physics, and space plasmas.

The variety of techniques applied lead to several concentrations within the five main disciplines. Students completing their studies with a B.S. or M.S. degree usually are employed in industry. Many are employed in environment-related activities; others are involved in mineral or oil exploration or in construction. Students attaining the Ph.D. degree are usually employed by universities or governmental and industrial research groups.

The Bachelor of Arts program in Earth and Environmental Science is intended to provide a broad background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health. Those who intend to become professional geomorphologists, geochronists, 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
All of the majors offered in the Earth and Space Sciences Department are designated capstone majors. While the specific nature of the capstone experience varies by major, students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Earth and Environmental Science B.A.

Capstone Major

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 5, 6; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 1; Mathematics 3A, 3B, and 3C, or 31A and 31B; Physics 1A, 1B, and 4AL, or 20A, 20B, and 6C, or 6AH, 6BH, and 6CH. Each course must be passed with a minimum grade of C–.

Transfer Students

Transfer applicants to the Earth Sciences major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one year of calculus. One introductory biology course with laboratory and one year of calculus-based physics with laboratory are recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissions.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Three courses from Earth and Space Sciences 111, 112, 116, 119; one capstone 199 research course in the senior year; three additional upper division courses from Earth and Space Sciences other than 100; two courses from Geography 100 and 100A, 101 and 101A, 104, 105 and 105A, M107, M109, 110, 120, 121, 124, 125, M127, M131.

EARTH AND SPACE SCIENCES

College of Letters and Science

UCLA

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Earth and Space Sciences / 273
Geology B.S.

Capstone Major

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 51, 61; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 1; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Civil and Environmental Engineering 15 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Each course must be passed with a minimum grade of C-.

Transfer Students

Transfer applicants to the Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one year of calculus. One introductory biology course with laboratory, and one introductory computer programming course are recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Earth and Space Sciences 103A, 103B, 111, 112, 135, 139; Civil and Environmental Engineering 108, 120, 121, 150; one capstone field research course (Earth and Space Sciences 121); one course from Earth and Space Sciences C126, C132, 134, 136C, 137, C141, 150, Civil and Environmental Engineering 128L, 151, 155, Geography 100.

Geology/Paleobiology B.S.

Capstone Major

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 3, 16 or 17, 51, 61; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14CL, or 20A, 20B, 20L, 30A, and 30L; Life Sciences 2, 3, 4; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, and 4AL or 6A and 6B. Each course 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 have completed one introductory Earth sciences course, one introductory biology course with laboratory, two general chemistry courses with laboratory for majors, and one year of calculus. One calculus-based physics course with laboratory is recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Earth and Space Sciences 103A, 103B, 111, 112, 135, 139; Civil and Environmental Engineering 108, 120, 121, 150; one capstone field research course (Earth and Space Sciences 121); one course from Earth and Space Sciences C126, C132, 134, 136C, 137, C141, 150, Civil and Environmental Engineering 128L, 151, 155, Geography 100.

Geology/Engineering Geology B.S.

Capstone Major

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H or 5 or 8 or 9 or 15, 51, 61; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, 1C, 4AL, 4BL, Civil and Environmental Engineering 15 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Recommended: Mathematics 32B. Each course must be passed with a minimum grade of C-.

Transfer Students

Transfer applicants to the Geology/Engineering Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one year of calculus. One introductory biology course with laboratory, and one year of calculus, one introductory computer programming course are recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Earth and Space Sciences 103A, 103B, 111, 112, 135, 139; Civil and Environmental Engineering 108, 120, 121, 150; one capstone field research course (Earth and Space Sciences 121); one course from Earth and Space Sciences C126, C132, 134, 136C, 137, C141, 150, Civil and Environmental Engineering 128L, 151, 155, Geography 100.

Geophysics/Geophysics and Space Physics B.S.

Capstone Major

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H; 9; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL, 17, 18L; Civil and Environmental Engineering 15 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Each course must be passed with a minimum grade of C-.

Transfer Students

Transfer applicants to the Geophysics/Geophysics and Space Physics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one general chemistry course with laboratory for majors, and one year of calculus. A second year of calculus, one year of calculus-based physics with laboratory, and one introductory computer programming course are recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Earth and Space Sciences 103A, 103B, 111, 112, 135, 139; Civil and Environmental Engineering 108, 120, 121, 150; one capstone field research course (Earth and Space Sciences 121); one course from Earth and Space Sciences C126, C132, 134, 137, 139, 153, 154, 155, 205, 265, Physics 112, 115A, 116, 131, 132, Statistics 100A, 100B, or other courses with consent of adviser.

Geophysics/Geophysics and Space Physics B.S.
Honors in Geology or Geophysics

The honors program in geology or geophysics is designed to provide exceptional students with an opportunity for advanced research and study under the tutorial guidance of a faculty member. Requirements for admission to candidacy are the same as those required for admission to the Honors Programs of the College of Letters and Science. Qualified students wishing to enter the program must submit a completed application form to the departmental honors committee near the end of their junior year. Honors in geology or geophysics are awarded at graduation to those students who have a cumulative grade-point average of 3.5, have completed a minimum of two terms (8 units) of Earth and Space Sciences 198 leading to the preparation of a satisfactory honors thesis. Students demonstrating exceptional ability are awarded highest honors.

Earth and Environmental Science Minor

In the Earth and Environmental Science minor students study the interaction of the solid Earth, oceans, and atmosphere with human activities. The minor provides background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health.

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

Required Lower Division Courses (8 units):

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.
2. Earth Science with Fieldwork. (5) Lecture, five hours; laboratory, two hours; two field days. 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. Introduction to field study of selected problems in geologic history. P/NP or letter grading.
3. 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 1F, 1H, 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 geomorphic processes. P/NP or letter grading.
4. Astrobiology. (3) Lecture, three hours; discussion, one hour; two field days. Origin, evolution, distribution, and future of life on Earth and in universe, paralleling major scientific initiatives of NASA. Course material primarily from planetary and Earth science, paleo-
ontology and biology, astronomy, chemistry, and physics, with relatively little from mathematics. P/NP or letter grading.

5. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.


8. Earthquakes. (5) Lecture, three hours; laboratory, one hour; one field day. Causes and effects of earthquakes. Plate motion, frictional faulting, earthquake instability, wave propagation, earthquake damage, and other social effects. Hazard reduction through earthquake forecasting and earthquake-resistant design. P/NP or letter grading.


11G. Field Geology. (2 to 4) Lecture, two hours; laboratory, three hours; fieldwork, one day per week. Designed for graduate students. Geologic mapping, principles of stratigraphy, structural geology, and map interpretation. S/U or letter grading.

12. Structural Geology. (5) Lecture, three hours; laboratory, six hours. Requisites: courses 1, 1B. Recommended: course 1, Planar and linear structures at different scales. Course 2, Crustal dynamics and tectonics. Course 3, Igneous Petrology and igneous petrological and chemical evolution of Earth, moon, and other bodies. Letter grading.

14A and 14B (or 20A and 20B), Mathematics 3A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower division course 1, Earth and space sciences course 2. Intended for junior/senior and graduate physical and biological sciences students. Theoretical aspects of isotope behavior: stable and radiogenic isotopes. Principles of geochemistry. Use of isotopes as tracers in crust and mantle processes. Stable isotopes as indicators of environment and paleoclimates. Concurrently scheduled with course C209. P/NP or letter grading.

tectonic model and its driving mechanisms. Tectonic, igneous, and metamorphic processes at plate boundaries, P/N or letter grading.

120. RubeY Colloquium: Major Advances in Earth Science. (4) Lecture, three hours. Designed for juniors/seniors. Lectures on major advances in Earth science offered by distinguished authorities (including regular faculty members). Supervision of individual and assessment of student performance by faculty member. Content varies from year to year. If laboratory work is required, course 199 must be taken concurrently, P/N or letter grading.

121. Advanced Field Geology. (8) Lecture, one hour (Spring Quarter); fieldwork, five weeks (Summer Quarter). Requisites: courses 61, 103A, 103B, 111, 112. Problems in field geology; preparation of geologic maps and cross-sections; preparation of written and oral reports on field and written summary geological report on selected area. P/N or letter grading.

125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 1 or 1F or 1H. Recommended: course 103A, Physics 1A or 1AH. Types of volcanism. Physics of magma chambers, volcanic plumbing, explosive and effusive eruptions as illustrated by historical examples. Practical methods of volcano monitoring, with field trip. P/N or letter grading.

C126. Advanced Igneous Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Principles of petrogenesis of igneous rocks based on geochemical, tectonochemical, and other geological evidence and principles. Concurrently scheduled with course C226. P/N or letter grading.


133. Historical and Regional Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requisite: course 111. Recommended: courses 103B, 112. Principles of historical geology. Physical evolution of Earth, especially North America. One area of Earth to be investigated in detail, with emphasis on its geologic evolution through time. Letter grading.

134. Computing in Earth and Space Sciences. (4) Lecture, three hours; laboratory, one hour. Preparation: knowledge of Fortran 90 or C++. Requisites: Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 6A, 6B, and 6C. Introduction to students with credit for course 136A. Principles and techniques of graviometric, seismic, magnetic, and other geophysical methods of exploration for ores, petroleum, and other geologic subdisciplines as prescribed. May be repeated for credit. S/U or letter grading.


136C. Field Geophysics. (6) Lecture, three hours; discussion, one hour; laboratory; two hours; fieldwork, 10 hours. Requisite: course 135 or 136A. Application of geophysical, magnetic, electrical, and other geophysical methods to geologic and engineering problems. Practical aspects of geophysical exploration, including planning, data collection, data reduction, and interpretation, with field work on unsolved problems (week-long field trip). P/N or letter grading.

137. Petroleum Geology. (4) Lecture, three hours. Requisites: courses 61, 111. Geology applied to exploration for and production of natural gas and petroleum; techniques of surface and subsurface geology; problems of petroleum geology. P/N or letter grading.

139. Environmental Engineering and Geology. (4) Lecture, three hours; discussion, one hour. Requisite: course 103A. Principles and practice of soil mechanics and foundation engineering in light of geologic conditions, recognition, prediction, and control of movement of subsurface, landslides, earthquakes, and other geologic aspects of urban planning and subsurface disposal of liquids and solid wastes. P/N or letter grading.


C141. Basin Analysis. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 103B, 111. Mechanisms of sedimentary basin development, flexural and thermal subsidence, isostasy, subsidence analysis, quantitative basin modeling, sediment provenance, tectonic settings. Concurrently scheduled with course C241. P/N or letter grading.


152. Physics of the Ocean. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, Physics 1A or 1AH. Crust to core of Earth and physics used to explore it. Isostasy, plate tectonics, mantle convection and geodynamics. P/N or letter grading.

153. Oceans and Atmospheres. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Physics and chemistry of Earth’s oceans and atmosphere; origin and evolution of planetary atmospheres; biogeochemical cycles, atmospheric radiation and climate, energetics and dynamics of oceanic and atmospheric circulation systems. P/N or letter grading.


155. Planetary Physics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Formation of solar nebula, origin of planets and their satellites, comets, asteroids, and meteorites; celestial mechanics and dynamics; physics of planetary interiors, surfaces, and atmospheres. P/N or letter grading.

C156. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum that varies in focus from general geology through lecture and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C260. P/N or letter grading.

158. Fieldwork for Students. (2 to 4) Fieldwork, four hours; laboratory, one hour. Requisite: course 150. Application of remote-sensing techniques to field situations. Digital analysis and interpretation of near-infrared, thermal-infrared, and microwave data from satellites and aircraft. Field observation of study site in California desert for testing hypotheses during week between Winter and Spring Quarters. Concurrently scheduled with course C262. P/N or letter grading.

184G. Field Geology for Graduate Students. (2 to 4) Lecture, two hours; four to five field trips. Requisite: course 121. 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. S/U or letter grading.

188. Special Topics in Earth and Space Sciences. (4) Lecture/laboratory, to be arranged. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. P/N or letter grading.

193A-193B-193C. Undergraduate Journal Club Seminars: Earth and Space Sciences. (1-1-1) Seminar, one hour. Limited to undergraduate students. Study of current topics in Earth and space sciences, including participation in weekly department colloquium. May be repeated for credit. P/N grading.

C194A-C194Z. Research Topics in Earth and Space Sciences. (1 each) Research group meeting, to be arranged. Concurrently scheduled with courses C296A-C296Z. P/N grading.


C196. Volcanology and Geochemistry of Volcanic Rocks.

C197. Seismology and Solid Earth Physics.

C198. Thermal Evolution of Lithosphere.

C199. Sedimentation and Tectonics.


C201. Ocean Crust and Mantle.


C203. Space Geodynamics.

C204. Planetary Evolution.

C205. Martian Surface and Atmosphere.

C206. Tectonics and Stratigraphy.

C207. Geophysical Oceanography.

C208. Paleobiology.


C211. Space Physics.

C212. Magnetic Phenomena.

C213. Planetary Physics.

C214. Martian Surface and Atmosphere.

C215. Tectonics and Stratigraphy.

C216. Geophysical Oceanography.

C217. Paleobiology.

C218. Planetary and Cometary Evolution.


C220. Space Physics.

C221. Magnetic Phenomena.

C222. Planetary Physics.

C223. Martian Surface and Atmosphere.

C224. Tectonics and Stratigraphy.

C225. Geophysical Oceanography.


200D. Planetary Surfaces. (4) Lecture, three hours. Introduction to basic physical processes (both exogenic and endogenic) shaping solid surfaces in solar system and description of their optical and thermophysical properties, with emphasis on simple physics-based approach. Discussion of current literature. S/U or letter grading.

200E. Planetary Origins and Evolution. (4) Lecture, four hours. Designed for graduate students who are interested in origins of planetary systems and history of solar system. Open to advanced undergraduate students with permission of instructor. Prerequisites: Blackettian and dynamical background needed to understand and/or participate in research related to formation and evolution of solar system and of other planetary systems. Description of star/planet formation process and subsequent evolution of planetary systems by integrating observations and theory. Fosters interdisciplinary knowledge and communication between Departments of Earth and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


204. Time-Series Analysis. (4) (Same as Statistics 221.) Lecture, three hours. Designed for graduate students. Exploration of methods for analyzing numerical time-series data. Basic topics in temporal and frequency domain analysis by reference to more recent topics. Examples in various fields including economics, signal processing, and atmospheric sciences. S/U or letter grading.


206. Physical Geochemistry. (4) Lecture, four hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; application of important geochemical and environmental issues. Concurrently scheduled with course C106. Additional independent research project and oral presentation required of graduate students.

207. Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical sciences students. Origin and abundance of elements and their isotopes; distribution and chemistry of elements in Earth and its environment. Concurrently scheduled with course C107. Additional homework and class presentation required of graduate students.

208. Geothermics. (4) Lecture, two and one-half hours; discussion, 30 minutes. Requisite: Mathematics 33A. Basic concepts of heat transfer applied to solutions of geological and geophysical problems, including continental heat flow, cooling of oceanic lithosphere, solidification of magmas, thermal and subsidence history of sedimentary basins, frictional heating on fault zones, mantle geotherms, temperature in descending oceanic crust, and rock production in geo- thermal regions. S/U or letter grading.


213. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 144A (or 224A or 228A), Mathematics 3A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower division Earth and space sciences course. Intended for graduate life and physical sciences students. Study of chemical fate and transport of contaminants in environment and interplay between biology, human activity, and geology. Introduction to origin and composition of Earth, including atmosphere, crust, and hydrosphere. Examination of how these reservoirs are affected by biogeochemical cycles and feedbacks of evolution and diversity. Local and global-scale movements of biologically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course C113. S/U or letter grading.

217. Molecular Evolution. (4) (Same as Ecology and Evolutionary Biology M202A.) Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation, and speciation concepts, and historical geography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

219. Planetary and Orbital Dynamics. (4) Lecture, four hours. Planetary rotations, satellite orbits, and tidal dissipation; planetary orbital system; resonance effects and chaos; spin/orbit and orbit-orbit coupling; planetary models, S/U or letter grading.

220. Principles of Paleobiology. (4) Lecture/discussion, three hours. Limited to graduate student students. Open to qualified undergraduate biological and physical sciences students. S/U or letter grading.

222. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves, travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismicity; focal mechanisms; surface wave analysis; seismic microseisms and tsunamis. S/U or letter grading.

224A. Elastodynamics. (4) (Same as Mechanical and Aerospace Engineering M227A.) Lecture, four hours. Introduction to the mechanics of linear and compositional evolution. S/U or letter grading.

225A. Physics and Chemistry of Planetary Interiors I. (4) Lecture, four hours. Chemical compositions of Earth and planets; high-pressure and temperature effects, phase transitions, and equations of state; variations of density and temperature with depth; thermal and compositional evolution. S/U or letter grading.

225B. Physics and Chemistry of Planetary Interiors II. (4) Lecture, four hours. Lateral inhomogeneities in Earth: seismic velocities, petrology, geother- mal and gravitational variations; evidences of motion; mantle and gravitational variations; evidences of motion; thermal and compositional evolution. S/U or letter grading.

226. Advanced Igneous Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Designed for graduate students. Understanding genesis of igneous rocks based on geochemical, petrographic, and other geological evidence and principles. Concurrently scheduled with
course C126. Graduate students required to read more recommended references, make class presentations, and participate in reading, leading seminar-type discussions on their selected topics. S/U or letter grading.

228. Introduction to Planetary Dynamics. (4) Lecture, three hours; laboratory/discussion, 90 minutes. Requisites: courses 200B, 200C. Designated for graduate students. Basic principles of planetary dynamics. Analysis of planetary cores and core convection; mean field dynamo theory; kinematic dynamics. Applications to solar or planetary winds, steady-state magnetospheres, magnetospheric convection, substorm processes, magnetic merging, field-aligned currents, magnetopause coupling, ring current dynamics, and wave particle instabilities. S/U or letter grading.


242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisites: prerequisite: course C141. Petrographic study of sandstones, with emphasis on provenance, petrofacies, and paleotectonic reconstructions. S/U or letter grading.


245A-245B-245C. Current Research in Tectonics. (1-1-1) Seminar, one hour. Limited to graduate Earth and space sciences students. Seminars presented by staff, outside speakers, and graduate students on current research in tectonics and/or sedimentology. May be repeated for credit. S/U grading.


248. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, folding, and flow of rocks; solutions of structural problems at various scales; regional tectonic problems. S/U or letter grading.


251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal structure, crystal chemistry, phase equilibria, and petrogenesis. S/U or letter grading.

252. Seminar: Geochemy. (4) Seminar, two hours; discussion, two hours. Problems of igneous or metamorphic petrology: methods of evaluation of the influence of petrography, with emphasis on critical phenomena (defined as abrupt overall changes) in Earth's crust, mathematical modeling and analysis of data from seismic, remote sensing, and hydrology. Extensions to critical phenomena in engineering and socioeconometric systems. Letter grading.

255. Seminar: Structural Geology and Tectonics. (4) Seminar, three hours. Flow and fracture in Earth's crust from microscopic to continental scale and in extraterrestrial environments. Emphasis may include metamorphic terranes, glaciers, plutons, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basalts; processes leading to segmentation of continental or suboceanic plates. S/U or letter grading.

257. Seminar: Paleontology. (4) Seminar/discussion, three hours. Advanced topics in paleobiology, micropaleontology, paleoecology, and paleobiogeography, with emphasis on relations to other disciplines. S/U or letter grading.

259. Seminar: Paleotectonics. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on Phanerozoic of Western U.S. S/U or letter grading.

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 that varies in focus from general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subspecialties as prescribed. May be repeated for credit. Concurrently scheduled with course C160. S/U or letter grading.

261. Topics in Magnetostratigraphic Physics. (4) Lecture, four hours. Lectures, discussions, and exercises on specific advanced topics in magnetostratigraphy. Precious courses examine magnetic storms, magnetostratigraphic substorms, ultraviolet frequency waves, and adiabatic particle motion in Earth's radiation belts. S/U or letter grading.


265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (4) Lecture, three hours. Principles, testing, and operations of magnetometers and other instruments. Data processing, display, and archiving. Time-series analysis techniques, including filtering, Fourier series, eigenanalysis, and power spectra. S/U or letter grading.


275. Geocomplexity and Earthquake Predictions. (2) Lecture, two hours; discussion, two hours. Understanding and prediction of critical phenomena (defined as abrupt overall changes) in Earth's crust, mathematical modeling and analysis of data from seismic, remote sensing, and hydrology. Extensions to critical phenomena in engineering and socioeconometric systems. Letter grading.

280. Seminar: Geophysics. (4) Seminar, two hours; discussion, two hours. Seismology, geophysical prospecting, electromagnetic prospecting. Selected topics in Earth physics. Content varies from year to year. May be repeated for credit. S/U or letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Astronomy M285.) Lecture, four hours. Dynamical problems of solar system; chemical evidences from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; solar origin, evolution, and termination; solar nebula, hydromagnetic processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.


289. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dynamics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.


293A-293B-293C. Space Physics Journal Club. (1-1-1) Seminar, one hour. Limited to graduate space physics students in Earth and Space Sciences, Atmospheric and Oceanic Sciences, and Physics and Astronomy Departments. Review of current space physics literature. May be repeated for credit. S/U grading.

295A-295B-295C. Current Research in Earth and Space Sciences. (1-1-1) Lecture, one hour. Limited to graduate Earth and space sciences students. Seniors presented by outside speakers, staff, and/or graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.

C296A-C296Z. Research Topics in Earth and Space Sciences. (1 each) Research group meeting, one to three hours. Designed for graduate Earth and space sciences students participating in research group. 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. May be repeated for credit. Concurrently scheduled with courses C194A-C194Z. S/U grading:

C296A. Rock Deformation, Structural Geology, Tectonics.
C296B. Volcanology and Geochemistry of Volcanic Rocks.
C296C. Seismology and Solid Earth Physics.
C296D. Thermal Evolution of Lithosphere.
C296E. Sedimentation and Tectonics.
C296F. Seismology.
C296G. Planetary and Orbital Dynamics.
C296H. Space Plasma Physics.
C296I. Earthquakes.
C296J. Metamorphic Petrology.
C296K. Space Physics.
C296L. Magnetic Phenomena.
C296M. Planetary Physics.
C296N. Martian Surface and Atmosphere.
C296O. Tectonics and Stratigraphy.
C296P. Chemical Geodynamics.
C296Q. Paleobiology.

C296R. Planetary and Space Physics.
C296S. Precambrian Paleobiology.
C296T. Geophysical Fluid Dynamics.
C296U. Geomorphology and Geological Physics.
C296V. Cosmochemistry.
C296W. Earthquakes and Earth Structure.
C296X. Structural Geology, Tectonics.
C296Y. Advanced Techniques in Geological Research. (2 to 4) Lecture, two to four hours. S/U grading.

297. Advanced Topics in Earth and Space Sciences. (2 to 4) Lecture, two to four hours. S/U or letter grading.

C297A-C297Z. Research Topics in Earth and Space Sciences. (2 to 4) Lecture, two to four hours. S/U or letter grading.

M370A. Integrated Science Instruction Methods. (4) (Same as Chemistry M370A and Physics M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower division year (including laboratory) each of chemistry, life sciences, and physics and at least two Earth science courses, preferably one with field experience. Classroom management, lesson design, assessment, history of science education. S/U or letter grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: course M370A or Chemistry M370A or Physics M370A. Application of learning theory to science instruction and classroom management, including use of technology, collaborative learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

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

495. Teaching Earth and Space Sciences. (2) Seminar, one hour; discussion, two hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. Special emphasis on integration of technology in classroom. S/U grading.

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

596. Directed Individual Study and/or Research. (2 to 12) Tutorial, to be arranged. May be repeated. S/U or letter grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Scope and Objectives

The Master of Arts degree in East Asian Studies provides an interdisciplinary and highly flexible program of study. With opportunities to take a range of advanced courses in the social sciences and humanities, students are able to tailor their programs to emphasize particular methodological and disciplinary approaches and to focus in depth on the region as a whole and on its dynamics in particular countries. Coursework and language offerings range from the ancient to the contemporary and allow students to prepare for a broad range of individual needs and career interests with a thorough grounding in the history and culture of the region. Information on the undergraduate major in Asian Studies can be found in the International and Area Studies section later in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. 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.
Adjunct Associate Professor
Xiaoming Wang, Ph.D.

Adjunct Assistant Professors
Christy A. Brigham, Ph.D.
Ines Horovitz, Ph.D.
Seth D. Riley, Ph.D.
Debra M. Shier, Ph.D.

Scope and Objectives
Organismic biology touches every aspect of modern life, and understanding how living organisms are adapted to their environments is the major challenge of the discipline. To meet this challenge, the Department of Ecology and Evolutionary Biology offers undergraduate and graduate instruction at all levels of biology — from regulatory and physiological processes within organisms through the natural ecology and behavior of living organisms and to the population and community dynamics of multiple species. All of these subject areas address practical problems facing the world today, and all influence human decisions on matters ranging from conservation of the environment to advancement of medical science.

The Bachelor of Science degrees combine essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as advanced in-depth exposure to some of them. The Master of Science and Ph.D. degrees provide opportunities for advanced, concentrated study. The Master of Science degree requires, in addition to specified coursework, completion of either a comprehensive examination or the performance of original research culminating in a thesis. The 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 three different majors within the department: Biology (general biology); Ecology, Behavior, and Evolution; and Marine Biology. The majors build on similar lower division introductory courses prior to admission to UCLA: two of the majors — Ecology, Behavior, and Evolution — provide more specialized instruction and strong preparation for employment or subsequent graduate study in the respective disciplines.

Two of the majors offered in the department are designated capstone majors: Ecology, Behavior, and Evolution and Marine Biology. In both programs students apply theory and technique learned through four years of classroom and laboratory experience to their own independent projects. The major purpose of the capstone is to provide a unique field experience that involves designing and executing a research project. Students are aided in the scientific process of learning about a new ecosystem, developing relevant questions, designing conceptually based projects, troubleshooting and completing the work, and writing a publication-ready manuscript. They are also expected to exhibit strong teamwork, problem-solving, and communication skills.

Biology 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, 23L; 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.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students
Transfer applicants to the Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admission_transfer.htm for up-to-date information regarding transfer selection for admission.

The Major
Students must complete the following courses:

1. Chemistry and Biochemistry 153A
2. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 109, 116, 120, 121
3. At least 8 laboratory units (two courses) from Ecology and Evolutionary Biology 100L (if completed Fall Quarter 2011 and thereafter), 101, 103, 105, 109/109L (count as one course), 110, 111, 112, 113A, 114A, 115, 117, 128, 136, 152/162L (count as one course), 162/162L (count as one course), 170, 181. Four units from the Field Biology Quarter or Marine Biology Quarter may be applied, and one course from Molecular, Cell, and Developmental Biology
C150/150AL or Physiological Science 166 may be included (students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166)

4. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 101, 103, 105, 107, 109, 110, 111, 112, 113A, 114A, 115, 116, 117, C119, 120, 121, 122, 126, M127, 128, 129, 130, M131, 133, 135, 136, 137, M139, 142, M145, 151A, 152, 153, 154, 155, 160, 162, 170, M171, C174, 175, 176 (counts as one-half course), 180A (counts as one-half course), 180B, 187, 189A and 189B, 199 (4 units), Molecular, Cell, and Developmental Biology 138, 165A. Eight units from the Field Biology Quarter or Marine Biology Quarter may be included, and any departmental course not applied under item 2 or 3 above may be applied in this category

5. At least 12 units (three courses) from the following: Anthropology 120 and one course from 124A, 124P, 127P or 128A, Atmospheric and Oceanic Sciences M105 (or Ecology and Evolutionary Biology M139) or one course from 102, 103, 104, or 130, Biomathematics 110 and/or Biostatistics 100B, chemistry (except Chemistry and Biochemistry 193A through 199; Chemistry and Biochemistry 153L is strongly recommended), Earth and Space Sciences 116, Ecology and Evolutionary Biology 187, 188, 198A and 198B, 199 (4 units), Environment 184, Geography 112 and/or one course from 108 or 111, Human Genetics C144 or one course from Life Sciences 100HA, 100HB, or 100HC, mathematics (except Mathematics 105A, 105B, 106, 191 through 199), microbiology, immunology, and molecular genetics (except Microbiology, Immunology, and Molecular Genetics 193A through 199), molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 190A through 199D), Neuroscience M101A, M101B, M101C, 102, M130, M148, physics (except Physics 190 through 199), physiological science (except Physiological Science 191 through 199), Psychology 115. Any remaining units from the Field Biology Quarter or Marine Biology Quarter not applied in item 3 or 4 may be applied and any course not applied under item 2, 3, or 4 above may be included in this category

A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Biology majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major.

**Ecology, Behavior, and Evolution B.S.**

**Capstone Major**

The Ecology, Behavior, and Evolution major is appropriate for students preparing for graduate study in ecology, behavior, and evolution or for employment in areas such as environmental biology, animal behavior, conservation, teaching, museum work, and governmental positions dealing with environmental issues of wide importance and impact. A strong field component involving study in terrestrial and marine locales such as coastal, desert, and mountain environments in California and the Southwest and in the Neotropics is required.

**Preparation for the Major**

**Life Sciences Core Curriculum**

Required: Life Sciences 1, 2, 3, 4, 23L; 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; Statistics 13.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Ecology, Behavior, and Evolution major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

Students must complete the following courses:

1. At least 4 morphology and systematics units (one course) from Ecology and Evolutionary Biology 101, 103, 105, 110, 111, 112, 113A, 114A, 115, 117, or 130

2. At least 4 physiology units (one course) from Ecology and Evolutionary Biology 137, 162/162L (must take both), 170, or Physiological Science 166 (students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166)

3. At least 12 ecology, behavior, and evolution units (three courses) from Anthropology 128A, Ecology and Evolutionary Biology 100, 116, C119, 120, 121, 122, 126, 129, 130, 133, 135, 136, 137, 142, 151A, 152, 153, 154, 155, 162, M171, C174, 175

4. One capstone field quarter consisting of 16 units from the Field Biology Quarter (FBQ), Marine Biology Quarter (MBQ), or pre-approved equivalent (see undergraduate advising)

5. At least 8 units (two courses) from the following: Anthropology 128A, chemistry (except Chemistry and Biochemistry 193A through 199; Chemistry and Biochemistry 153A and 153L are strongly recommended), Earth and space sciences (geology only; except Earth and Space Sciences 188 through 199), ecology and evolutionary biology (except Ecology and Evolutionary Biology 190 through 199), Environment 184, geography (except Geography 188 through 199), mathematics (except Mathematics 105A, 105B, 106, 191 through 199), microbiology, immunology, and molecular genetics (except Microbiology, Immunology, and Molecular Genetics 193A through 199), Molecular, Cell, and Developmental Biology 172, physics (except Physics 190 through 199); recommended: taxon-oriented courses in ecological, behavioral, and evolutionary processes such as Ecology and Evolutionary Biology 111, 112, 113A, 114A, 115

Credit for 199 courses from other departments may not be applied.

Courses offered as part of the Field Biology Quarter (FBQ) are open to all qualified students, but strict priority is given to students who are Ecology, Behavior, and Evolution majors. Graduating seniors have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Ecology, Behavior, and Evolution majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution and Marine Biology majors. It is strongly recommended that students complete Ecology and Evolutionary Biology 109 and 109L prior to applying for the Marine Biology Quarter. Consult the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

**Marine Biology B.S.**

**Capstone Major**

The Marine Biology major is designed for students who wish to specialize in the area of marine sciences. Completion of this major pro-
vides 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 post-graduate 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, 23L, 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 1; Statistics 13.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

Students must complete the following courses:

1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 marine organismic biology or physiology units (one course) from Ecology and Evolutionary Biology 101 (unless taken under item 2), 105 (unless taken under item 2), 107, 112, 128, 137, 142, 170 (unless taken under item 2), or Physiological Science 166 (students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166)
4. At least 4 ecology and behavior units (one course) from Anthropology 128A, Ecology and Evolutionary Biology 100, 116, 119, 122, 126, 128, 129, M131, 133, 136, 137, 142, 151A, 152, 154, 155, 162, 170, or Geography M117
5. At least 4 evolution units (one course) from Ecology and Evolutionary Biology 116, 120, 121, 130, 133, 135, M171, C174, or 175
6. One capstone field quarter consisting of 16 units from the Marine Biology Quarter (MBQ) or preapproved equivalent (see undergraduate adviser)
7. One additional physical, chemical, or geological oceanography course from Atmospheric and Ocean Sciences 102, 103, 104, M105 (or Ecology and Evolutionary Biology M139), 130, Chemistry and Biochemistry 103, 153A, Earth and Space Sciences 100, 116, 119, C141, 153, Ecology and Evolutionary Biology M131, 153, 198B, 199, Environment 184, Geography 100, 101, 103, M106, M117, 123, 130, 169, Mechanical and Aerospace Engineering 103, or 150A, Molecular, Cell, and Developmental Biology 172

Credit for 199 courses from other departments may not be applied.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Marine Biology majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution and Marine Biology majors. Students must complete Ecology and Evolutionary Biology 109 and 109L prior to participating in the Marine Biology Quarter. Consult the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

**Field Biology**

The department offers two quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ) and the Marine Biology Quarter (MBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 103, 113B, 114B, 115, 118, 124A, 124B, 125, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology Quarters occur during Fall and Spring Quarters. 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 3.6 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B.

**Computing Specialization**

Majors in Biology, Ecology, Behavior, and Evolution, and Marine Biology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Conservation Biology Minor**

The Conservation Biology minor is designed for students who wish to augment their major program of study with courses addressing issues central to the conservation and sustainability of biodiversity and natural ecosystem processes. The minor seeks to provide students with a greater depth of experience and understanding of the role that science can play in developing conservation policy.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 1, Ecology and Evolutionary Biology 100, and 116 (or Environment 121) with minimum grades of C or better, and (3) file a petition in the Undergraduate Advising Office, 2325 Life Sciences. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Conservation Biology should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are requisites to some of the upper division courses accepted for the minor.

**Required Lower Division Course (5 units):** Life Sciences 1.

**Required Upper Division Courses (28 units minimum):** Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses (19 units minimum) from 101, 103, 105, 109, 111, 112, 114A, 114B, 122, 129, M131, 151A, 153, 154, 155, C174, 176, 180A. Courses completed as part of the Field Biology
Quarter and Marine Biology Quarter may be applied if not taken to fulfill a field quarter requirement; consult the undergraduate counselors for more information.

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

No more than two upper division required courses may be applied toward both this minor and a major or minor in another department or program, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credits for any of the above are subject to departmental approval; consult the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Ecology and Evolutionary Biology offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Biology.

Ecology and Evolutionary Biology

Lower Division Courses

10. Plants and Civilization. (4) Lecture, three hours; demonstration, one hour. Designed for nonmajors. Origin of crop plants; man’s role in development, distribution, and modification of food, fiber, medicinal, and other plants in relation to their natural history. P/NP or letter grading.

11. Biomedical Research Issues in Minority Communities. (5) Discussion, four hours. Limited to 30 students. Discussions and student presentations on biomedical research as it affects minority communities, with emphasis on methodology, design, consequences, and ethics of current research. Discussion leaders provide information on preparation and training for research careers. P/NP or letter grading.

12. Biodiversity and Extinction: Crisis and Conservation. (4) Lecture, three hours; discussion, one hour. Examination of ecological and evolutionary principles necessary to understand nature and importance of worldwide environmental crisis. Research by students of specific conservation issues and presentation of research to class. P/NP or letter grading.

13. Evolution of Life. (4) Lecture, three hours; discussion, one hour. Not open to life science 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, physi-ogy, phylogeny, population dynamics, behavior, and ecology. Emphasis on critical role of historical processes. P/NP or letter grading.

17. Evolution for Everyone. (2) Lecture, three hours; discussion, two hours. Exploration in detail of Darwinian natural selection, with emphasis on evidence and implications for modern problems people and societies face, including antibiotic resistance, genetic resistance to pesticides, and coevolution of pollinators with crop plants. Nature of science in context of questions about ongoing real-time Darwinian processes. Letter grading.

21. Field Biology. (4) Lecture, three hours; discussion, two hours, or field trips, three to four hours. Recommended preparation: Life Sciences 15. Not open for credit to students with credit for course 122 or Life Sciences 1. Introduction to natural history of Western North America, especially Southern California. Classification, distribution, and ecology of common plants and animals. P/NP or letter grading.

25. Living Ocean. (5) Lecture, three hours; 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.

59. Lower Division Internship in Biology. (4) Tutorial/fieldwork, three hours per week per unit. Internship course for lower division students to be supervised by Center for Community Learning, fieldwork site, and faculty advisor. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP or letter grading.

97. Variable Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, three to 12 hours. Current issues in research in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

97X. PEERS Forum: Pathways in Science. (1) Formerly numbered Chemistry M97X and Molecular, Cell, and Developmental Biology M97X. Lecture, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures and workshops to acquaint students with plethora of opportunities available to participate in research as undergraduate students, and careers available to graduates with science degrees. May be repeated twice, but only 1 unit may be applied toward graduation. P/NP grading.

Upper Division Courses

100. Introduction to Ecology and Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1. Not open for credit to students with credit for course 118, 1119, 122 through 126, 129, 132 through 134B, 136, or 151B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities and ecosystems, and behavior of animals use to find food, choose mates, and interact in social groups. Letter grading.

100L. Introduction to Ecology and Behavior Laboratory. (4) Laboratory, four hours. Enforced requisites: 100. Introduction to research methods in ecology and behavior, resulting in independent research proposals and to gain understanding of scientific method, critical evaluation of research papers, and development of scientific writing skills. Involves work outside and off-campus meetings. Letter grading.

101. Marine Botany. (4) Lecture, four hours; laboratory, six hours; three to four field trips. Requisite: Life Sciences 1. Introduction 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, three hours; laboratory, three hours; field trip. Requisites: Life Sciences 1, 4. Evolution, systematics, morphology, principles of taxonomy, phylogeny, phylogenetic analysis, speciation, and natural history of plants. Letter grading.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory/field trips, six hours. Requisite: Life Sciences 1. Introduction to systematics, evolution, natural history, morphology, and physiology of invertebrates. P/NP or letter grading.

106. Experimental Marine Invertebrate Biology. (4 or 6) Lecture, two hours; laboratory, 12 hours. Requisites: course 105, Physiological Science 166 (may be taken concurrently). Offered either as 6-unit quarter-long course or as 4-unit Marine Biology Quarter course. Advanced course of natural history, physiology, biochemistry of invertebrates, with emphasis on independent laboratory and field investigations. P/NP or letter grading.

107. Evolution, Development, and Function of Invertebrate Animals. (6) Lecture, three hours; laboratory, three hours; three weekend field trips. 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 development and developmental genetics of invertebrate form, and form and function as they relate to marine invertebrates. Letter grading.

109. Introduction to Marine Science. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1. Strongly recommended for prospective Marine Biology Quarter students. Introduction to physical and biological world of 70 percent of planet: oceans. Designed to be integrative, with focus on geological evolution of seas, physical and chemical properties of water, and how these abiotic processes shape ecology and evolution of marine organisms and environments. Letter grading.

109L. Introduction to Marine Science Laboratory. (2) Laboratory, three hours; discussion, one hour. Requisites: course 109 (may be taken concurrently). Introductory course to marine environments and methods used to study them. Exploration of variety of centers in marine science, research opportunities, opportunities to behavior, primary productivity, and marine biodiversity, with emphasis on experimental design and scientific writing. Letter grading.

110. Vertebrate Morphology. (6) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1, 2, 3, 4. Study of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult forms, biomechanics, development, and ontogeny. Laboratory study of selected vertebrates. Letter grading.

111. Biology of Vertebres. (5) Lecture, three hours; laboratory, three hours; four one- to two-day field trips. Requisite: Life Sciences 1. Adaptations, behavior, and ecology of vertebrates. Letter grading.


113A. Herpetology. (5) Lecture, three hours; laboratory, three hours; field trips, three and one half days per term. Requisite: Life Sciences 1. Recommended: course 100. Vertebrate zoology course restricted to
biology of reptiles and amphibians of world, covering current systematics, ecology, behavior, morphology, and systematic biology. Letter grading.

113B. Field Herpetology. (8) Requisite: Life Sciences 1. Recommended: courses 100, 111. Two weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.


114B. Field Ornithology. (8) Requisite: Life Sciences 1. Recommended: course 100. Two to three weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.


116. Conservation Biology. (4) Lecture, three hours; discussion, two hours. Requisite: Life Sciences 1. Recommended: course 110. Not open for credit to students with credit for Environment 121. Study of ecological and evolutionary principles as they apply to preservation of genetic, species, and ecosystem diversity. Discussion sections focus on interactions of science, policy, and economics in conserving biodiversity. Oral and written student presentations on specific conservation issues. Letter grading.

117. Evolution of Vertebrates. (8) Lecture, three hours; laboratory, two hours. Requisite: course 110. Recommended: one general ecology course. Fossil record of evolution of vertebrates, with emphasis on paleobiology and morphology of tetrapods. P/NP or letter grading.

118. Plant Adaptations. (8) Lecture, one hour; field trip, 10 hours. Requisite: course 100. Five-week course offered only as part of Field Biology Quarter. Field-oriented introduction to mechanisms by which vascular plants adapt themselves to their abiotic and biotic environments using community, population, and ecophysiological levels of integration. Letter grading.

C119. Mathematical and Computational Modeling in Ecology and Evolution. (4) Lecture, three hours; discussion, one hour. Requisite: courses 100, Mathematics 3B or 3A1. Recommended: course 122, Life Sciences 1, Mathematics 3C. Introduction to modeling dynamics of ecological systems, including formulation and analysis of mathematical models, basic techniques of scientific programming, probability and stochastic modeling, and methods to relate models to data. Examples from ecology but techniques and principles applicable throughout life and physical sciences. Currently scheduled with course C219, P/NP or letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, Mathematics 3A and 3B, or 31A. Designed for departmental majors specializing in environmental and population biology. Introduction to mechanisms and processes of evolution, with emphasis on natural selection, population genetics, speciation, evolutionary rates, and patterns of adaptation. P/NP or letter grading.

121. Molecular Evolution. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4. 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 3B or 31A. Highly recommended: Mathematics 3B, 3A2. 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, and patterns of community structure, dynamics, and functions of communities and ecosystems. P/NP or letter grading.

123A-123B. Field Marine Ecology. (4 or 8 each) (Formerly numbered 13A, 13B.) Lecture, three hours; laboratory, 15 hours. Recommended prerequisites: courses 100, 122. Offered either as 4- or 8-unit five-week intensive course given off campus as part of Marine Biology Quarter. Field research station located outside continental U.S. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine populations, organisms, communities, and ecosystems. Original research project required. Letter grading.

124A-124B. Field Ecology. (4 or 8 each) (Formerly numbered 124.) Lecture, five hours; laboratory or field trip, 15 hours. Requisites: course 100, Life Sciences 1. Recommended: courses 111, 120, 122. Offered as part of Field Biology Quarter that is in residence at research station located outside continental U.S. for part of term and laboratory or research in ecology; collection, analysis, and write-up of numerical data, with emphasis on design and execution of field studies. Letter grading.

125. Tropical Animal Behavior and Communication. (4 or 8) Requisites: courses 100, Life Sciences 1. Offered either as 4-unit quarter-long course or as 8-unit Field Biology Quarter course. Four-unit course has lecture, three hours; discussion, two hours. Animal communication behavior in the context of ecology and evolution of information processing systems. Eight-unit course covers same basic lecture material in five or six intensive weeks followed by extended field trips where students do individual projects in animal communication. Letter grading.

126. Behavioral Ecology. (4 or 8) Requisites: course 100, Life Sciences 1. Mathematics 3C or 32A. Recommended: course 129. Offered either as 4-unit quarter-long course or as 8-unit Field Biology Quarter course. Four-unit course has lecture, three hours; discussion, three hours. Animal communication behavior in the context of ecology and evolution of information processing systems. Eight-unit course covers same basic lecture material in five intensive weeks, followed by extended field trip where students do individual projects in behavior ecology. Letter grading.

M127. Soils and Environment. (4) (Same as Environmental Science M127 and Geography M127.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, processes controlling soil formation, soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.

128. Plant Physiological Ecology. (5) Lecture, three hours; laboratory, three hours; one two-day field trip. Requisites: Life Sciences 1, Physics 1C and 48L, or 6C or 6CH. Study of plant/environment interactions under natural conditions. Transpiration and photosynthesis, leaf temperatures, and water movement in soil/plant/ atmosphere continuum. Letter grading.

129. Animal Behavior. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1. Introduction to behavioral ecology. Methods and results of evolutionary approaches to study of animal behavior, including foraging strategies, social competition, sexual selection, mating systems, cooperation, and social organization. Letter grading.


M131. Ecosystem Ecology. (4) (Same as Geography M117.) Lecture, three hours; field trips. Requisites: Geography 2 or Life Sciences 1. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

132. Field Behavioral Ecology. (8) Lecture two hours; laboratory/field trip, 10 hours. Requisites: course 100, Life Sciences 1. Recommended: course 129. Five-week course offered only as part of Field Biology Quarter. Field research on behavior and ecology, emphasizing animal communication. Design and execution of individual and small group field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, three hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, 4, Mathematics 3A, 3B, and 3C1 or 3A1 and 3B1. Strongly recommended: elementary statistics course. Introduction of basic core mathematical ideas and models necessary to understand contemporary ecology and evolutionary biology. Population ecology and growth, community ecology, population genetics, natural selection. P/NP or letter grading.

134B. Field Physiological Ecology of Desert Animals. (8) Field course. Requisite: Life Sciences 1. Recommended: course 100. Two weeks of off-campus research projects. Four course (four hours per day) and offered only as part of Field Biology Quarter. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival in arid habitat. Students carry out superb research projects, then write up and orally present their results in seminar fashion. Letter grading.


136. Ecology, Behavior, and Evolution Laboratory. (4) Lecture, four hours; laboratory, eight hours; field trips, six and one half days per term. Requisites: course 100, Life Sciences 1, Mathematics 3C or 32A. Strongly recommended: course 120 or 122 or 129. Designed for Ecology and Evolution majors. Laboratory and field exercises on population genetics, growth, and regulation; competition and predation; behavioral interactions; species diversity and distribution. Methods for extrapolating theoretical models and computer simulations to laboratory and garden experiments to fieldwork. Mandatory field trips, including two weekend trips. Letter grading.

137. Chemical Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL, Life Sciences 1, 2, 3. Chemical signals are most important means by which organisms communicate. Exploration of how chemical signals are produced, transported, and influence behavior of microbes, plants, and animals. Synthetic approach, with emphasis on cell biology, physiology, and ecology. P/NP or letter grading.

M139. Introduction to Chemical Oceanography. (4) (Same as Atmospheric and Oceanic Sciences M105.) Lecture, three hours; discussion, one hour. Introduction to marine environments, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes govern this composition in present and past. Cycles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon and oxygen). Investigation of primary production, export production, remineralization, diaxygen, air-sea gas exchange processes. Letter grading.
142. Aquatic Communities. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Life Sciences 2, 3, 4, and 9. Focus on processes across scales from cells to ecosystem to globe, instrument for environmental and ecophysiological measurements, and experiments used to make discoveries about plant adaptation. Letter grading.

153. Ecological Responses to Environmental Challenges. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL (or 20A, 20B, and 20L), Life Sciences 1. Recommended: Life Sciences 2, 3, 4, Physics 6A. Chemical and physical principles pertinent to understanding functional responses of organisms to environmental changes, including those due to anthropogenic causes. Integrative focus on concepts and applications in basic sciences of environmental processes, organismal acclimation and adaption, and consequences of individual performance for populations and communities. Selected applications include climate change and complex adaptations in nature. Letter grading.

154. California Ecosystems. (5) Lecture, three hours; laboratory or field trip, four hours. Requisite: Life Sciences 1. Recommended: course 100. Introduction to structure, biodiversity, and dynamics of California ecosystems, with focus on Southern California, and impact of human activities on these systems. P/NP or letter grading.

155. Community Ecology. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 1. Recommended: course 100 or 122. Community ecology, exploration of diversity in current context. Examination of existing theories of community organization and evidence, both observational and experimental, bearing on these theories. Consideration of diverse array of communities — plant, animal, microbial, terrestrial, and marine — to give appreciation of extraordinary natural history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecological communities are responding now and will respond in future to anticipated global change, and conservation implications of these changes. Letter grading.

160. Introduction to Plant Biology. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 162. Introduction to aspects of plant biology. Topics include plant body, reproduction, plant diversity, gene expression, and basic plant function. P/NP or letter grading.

162. Plant Physiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3. Basic aspects of plant function, including photosynthesis; chemical, biochemical, and physiological aspects of photosynthesis; Carbon and nitrogen metabolism and its regulation; organellar interactions and compartmentation. Water relations, ion transport, flowering, hormone action, and plant responses to stress. Letter grading.

162L. Plant Physiology and Ecophysiology Laboratory. (2) Laboratory, four hours. Enforced requisite: Life Sciences 1, 2, 3. Enforced corequisite or requisite: course 152 or 162. Focus on whole-plant physiology and ecophysiology from biochemical and molecular processes to whole-plant function and field performance to gain understanding and appreciation of plant function, including dynamic processes of growth, development, and reproduction. Exercises provide training in approaches and instrumentation such that students become scientists, applying physiological techniques to answer questions on plant function. Letter grading.

163. Biology of Marine Tetrapods. (4) Lecture, five hours; laboratory and fieldwork, 15 hours. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL. Life Sciences 1, 2, 3. High recommended course 111. Five-week intensive course offered only as part of Marine Biology Quarter. Survey of higher vertebrates living in marine habitats, including estuarian amphibians, marine reptiles, seabirds, and marine mammals. Laboratory emphasizes observational and experimental approaches to study of morphology, systematics, ecology, and behavior of local marine birds and mammals. Given off-campus at marine science center. Letter grading.

164. Field Biology of Marine Fishes. (4) Lecture, five hours; laboratory, 15 hours. Requisites: Life Sciences 1, 2, 3, 4, 10, and 9. Five-week intensive course offered only as part of Marine Biology Quarter. Selected aspects of natural history, ecology, and behavior of diverse assemblage of local marine fishes. Field trips strongly emphasized. Given off campus at marine science center. P/NP or letter grading.

165. Ecological Physiology of Marine Vertebrates. (4) Lecture, five hours; laboratory, 15 hours. Requisites: Life Sciences 1, 2, 3, 4, and 9. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological principles and physiological adaptations of marine vertebrates to major physicochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. Letter grading.

171. Comparative Biology and Macroevolution. (4) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1. Recommended: one introductory statistics course. Modern comparative biology provides framework for studying broad questions in ecological and evolutionary biology. How do species become new species? What are the dynamics of evolutionary arms races? Why are there so many species in tropics? Why are there so many beetles and so few crocodiles? Did dinosaurs put birds and mammals on the road to new evolutionary diversification of mammals? Examination of why tree of life is essential to understanding patterns of biological diversity and how phylogenetic comparisons are used to test macroevolutionary hypotheses. Concurrently scheduled with course C230. Letter grading.

175. Evolutionary Dynamics of Sex. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 2 or 117B. Fitness dynamics of reproduction when females and males are in conflict over reproductive decisions, with focus on animals with human examples as appropriate. Emphasis on natural selection thinking, sexual selection, and origins of sexual conflict, including Fisherian sex allocation, evolution of manipulation through deceptive communication, and theory of Darwinian sexual conflict. Letter grading.


180A-B. Seminars: Biology and Society, (2-4) (Formerly numbered 180) Five-week intensive course (course 180A) and four hours (course 180B). 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 with instructor change. Letter grading.

181. Parasitology. (6) Lecture, three hours; laboratory, six hours. Requisite: 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.


187. Variable Topics in Ecology and Evolutionary Biology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3. Investigation, discussion, and study of current important issues involving substantial biological considerations in ecol-
198A-198D. Honors Research in Ecology and Evolutionary Biology. (4 each) Tutorial, 12 hours. Limited to juniors/seniors. Supervised individual research designed to broaden and deepen students’ knowledge of one phase of biology. Must be taken with Ecology and Evolutionary Biology Department faculty for at least two terms and/or total of at least 8 units. Eight units may be applied toward departmental major requirements for departmental majors. Individual contract required. In Progress (198A) and letter (198D) grading. Students may elect to enroll in additional courses 198A-198D since 198D (letter grading). Report on progress must be presented to undergraduate adviser each term. Course is taken.

199. Directed Research in Ecology and Evolutionary Biology. (1-12) Tutorial, two hours. Prerequisites: submission of written proposal outlining study or research to be undertaken. Students to involve laboratory or field-based research, not literature surveys or library research. Proposal to be developed in consultation with instructor and submitted for approval to undergraduate adviser before day instruction begins in that term. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. At end of term culminating report describing progress of study or research and signed by student and instructor must be presented to undergraduate adviser. Only one course 199 can be applied toward departmental majors. May be repeated for credit. Individual contract required. Letter grading.

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, adaptive radiation, macroevolution, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

M200B. Ecology. (4) Lecture, two hours; discussion, two hours. Principles and current topics in ecology. Topics may include island biogeography, disturbance ecology, chemical ecology, and ecological physiography. S/U or letter grading.

M200C. Animal Behavior. (4) Lecture, two hours; discussion, two hours. Survey of major topics in field of behavioral ecology. Topics include introduction to variety of research pursuits in field and questions and debates at leading edges of research. S/U or letter grading.

M203. Marine Botany and Physiology. (4) Lecture, three hours; discussion, one hour; laboratory, six hours; experimental project. Designed for graduate students. Structure, reproduction, life histories, and biology of marine algae, with emphasis on physiological ecology and biochemistry. Techniques in culture and physiological, ecological, and biochemical investigation of algae. Offered off campus at marine science center. S/U or letter grading.

M204. Advanced Biology of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental phyiology. Topics include discussion of appropriate aspects of chemical and physical oceanography; algal physiology; biochemistry, physiological ecology, and algal processes in ocean and freshwater habitats. S/U or letter grading.

M205. Marine Invertebrate Biology. (4) Lecture, four hours; laboratory, eight hours. Functional morphology, life histories, and systematics of marine invertebrates of all major and most minor taxa; emphasis on living animal and its habitat. Offered off campus at marine science center. S/U or letter grading.

M206. Advanced Ichthyology. (4) Lecture, three hours; laboratory, three hours. Requisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.


M216. 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, confidence intervals and properties of designs); linear regression, and introduction to principle components analysis. Methods to be implemented on computer with SAS; S/U or letter grading.

M217. 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. Offered off campus at marine science center. S/U or letter grading.

M218. Oceanology. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Ecology and dynamics of pelagic marine systems. Laboratory includes comparative and experimental approaches to investigation of phytoplankton and zooplankton; physical oceanography of open ocean and estuaries; behavior, population dynamics, and biogeography of component species; associated oceanography and geology. Offered off campus at marine science center. S/U or letter grading.

M219. Mathematical Ecology. (6) Lecture, three hours; discussion, one hour. Requisites: course 100, Mathematics 3B or 31A. Recommended: course 122, Life Sciences 1, Mathematics 1C. Introduction to modeling dynamics of ecological systems, including formulation and analysis of mathematical models, basic techniques of scientific programming, probability and stochastic modeling, and Monte Carlo simulation models to data. Examples from ecology but techniques and principles applicable throughout life and physical sciences. Concurrently scheduled with course C119. S/U or letter grading.


M225. Global Health Measures for Biological Emergencies. (4) (Same as Epidemiology M226.) Lecture, four hours. Requisite: Epidemiology 220. Migration of bioterrorism falls outside traditional public health programs and public health graduate education. Because of serious of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.

C230. Comparative Biology and Macroevolution. (4) Lecture, three hours; laboratory, six hours. Requisite: three upper division courses in ecology and evolutionary biology. Examination of why tree of life is essential to understanding patterns of species diversity and adaptive radiation. Comparison of evolutionary arms race. Why are there so many species in tropics? Why are there so many beetles and so few crocodiles? Did dinosaurs put beetles out of business? Did evolution — How do body shapes evolve? What are the mechanisms of evolutionary arms race? Why are there so many species in tropics? Why are there so many beetles and so few crocodiles? Did dinosaurs put beetles out of business? Did evolution — How do body shapes evolve? What are the mechanisms of evolutionary arms race?
of biological diversity and how phylogenetic comparative methods are used to test macroevolutionary hypotheses. Commonly scheduled with course C174. 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 nature of genome, neutral evolution, molecular clocks, concerted evolution, molecular systematics, statistical tests, and phylogenetic algorithms. Seminars 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.


M238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M238.) Lecture, three hours. Interaction of ocean biogeochemistry with physical climate system. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time-scales from few million years to several years. Anthropogenic perturbation of global carbon cycle and climate. Response of ocean ecosystems to past and future global changes. Use of isotopes to study ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

240. Physiology of Marine Animals. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory studies on cellular, tissue, and organ physiology. Regulation of cellular biology; metabolic characteristics of cells, energy transformations. Given off campus at marine science center. S/U or letter grading.

243. Animal Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C or 32A, and Physics 1C and 4BL, or 6C or 6CH. Physical properties of animal signals and physiological mechanisms underlying their generation and reception. Lectures treat signal analysis, signal transmission, and receptor design in light of constraints placed on each sensory modality. Examples of communication systems using visual, auditory, chemical, 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, five hours. Detailed discussion of current problems in insect physiology, with advanced laboratory. S/U or letter grading.

247. Advanced Plant Biology. (4) Lecture, three hours; discussion, two hours. Requisite: course 162 or Molecular Genetics with Genetical Biological Cycles C162 or Molecular Genetics with Genetical Biological Cycles C162. Open to undergraduates with consent of instructor. Designed to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant development and growth, organelle structure, development and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.

250. Professional Skills for Biological Research. (2 to 3) Seminar, two hours. Preparation, writing, and submission of research proposals. Collection and maintenance of field and laboratory data, preparation of scientific presentations, review of literature, and publishing strategies. Optional field trip offered during some years for 1 extra unit. S/U or letter grading.

251. Seminar: Systematics. (2) Seminar, two to four hours. Current topics in systematic biology, including methods development and specific applications in study of phylogeny. Theme varies from year to year. May be repeated for credit. S/U or letter grading.


255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

259. Seminar: Herpetology. (2) Seminar, three hours. Seminar on current approaches to herpetology. Main theme varies from year to year in areas such as biogeography, ecology, behavior, environmental physiology. S/U or letter grading.


261. Molecular Ecology of Plant Populations. (2) Seminar, two hours. Requisite: course M200A. Integration of ecological, population genetics, and evolutionary concepts to understand evolutionary ecology and conservation biology. Seminar on population natural and disturbed settings, with application to both terrestrial and marine systems. Letter grading.

263. Seminar: Population Genetics. (2 or 4) Seminar, three to six hours. Seminar on topics of current interest in population genetics, such as kin selection, sociobiology, cultural evolution, conservation genetics, etc. S/U or letter grading.

264. Seminar: Stomatal Function. (4) Seminar, two hours; discussion, two hours. Open to undergraduates with consent of instructor. Structure and function of guard cells; gas exchange; environmental and hormonal regulation of stomatal responses; sensory transduction; stomatal adaptations. S/U or letter grading.


270. Seminar: Environmental Physiology. (2) Seminar, two hours. S/U grading.


273. Seminar: Entomology. (2) Seminar, two hours. Discussion of specific topics in entomology and related fields. Main theme varies from year to year, usually emphasizes areas such as behavior, ecology, and evolution. S/U or letter grading.


279. Seminar: Evolutionary Biology. (2) Seminar, two hours. Requisite: course M231. Emphasis on particular issue in evolutionary biology, varying in topic whenever offered. Topics may include advances in phylogenetic methodology; relationship between development and evolution; biogeography; climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and diversification; macroevolutionary patterns in fossil record. S/U or letter grading.

282. Seminar: Ichthyology. (2) Seminar, two hours. Requisite: course 111 or 112. Student presentations and discussion of specific topics in ichthyology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.


M290. 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, neurophysiology, neuroethology, or behavioral physiology. S/U or letter grading.

291. Seminar: Physiology and Biochemistry of Arthropods. (2) Seminar, two hours. S/U or letter grading.

296. Seminar: Ecology and Evolutionary Biology. (1 to 4) Seminar, three hours. Advanced study and analysis of current topics in cellular, organismic, and population biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U or letter grading.

297. Selected Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, one to three hours. Advanced study and analysis of variable research topics in research issues in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

299. Seminar: Parasitology. (2) Seminar, two hours. S/U or letter grading.

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

495. Preparation for Teaching Biology in Higher Education. (2) Seminar, to be arranged. Designed for graduate students. Study of problems and methodologies in teaching biology, which includes workshops, seminars, apprentice teaching, and peer observation. S/U grading.

496. Preparation for Teaching Biology in Higher Education. (2) Lecture, two hours. Designed for graduate students. Strongly recommended as equivalent to course 495 discussions on teaching, theory, and development of advanced skills. Study of methods and approaches to teaching of specific areas in biology, which includes workshops, apprentice teaching, instructor/student interaction, and undergraduate motivation. S/U grading.

596. Directed Individual (or Tutorial) Studies. (2 to 12) Tutorial, to be arranged. Letter grading.

596F. Directed Individual (or Tutorial) Studies. (2 to 8) Tutorial, to be arranged. Given off campus at marine science center. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

ECONOMICS
College of Letters and Science

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Andrew G. Atkeson, Ph.D., Director of Business Economics

Professors
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Moise Buchinsky, Ph.D.
Dora L. Costa, Ph.D.
Michael R. Darby, Ph.D., (Warren C. Cordon Professor of Money and Financial Markets)
Sebastian Edwards, Ph.D., (Henry Ford II Professor of International Management)
Roger E. Farmer, Ph.D.
Jinyong Hahn, Ph.D.
Gary D. Hansen, Ph.D.
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Hugo A. Hopenhayn, Ph.D.
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Naomi R. Lamoreaux, Ph.D.
Deepak K. Lal, D.Phil.
Benjamin Klein, Ph.D.
Michael D. Intriligator, Ph.D.
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Robert W. Clower, D.Litt.
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Armen A. Alchian, Ph.D.

Professors Emeriti
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William R. Allen, Ph.D.
Masanao Aoki, Ph.D.
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Naomi R. Lamoreaux, Ph.D.
Edward E. Learner, Ph.D.
(Ajaxian J. Medbery Professor Emeritus of Management)
Axel S. Leijonhufvud, Ph.D.
John J. McCull, Ph.D.
George S. Murphy, Ph.D.
Finis R. Welch, Ph.D.

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Francisco J. Buera, Ph.D.
Ariel T. Burstein, Ph.D.
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Assistant Professors
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Jernej Copic, Ph.D.
Pascalin M. Dupas, Ph.D.
Pablo Fajgelbaum, Ph.D.
W. Walker Hanlon, Ph.D.
Edward C. Kung, Ph.D.
Zhipeng Liao, Ph.D.
Dayanand S. Manoli, Ph.D.
Moritz Meyer-ter-Vehn, Ph.D.
Marek G. Pycia, Ph.D.
Connan A. Snider, Ph.D.

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 Economics major should be filed at the undergraduate counselors office in 2263 Bunche Hall. To apply, students must have completed at least 72 quarter units (but no more than 137 quarter units), one 12-unit term in residence in regular session at UCLA, and a grade point average of at least 2.0 in any upper division courses taken for the major. In addition, they must be enrolled in UCLA regular session at the time of application.

Economics Premajor
While students are completing the lower division preparation courses for the major, they may be classified as Economics premajors.

Preparation for the Major
Required: Economics 1, 2, 11, 41; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E. Each course must be taken for a letter grade. A 2.0 (C) grade is required in each premajor course. To enter the major, students must have a minimum 2.5 grade-point average in the economics and mathematics preparation courses and a GPA of at least 2.0 in any upper division courses taken for the major before applying.

Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students
Transfer applicants to the Economics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one microeconomics course, one macroeconomics course, two calculus courses from the mathematics/physical sciences sequence, and one English critical reading and writing course.

Transfer students are required to take Economics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

To graduate, students must have at least a 2.0 grade-point average in their upper division major courses, with grades of C– or better in Economics 101, 102, 103, and 103L.

Major Fields
Applied microeconomics (courses 106H, 130, 131, M143, M135, M136, 150, 151, 183); industrial organization (courses 106E, 106I, 106P, 106T, 170); international and development economics (courses 111, 121, 122); mathematical economics and econometrics (courses 106D, 106G, 107, 141, 142, 143, 145); money and banking (courses 106F, 106M, 106V, 160, 161, 164).

Economics B.A./Applied Economics M.S. Dual Program
An intercampus dual degree program between UCLA and UC Santa Cruz 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 Business Economics B.A. program offers a major for students seeking a business orienta-
tion in their study of economics. It does not rep-
licate 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 in-
clude specific courses offered by the depart-
ment and the John E. Anderson Graduate
School of Management (see The Major).

Admission
Enrollment in the program is limited. Applica-
tions for admission are handled exclusively by
the Department of Economics. To apply, stu-
dents 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 en-
rrolled in UCLA regular session at the time of
application, (2) have a 2.0 (C) minimum grade
in each preparation course, (3) have a mini-
mum 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 be-
fore applying (Economics 101 applies on the
major preparation grade-point average).

The requisite grade-point averages plus com-
pletion of the preparation for the major courses
do not guarantee admission to the program.
Admission is on a competitive basis, using the
above qualifications as minimum standards for
consideration.

Business Economics Premajor
While students are completing the preparation
courses for the major, they may be classified as
Business Economics premajors. (Transfer stu-
dents who wish to enter UCLA as Business
Economics premajors must meet the admission
screening requirements. For information, con-
tact the Office of Undergraduate Admissions
and Relations with Schools.)

Preparation for the Major
Required: Economics 1, 2, 11, 41, 101; one
Writing II course; Management 1A, 1B; Math-
etics 31A, and 31B or 31E. Each course must
be taken for a letter grade.

Repetition of more than one preparation course
or of any preparation course more than once
results in automatic denial of admission to the
major.

Transfer Students
Transfer applicants to the Business Economics
major with 90 or more units must complete the
following introductory courses prior to ad-
mision to UCLA: one microeconomics course,
one macroeconomics course, two calculus
courses from the mathematics/physical sci-
ences sequence, one English critical reading
and writing course.

Transfer students are required to take Econom-
ics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to
department approval; consult an undergradu-
ate counselor before enrolling in any courses
for the major.

Refer to the UCLA Transfer Admission Guide at
http://www.admissions.ucla.edu/prospect/adm
_tr.htm for up-to-date information regarding
transfer selection for admission.

The Major
Required: Economics 102, 103, 103L, and,
(at least two courses from the 106 series with the
covering 1-unit laboratory; English Com-
position 131B; five upper division elective
courses in economics and management (no
more than three management courses from
Management 108, 120A, 120B, 122, 123, 124,
126, 127A, 127B, 130A, 130B, 140 may be ap-
plicated toward the elective requirement).

Each upper division major course must be taken
for a letter grade. Transfer credit for any
of the major courses is subject to department
approval; consult 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 prepa-
ration for the major, therefore requiring a mini-
mum grade of C.)

Economics/International Area Studies B.A.
The undergraduate Council of the UCLA Aca-
demic Senate suspended admissions to the
Economics/International Area Studies major ef-
effective Spring Quarter 2010. Continuing stu-
dents who successfully completed the premajors
courses by the end of Fall Quarter 2010 were
admitted to the major. Students currently in the
major and transfer students admitted to the
premajor for Fall Quarter 2010 are not affected
by the admissions suspension.

The Economics/International Area Studies B.A.
program is for students who wish to attain spe-
cialized knowledge of a particular geographical
area in addition to the economics analysis pro-
vided by the major. It should be useful to those
who plan careers in international business or
government service. The department encour-
ages participation in the University of California
Education Abroad Program or other recognized
international study programs. Experience in for-
eign firms or institutions would be an advan-
tage 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 lan-
guage). In addition, they must be enrolled in
UCLA regular session at the time of applica-
tion. Each course must be completed for a let-
ter 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 199B. The program as a
whole must be approved by an Economics De-
partment counselor before students are admit-
ted to the major.

Economics/International Area Studies Premajor
While students are completing the preparation
courses for the major, they may be classified as
Economics/International Area Studies pre-ma-
jors.

Preparation for the Major
Required: Economics 1, 2, 11, 41, 101, 102;
Mathematics 31A, and 31B or 31E. Students
also must complete at least the first year (or
equivalent) of the two required years of a mod-
ern 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
Transfer applicants to the Economics/Intern-
aional Area Studies major with 90 or more units
must complete the following introductory
courses prior to admission to UCLA: one micro-
economics course, one macroeconomics
course, two calculus courses from the mathe-
matics/physical sciences sequence, and one
year of a modern foreign language related to
the geographical concentration.

Transfer students are required to take Econom-
ics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to
department approval; consult an undergradu-
ate counselor before enrolling in any courses
for the major.

Refer to the UCLA Transfer Admission Guide at
http://www.admissions.ucla.edu/prospect/adm
_tr.htm for up-to-date information regarding
transfer selection for admission.

The Major
Required: A total of 12 upper division courses
selected from economics and the approved
noneconomics courses listed below for the con-
centration. Eight economics courses are re-
quired, including Economics 103, 121, 122, 199B,
and four economics courses from at
least two different fields (selected from the ma-
jor fields listed under the Economics major).
Economics 101 and 102 (which are required
for the premajor) cannot be used to satisfy this
requirement; former courses 100, 110, and 120
may not be included as electives. The four re-
maining upper division courses are social sci-
cences courses related to the concentration and
must be selected from the approved courses
listed below. Students are required to include
selections from at least two different depart-
ments. Economics 199B 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. Each major course must be taken for a letter grade.

One or two courses from Management 120A, 120B, 122, 127A, 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.

**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


**Former Soviet Union**

Languages: Armenian, Russian


**Individual Concentration**

Language, geographical area, and noneconomics courses to be approved in advance by the economics/international area studies faculty adviser

**Mathematics/Economics B.S.**

See the Mathematics/Economics listing for a description of the major.

**Honors Program**

The departmental honors program is open to majors in Economics, Business Economics, and Economics/International Area Studies who have a cumulative grade-point average of at least 3.5 in the major and in all courses taken at UCLA prior to application.

To qualify for departmental honors at graduation, students must (1) select at least seven of the required upper division economics courses from the approved list designated for departmental honors, (2) complete a two-term senior thesis acceptable to the departmental honors committee in Economics 198A and 198B, and (3) complete the major requirements with at least a 3.5 grade-point average in the economics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Economics 198A and 198B, the courses required for thesis preparation, may be counted as upper division courses toward the field in which the thesis is written (for purposes of satisfying the requirements for the major). Further information and application forms are available from an undergraduate counselor in 2263 Bunche Hall.

**Computing Specialization**

The specialization in Computing is not a major, but a supplement to the three departmental majors. It provides an extensive education in elementary computer science and an introduction to its applications in economics.

Majors in Economics, Economics/International Area Studies, and Business Economics 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, Program in Computing 10A, 10B, two courses from Program in Computing 10C, 15, 20A, 20B, 30, 40A, 60, and at least two courses from Economics 103, 106P, 141, 143, 151, 199A, 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 in the undergraduate counselors office, 2263 Bunche Hall, and are advised to do so after they complete Program in Computing 10B and are officially admitted to UCLA prior to application.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Economics offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Economics.

**Economics**

**Lower Division Courses**

1. **Principles of Economics.** (4) Lecture, three hours; discussion, one hour. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on allocation of resources and distribution of income through price system. P/NP or letter grading.

2. **Principles of Economics.** (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 1. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on aggregate economics, including national income, monetary and fiscal policy, and international trade. P/NP or letter grading.

5. **Introductory Economics.** (4) Lecture, three hours. Not open to students with credit for course 1, 2, or former course 100. Principles of economics as tools of analysis. Presentation of set of concepts with which to analyze wide range of social problems that economic theory illuminates. May not be used to fulfill entrance requirements for any Economics Department major. P/NP or letter grading.

11. **Microeconomic Theory.** (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, one course from Mathematics 31B, 31BH, 31E, 32A. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

41. **Statistics for Economists.** (4) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 31A, 31B. Not open to students with credit for Statistics 11. Introduction to probability and statistics for economists, with emphasis on rigorous arguments. Letter grading.

**Upper Division Courses**

101. **Microeconomic Theory.** (4) Lecture, three hours; discussion, one hour. Requisite: course 11. Theory of factor pricing and income distribution; general equilibrium; implications of pricing policy for optimal allocation of resources; interest and capital. P/NP or letter grading.


103. **Introduction to Econometrics.** (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, and 41 or Statistics 11 or 100A. Enforced corequisite: course 103L. Introduction to theory and practice of econometrics, with goal to make students effective consumers and producers of empirical research in economics. Emphasis on intuitive under-
standing rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.

103L. Econometrics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, and 41 or Statistics 11 or 100A. Enforced corequisite: course 103. Econometric analysis of case-based studies. Hands-on data collection and problem solving. Use of econometric software. P/NP or letter grading.

104A. Economics in Practice. (4) Formerly numbered 188B.) Seminar, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 104A. Case-based analysis requiring students to apply material from course 106A to real-world problems regarding issues such as economic theory and empirical methods. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

104B. Finance, (4) Lecture, three hours: discussion, one to two hours (when scheduled). Requisite: course 101. Enforced corequisite: course 106F. Case-based analysis requiring students to apply theory from course 106F to real-world problems regarding issues such as discounted cash flow analysis, CAPM model, applications to public policy. Letter grading.

104F. Finance Laboratory. (1) Formerly numbered 106FL.) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 104F. Case-based analysis requiring students to apply theory from course 106F to real-world problems regarding issues such as discounted cash flow analysis, CAPM model, applications to public policy, and more. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

105G. Introduction to Game Theory. (4) Lecture, three hours; discussion, one to two hours (when scheduled). Requisite: course 101. Enforced corequisite: course 106GL. Enrollment priority to Business Economics majors. Introduction to basic ideas of game theory and strategic thinking. Discussion of ideas such as dominant strategies, Nash equilibrium, commitment, credibility, asymmetric information and signaling, with application to examples from economics, politics, business, and other real-life situations. Letter grading.

106A. Investments. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: courses 11, 101, 102. Advanced pricing topics typically include linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

106E. Technology and E-Commerce. (4) Lecture, three hours. Requisites: courses 11, 101, 102. Enforced corequisite: course 106EL. Use of rigorous economic tools to analyze e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of topics such as bidding in online auctions, two-sided markets, matching markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106P. Pricing and Strategy Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106P. Case-based analysis requiring students to apply material from course 106P to real-world problems involving linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.


106W. Investments Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Recommended: course 106F. Enforced corequisite: course 106W. Enrollment priority to Business Economics majors. Introduction to principles of investment and portfolio theory. Topics include optimal portfolio construction, fixed income analysis, option pricing theory, and active portfolio management. P/NP or letter grading.
substitution, export-oriented expansion, foreign aid, and others. Selected case studies. P/NP or letter grading.

121. International Trade Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 101. Not open to students with credit for former course 120. Theory of international trade: bases, direction, terms of trade, and gains of trade. Effects of tariffs, quantitative restrictions, and international integration. Effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

122. International Finance. (4) Lecture, three hours; discussion, one hour. Requisite: course 102. Enforced corequisite: course 122L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary standards, capital movements, exchange controls, and international monetary organization. P/NP or letter grading.

122L. International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 122. Enforced corequisite: course 122L. Computer-based analysis requiring students to apply material from course 122 to real-world problems involving international finance. Topics and analysis include balance of payments, monetary arrangements, capital flows, exchange controls, and international monetary organization. Hands-on data collection and problem solving and presentation of study results. P/NP or letter grading.

C126A-C126B-C126C. Seminars: International Economics. (4-4-4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in international economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C296A-C296B-C296C. P/NP or letter grading.


130L. Public Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 130. Case-based analysis requiring students to apply theory from course 130 to real-world problems regarding government spending programs, taxation, deficit financing, and federal credit programs. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

131. Economics of Health and Healthcare. (4) Lecture, three hours. Requisites: courses 11, 101, 103. Economic analysis of health and healthcare. Presentation of several detailed economic models, including models of addiction, demand for healthcare, demand for insurance, nonprofit behavior, and other models. Evaluation of quantitative information from course readings and development of better understanding of economic concepts and results. P/NP or letter grading.

132. Topics in Taxation and Social Insurance. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101. In-depth examination of selected topics related to current policy debates. Topics vary from year to year but typically emphasize tax policy or social insurance topics such as corporate income tax; personal income tax; tax inefficiencies and their implications for labor supply, savings, and investment; income redistribution and personal income tax; corporate taxation and implications for firms’ investment and financing decisions; Social Security and SSI reform; and welfare programs, their effects, and implications of market failure and role for market intervention. P/NP or letter grading.

M134. Environmental Economics. (4) (Formerly numbered M134A.) (Same as Environment M134.) Lecture, three hours. Requisites: course 41 or Statistics 100A. (Formerly offered without consent of instructor). Introduction to major ideas in natural resources and environmental economics, with emphasis on designing incentives to protect environment. Emphasis on application of empirical data to test hypotheses about pollution’s causes and consequences. 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. P/NP or letter grading.


137. Introduction to Urban and Regional Economics. (4) Lecture, three hours. Requisite: course 11. Survey of broad range of policy and theoretical issues that are raised when economic analysis is applied in an urban setting. Topics include urbanization and urban growth, housing markets, location decisions of households and firms, transportation, urban labor markets, and local public sector. P/NP or letter grading.

140. Inequality: Mathematical and Econometric Approach. (4) (Formerly numbered 145A.) Lecture, three hours. Requisites: courses 101, 103, and Mathematics 33A or 115A. In past decades economists have learned remarkable amount about how society works. Increased understanding through application of distinctively economic methods of research — explicit mathematical models and ecologic statistic techniques. Research on poverty, education, and immigration, and leading to increased understanding of inequality, how to measure it, how inequality is a current issue of American, and how America differs from other societies. Study of risk and return in insurance markets. Study of this work, with focus on two important influences on inequality — education and health. P/NP or letter grading.

141. Topics in Microeconomics: Mathematical Finance. (5) (Formerly numbered 141A.) Lecture, three hours; computer laboratory, one hour. Requisite: course 11, Mathematics 32A, either Statistics 100A or Mathematics 170A. Economics of financial markets, competitive equilibrium with time and uncertainty, one period security market model, market completeness. P/NP or letter grading.


143. Advanced Econometrics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 103. Not open for credit to students with credit for former course 147A or 147B. Heteroskedasticity and autocorrelation, serially correlated errors, dynamic simultaneous equations, panel data, time-series. P/NP or letter grading.

145. Topics in Microeconomics: Mathematical Economics. (4) Lecture, three hours. Requisite: course 101. Possible topics include game theory; competitive equilibrium; factor markets; international trade and factor market failure and role for market intervention. P/NP or letter grading.

C146A-C146B-C146C. Seminars: Asset Pricing. (4-4-4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in asset pricing theory for advanced undergraduate and graduate students. Introduction to graduate-level research and presentation of student analyses each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C296A-C296B-C296C. P/NP or letter grading.


150L. Labor Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 150. Case-based analysis requiring students to apply theoretical models to course 150 to real-world problems involving labor economics. Topics include labor supply decisions, household production decisions, life-cycle aspects of labor supply, short-run and long-run labor demand, monopoly in labor market, quasi-fixed labor costs and labor demand, human capital, and other extended topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4) Lecture, three hours. Requisites: courses 101, 150. Selected topics in labor theory; income distribution; business cycles and unemployment; investments in human capital and life cycles; migration; human fertility; marriage and divorce, etc. P/NP or letter grading.

C156A-C156B-C156C. Seminars: Labor Economics. (4-4-4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C296A-C296B-C296C. P/NP or letter grading.


165. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 164. Enforced corequisite: course 164L. Case-based analysis requiring students to apply theory from course 164 to real-world macroeconomic growth problems.
C166A-C166B-C166C. Seminars: Monetary Economics/Macroeconomics. (4-4-4) Seminar, three hours. Requisite: course 102. Limited to seniors. Overview of most current developments in monetary economics and macroeconomics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C226A-C226B-C226C. P/NP or letter grading.


170L. Industrial Organization: Theory and Tactics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 170L. Case-based class requiring students to apply material from course 170 to real-world problems involving monopoly, collusion, strategic firm behavior, pricing practices, antitrust. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


181A-C181B-C181C. Seminars: Monetary Economics/Macroeconomics. (4-4-4) Seminar, three hours. Requisite: course 102. Limited to seniors. Overview of most current developments in monetary economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C226A-C226B-C226C. P/NP or letter grading.


182A. Honors Research in Economics I. (4) Tutorial, three hours. Requisite: courses 11, 101, 102. Limited to senior departmental honors program students. First term of two-term sequence in which students conduct honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 182B).


199A. Directed Research in Economics. (4) Tutorial, three hours. Requisite: courses 11, 101, 102. Limited to juniors/seniors. Supervised individual research or investigation under direct supervision of faculty mentor. Culminating paper or project required. May be repeated twice but may be applied only once toward major requirements. Individual contract required. P/NP or letter grading.

199B. Directed Research in Economics/International Area Studies. (4) Tutorial, four hours. Requisite: courses 103, and 121 or 122. Limited to senior Economics/International Area Studies majors. Students prepare research papers under guidance of faculty mentor on economy of country or region of specialization. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

Foundations of Economics

200. Mathematical Methods in Economics. (4) Lecture, three hours. Should be taken prior to or concurrent with course 201A. Examination of mathematical methods used in graduate-level courses in microeconomics, macroeconomics, and quantitative methods. Topics include real analysis, linear algebra, and matrix methods, multivariable calculus, methods of mathematical proof, and measure theory. P/NP or letter grading.

201A-201B-201C. Microeconomics. (4-4-4) Lecture, three hours, S/U or letter grading.


204A. Topics of Economic Theory. (4 each) Lecture, three hours. S/U or letter grading:

- 204A-204B-204C. California Population Research Topical Seminar Series. (4-4-4) Seminar, three hours. Examination of issues such as demography, health, aging, and fertility. Use of statistical arrays of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. Each course may be taken independently for credit. S/U or letter grading.

- M204L-M204M-M204N. Seminars: Pharmaceutical Economics and Policy. (1-1-2) (Same as Health Policy and Management M204A-M204B-M204C.) Seminar, three hours, every other week for three terms. Requisites: courses 202A, 202B, Health Policy and Management M236. Limited to graduate public health and economics students. Various topics in economics of pharmaceutical industry, including rates of innovation, drug regulation, and economic impact of pharmaceuticals. In Progress (M204L, M204M) and S/U or letter (M204N) grading.


Economic Theory

211A-211B. Economics of Uncertainty, Information, and Games. (4-4) Lecture, three hours. Preparation: introductory coursework. Requisites: courses 210C, 201C. Theory of individual decision making under uncertainty, applied to topics such as asset pricing models, adverse selection and 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 offered every year. May be repeated for credit. S/U or letter grading.


212B. Applied Game Theory. (4) Lecture, three hours. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and theory of mecha-

- 212A-213A. General Equilibrium and Game Theory. (4-4) Lecture, three hours. Requisites: course 210C. 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. Requisites: course 213B. Current research in mathematical economics. Content varies; currently scheduled with courses 215A-215B. May be repeated for credit. S/U or letter grading.

214A. General Equilibrium Theory. (4) Lecture, three hours. Requisite: course 210C. Core convergence theorem, cooperative and noncooperative approach to competitive equilibrium theory, perfectly competit-ive equilibria, no-surplus condition, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.

214B. Game Theory. (4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers. Discussion of current work, with focus on important theoretical restriction on data. Subgroups of students report back to class using technique on their selected data set. S/U or letter grading.

214C. Game Theory. (4) Lecture, three hours. Preparation: courses 212B, 212C, 212D. Emphasis on applied macroeconomics, with topic change each year. Students select one particular data set to study. Each week class studies article from recent work in applied macroeconomics or applied econometrics that teaches a technique or suggests other theoretical restrictions on data. Subgroups of students report back to class using technique on their selected data set. S/U or letter grading.

218A-222B. Topics in Monetary Economics. (4 each) Lecture, three hours. Preparation: current research in monetary economics. Content varies. May be repeated for credit. S/U or letter grading.

222A-C226B-C226C. Seminars: Monetary Economics/Macroeconomics. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in monetary economics and macroeconomics for advanced undergraduate and graduate students. Intro-duction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, dis-cussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Each term typically scheduled with courses C166A-C166B-C166C. S/U (C226B) and S/U or letter (C226A, C226C) grading.

228A-228B-229C. Proseminars: Monetary Economics. (4-4-4) Seminar, three hours. Workshops for predissertation and dissertation writers. Literature surveys or research in progress presented, dis-cussed, and criticized by visiting experts, UCLA faculty members, advanced graduate students. Research paper or presentation required. S/U grading.

229A-229B-229C. Workshops: Monetary Economics. (4-4-4) Lecture, three hours. Workshops for pre-dissertation and dissertation writers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, advanced gradu-ate students. Research paper required. S/U grading.


231B. System Models. (4) Lecture, three hours. Multiple regression, structural equation models, specification error, functional form, autocorrelation, nonlin-ear estimation, distributed lags, nonnormality, unvari-ate time series, quadratic dependent variables, aggregation, structural change, and errors-in-variables. S/U or letter grading.

Monetary Economics

221A-221D. Monetary Economics I to IV. (4 each) Lecture, three hours. S/U or letter grading:


- 221D. Monetary Economics IV. (4) Lecture, three hours. Requisites: courses 202A, 202B, 202C. Em- phasis on applied macroeconomics, with topic change each year. Students select one particular data set to study. Each week class studies article from recent work in applied macroeconomics or applied econometrics that teaches a technique or suggests other theoretical restrictions on data. Subgroups of students report back to class using technique on their selected data set. S/U or letter grading.

295/394. Economics / 295

295A/295B/295C. Seminars: Microeconomics. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Literature surveys or research in progress presented, dis-cussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Each term typically scheduled with courses C166A-C166B-C166C. S/U (C226B) and S/U or letter (C226A, C226C) grading.

298A/298B/299C. Workshops: Microeconomics. (4-4-4) Lecture, three hours. Workshops for pre-dissertation and dissertation writers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, advanced gradu-ate students. Research paper required. S/U grading. Also see Management 239A, 239B, 239C (Ph.D. se-quence in finance), 298BD (advanced topics in microeco-nomics, 239X, 239Y, 239Z (finance workshops)

Econometrics


Model with national debt. Fiscal policy. Externalities, and Keynes. Monetarist controversy. New classical overvie...
Economics

296 / Economics


M232A, Bayesian Econometrics. (4) (Same as Political Science M208E.) Lecture, three hours. Requisites: courses 231A, 231B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simplification of models, criticism. May be repeated for credit. S/U or letter grading.

232B. Time Series. (4) Lecture, three hours. Requisites: courses 231A, 231B. Stationary stochastic processes, Box/Jenkins methods, spectral analysis, forecasting, random walk models, long-term memory, testing for unit roots, three hours. Designed for graduate students.

239A-239B-239C. Workshops: Econometrics. (4-4-4) Lecture, three hours. Workshops for pre-dissertation and dissertation writers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Research paper or presentation required. S/U grading.

249A-249B-249C. Workshops: History of Economic thought. Three hours. Three hours. Designed for graduate students. Focus on key topics in economics of microeconomic data. May be repeated for credit. S/U or letter grading.

238A-238B-238C. Proseminars: Econometrics. (4-4-4) Seminar, three hours. Quarterly seminars for pre-dissertation and dissertation writers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Research paper or presentation required. S/U grading.


243A-243Z. Topics in Economic History. (4 each) Lecture, three hours. Seminar on current research in economic history. Content varies. May be repeated for credit. S/U or letter grading.

C246A-C246B-C246C. Seminars: Economic History. (4-4-4) Lecture, three hours. Requisites: courses 231A, 231B. Topics in public policy. Focus on key topics in economic history. Presentation of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, advanced graduate students. Presentation or research paper required. S/U grading.

C246A-C246B-C246C. 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. (4-4-4) Lecture, three hours. S/U or letter grading.


262A-262Z. Topics in Labor Economics. (4 each) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

262D. Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important key topics in microeconomics of development, such as health, education, risk coping, savings, credit, and household economics. Discussion of empirical methods. S/U or letter grading.

262F. Public Sector Microeconomics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of topics related to tax incidence, deadweight loss, public expenditure, income taxation and transfer programs, with emphasis on impacts of such programs on labor supply and savings, social security, unemployment insurance, and other insurance programs. S/U or letter grading.


C266A-C266B-C266C. Proseminars: Labor and Population. (4-4-4) Seminar, three hours. Quarterly seminars for pre-dissertation and dissertation writers who work in 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 pre-dissertation 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


271B. Industrial Organization, Price Policies, and Regulation II. (4) Lecture, three hours. Requisite: course 271A. Study of firm organization and pricing under conditions of less than perfect competition; information costs and advertising; economic and legal analysis of marketing practices such as discrimination, tie-in-selling, resale price maintenance, exclusive dealing, and territorial arrangements. S/U or letter grading.


272A-272Z. Topics in Industrial Organization. (4 each) Lecture, three hours. Current research in industrial organization. Content varies. May be repeated for credit. S/U or letter grading.

273A. Public Utility Regulation. (4) Lecture, three hours. Theory, practice, and consequences of regulation in electric power, gas, water, telecommunications, broadcasting, and other regulated industries; experiments in deregulation of other industries; public and firm responses to regulatory intervention. S/U or letter grading.

C276A-C276B-C276C. Seminars: Industrial Organization. (4-4-4) Seminar, three hours. Designed for pre-dissertation and dissertation writers. Overview of most current developments in industrial organization for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Presentation or research paper required. S/U or letter grading.


C278A-278B-278C. Workshops: Industrial Organization and Regulation. (4-4-4) Lecture, three hours. Workshops for pre-dissertation 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 262 (pricing policy)
International Economics


282A-282Z. Topics in International Economics. (4 each) Lecture, three hours. Current research in international economics. Content varies. May be repeated for credit. S/U or letter grading.

284. Soviet Economic Theory and Organization. (4) Lecture, three hours. Overall strategy of planning used by U.S. planners and specific planning methods, interpreted broadly to cover not only instructions and objectives but also institutional arrangements. Intended and unintended outcomes of methods. S/U or letter grading.

C285A-C285B-C285C. Seminars: International Economics. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in international economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C126A-C126B-C126C. S/U grading.

Development Economics


286B. Cost-Benefit Analysis of Development Projects. (4) Lecture, three hours. Requisite: course 286A. Methodology for evaluating investment projects, with specific attention to types of issues that arise in developing countries. Discussion of social versus private evaluation criteria; applications to highway, electricity, and irrigation projects. S/U or letter grading.

287A-287Z. Topics in Development Economics. (4 each) Lecture, three hours. Current research in development economics. Content varies. Courses in this sequence not ordinarily given every year. May be repeated for credit. S/U or letter grading.


287B. Economic Development in East Asia. (4) Lecture, three hours. Recent economic history of East Asia, focusing on postwar development of Japan, Korea, and Taiwan. Impact of international investment and trade, especially with U.S., in area’s economic development. May be repeated for credit. S/U or letter grading.

287C. Topics in Economic Development. (4) Lecture, three hours. Designed for graduate students. Topics in monetary and exchange rate policy in developing countries. Students expected to develop analytical tools and understanding of underlying policy issues. May be repeated for credit. S/U or letter grading.

288A-288B-288C. Proseminars: International and Development Economics. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on current issues in international trade and finance and development economics. Presentation of work-in-progress for feedback from faculty and other graduate students. Presentation or research paper required. S/U grading.

Urban Economics


293A-293Z. Topics in Urban Economics. (4 each) Lecture, three hours. Current research in urban and regional economics. Content varies. Serves as forum for presentation of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.

296A-C296B-C296C. Seminars: Asset Pricing. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in asset pricing theory for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C126A-C126B-C126C. S/U grading.

298A-298B-298C. Proseminars: Asset Pricing. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on empirical issues in area of asset pricing, broadly defined. Presentation of work-in-progress or background material for proposed dissertation topics that are discussed and critiqued by faculty members and fellow students. Presentation or research paper required. S/U grading.

Special Studies

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

495. Teaching College Economics. (2) Seminar, one hour; laboratory, three hours. Designed for graduate students. Required of all new teaching assistants. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

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

596. Individual Study. (2 to 8) Tutorial, to be arranged. Directed individual study or research. S/U grading.


Professors Emeriti

Marvin C. Alkin, Ed.D.
Alexander W. Astin, Ph.D.
HeLEN S. Astin, Ph.D.
Eva L. Baker, Ed.D.
Gordon L. Berry, Ed.D.
Nicholas G. Bluntson Jones, Ph.D.
James S. Catterall, Ph.D.
Arthur M. Cohen, Ph.D.
Donald A. Erickson, Ph.D.
Frederick D. Erickson, Ph.D. (George F. Kneller Professor Emeritus of Education and Anthropology)
Norma D. Feshbach, Ph.D.
Simon González, Ed.D.
John I. Goodlad, Ph.D., L.H.D., LL.D.
Kris D. Guinto, Ph.D.
John N. Hawkins, Ph.D.
Charles S. Healy, Ph.D.
Barbara K. Keogh, Ph.D.
Marilyn L. Kourilsky, Ph.D.
John D. McNeil, Ed.D.
Bengt Muthén, Ph.D.
Don T. Nakaniishi, Ph.D.
Jeanne L. Oakes, Ph.D. (Presidential Professor Emerita of Educational Equity)
W. James Popham, Ed.D.
Mike A. Rose, Ph.D.
Val D. Rust, Ph.D.
Rodney W. Skager, Ph.D.
Romeria Tidwell, Ph.D.
Carl Weinberg, Ed.D.
Richard O. Williams, Ph.D.
Wellford W. Wilms, Ph.D.
Charles Z. Wilson, Ph.D.

Associate Professors

Li Cai, Ph.D.
Christina A. Christie, Ph.D.
Robert Cooper III, Ph.D.
Noel D. Enyedy, Ph.D.
Kimberley Gomez, Ph.D.
Rashmita S. Mistry, Ph.D.
Ernest D. Morell, Ph.D.
Edith Mukudi Omwami, Ph.D.
John S. Rogers, Ph.D.
William A. Sandovall, Ph.D.
Concepción M. Valadez, Ph.D.
Jeffrey J. Wood, Ph.D.

Assistant Professors

M. Kevin Eagan, Jr., Ph.D., in Residence
David G. Garcia, Ph.D.
José-Felipe Martinez, Ph.D.
Thomas M. Philipp, Ph.D.
Jane E. Pizzolato, Ph.D.
Federica Raia, Ph.D., in Residence
José Luis Santos, Ph.D.
Richard L. Wagener, Ph.D.

Adjunct Professors

Diane Durkin, Ph.D.
Eliseo Lopez Metcalfe, Ph.D.
Faye C. Peltzman, Ph.D.
Jody Z. Priselac, Ed.D.
Linda P. Rose, Ph.D.
Eugene Tucker, Ed.D.

Adjunct Assistant Professor

Bruce L. Barbee, 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

Education Studies Minor

The Education Studies minor is intended to address the diverse information needs of the UCLA undergraduate community to (1) allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, (2) understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education either as teachers or researchers, and (4) 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 one minor course from the approved course list, have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an admission application with the education studies academic adviser in the Office of Student Services, 1009 Moore Hall, http://www.gseis.ucla.edu/edminor/. Applicants are expected to be committed to inquiry of issues central to educational research and practice. Students must follow the program of study in effect at the time of their admission. Students completing their sophomore year are encouraged to apply.

Required Upper Division Courses (32 units minimum): A minimum of four core courses selected from Education M108, 118 through 138, 149, M186, 187, and M194A, M194B, M194C (to be taken concurrently with either M182A, M182B, M182C or M183A, M183B, M183C) and three additional courses selected from the core courses listed above or from 80, 92A through 92F, 102, M103, M112, 140, 141, 142, 143, 144, M145A, M145B, 146A, 146B, 146C, 147, M148, 162, CM178/CM178L, 185, 191A through 191X, 192A/170A, 192B/170B, 196C.

Only one course from Education 80 and 92A through 92F may be applied toward the elective requirement. Courses CM178/CM178L, 192A/170A, and 192B/170B must be taken concurrently.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgrmqrntro.htm. 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, Doctor of Philosophy (Ph.D.) degree in Special Education (with California State University, Los Angeles), and Doctor of Education (Ed.D.) degree in Educational Administration (with UC Irvine). 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; labora- tory, eight hours. Introduction to range of critical con- cepts in humanities, social sciences, and hard scienc- es. 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 medi- cal 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 commu- nity. Offered in summer only. P/NP or letter grading.

40. Understanding Collegiate Experience. (4) Lec- ture, three hours; discussion, 90 minutes. Designed to help students better understand their experience within college environment by learning about research that has been done on college students and impact of college. Examination of diverse issues ranging from reasons why students go to college to how students are ultimately influenced by college experience. Letter grading.

92A. Study of Teaching and Learning Methods. (4) Seminar, three hours. Analysis of teaching theory and teaching methods in light of research on student characteristics, learning environments, student/instructor interaction, and outcomes of instruction. Application of theory and research to practice. Letter grading.

92B. Practicum in Higher Education. (4) Seminar, three hours. Requisite: course 92A. Examination of intellectual and personal development of college students through differential environments and instructional experiences. Letter grading.

92C. Dynamics of Peer Mentoring. (4) Seminar, three hours. First course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Letter grading.

92D. Development of Peer Mentoring. (4) Seminar, three hours. Requisite: course 92C. Second course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Concentration on relationship between creativity and presentation. P/NP or letter grading.
92E. Evaluation of Peer Mentoring. (4) Seminar, three hours. Requisite: course 92D. Third course in series, a seminar designed to provide opportunity for critical discussion and evaluation of factors involved in making adjustments to college experience, both academic and social. Letter grading.

92F. Academic Success in Undergraduate Experience. (2) Lecture, one hour; discussion, one hour. Discussion of understanding of factors involved in making adjustments to college experience, both academic and social. Letter grading.

98. Critical Issues in Education. (4) Seminar, 30 minutes; laboratory, 30 minutes. Introduction to critical educational issues and approaches taken by researchers, policymakers, and educators as they respond to these issues. Laboratory portion of course engages students in small research groups where they acquire background on particular issue of interest, learn about social sciences research, and conduct mini-research projects. May be repeated for credit. Letter grading.

Upper Division Courses

M102. Mexican Americans and Schools. (4) (Same as Chicana and Chicano Studies M102.) Seminar, four hours. Theoretical and empirical overview of Chicana/chicano educational issues in U.S., with special emphasis on differential effects of race, gender, class, and immigrant status on Chicana/chicano educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/chicano educational experience. P/NP or letter grading.

M103. Asian American Education and Schooling. (4) (Same as Asian American Studies M114.) Seminar, four hours. Examination of existing body of research on Asian American educational experiences. Letter grading.

M108. Sociology of Education. (5) (Same as Sociology M175.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains social/economic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background, class, race, and gender affect educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic status, health, attitudes and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.


118. Literacy in American Life. (5) Lecture, four hours. Introduction to literacy studies (study of reading and writing), with focus on American life. Readings are drawn from U.S.: studies of illiteracy in school, on job, and in everyday life; studies of literacy and electronic media; and self-study of development and use of students' own literacy. Letter grading.

120. Adolescent Child Development. (5) Seminar, four hours. Development of positive social behaviors and their enhancement. Broad overview of children's psychological development, with emphasis on personal, social, emotional, and cognitive attributes of preschool and elementary school child. Aspects of prosocial behavior and aggression. Enhancement of prosocial behavior and modification of such negative behaviors as aggression. Evaluation of various contemporary educational programs for promoting positive social behaviors in elementary schools. Methodological aspects of child development. Overview of early childhood education and issues related to role of family, school, and television in child development. Letter grading.

121. Introduction to K-12 Issues in American Public Education. (5) Seminar, four hours. Examination of American schooling experience (K-12) and analysis of various school and social policies that impact on children and adolescents. Systematic examination of major participants in American schooling process (parents, students, teachers, geographical space of school environment, school organizations, and society) and how they are associated with American schooling experience. Discussion of contemporary themes such as risk behaviors, SAT controversy, high school exit examinations, school promotion, technology in classroom development of children, school reform, equal educational opportunity, affirmative action, and educational assessment. Letter grading.

122. Perspectives on American College. (5) Seminar, four hours. Examination of role colleges and universities play in larger cultural life of U.S. society. Use of analysis of student movements as vehicle for exploration of key sociological, political, and cultural developments. Letter grading.

123. Teaching Profession. (5) Seminar, four hours. Exploration of traditional and alternative teaching practices and public responses to teachers teaching and students learning. Examination of education in socioeconomic context and discussion of some philosophical questions that challenge teaching profession. Letter grading.


125. Politics of Education. (5) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationships between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

126. Educational Anthropology. (5) Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of educational anthropology. Exploration of concept of cultural transmission, anthropological perspectives, with focus on theories of culture, cultural transmission, and acquisition, and cultural reproduction and production for understanding schooling and its outcomes. Examination of research methodologies in anthropology, as well as critical historical overview of discipline and current debates and dilemmas of doing anthropological research in educational settings. Issues of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and methods to educational practice and research. Concurrently scheduled with course C203. Letter grading.

127. Educational Psychology. (5) Seminar, four hours. Research seminar providing broad overview of educational psychology, with examination of relationship of teaching and learning processes as they relate to how children learn; issues of teaching and learning that arise based on child's social class, ethnic background, gender, age, and level of ability. Letter grading.

128. Adolescent Psychosocial Development: Problems and Potentialities. (5) Seminar, four hours. Research seminar providing overview of research literature on adolescent development and use of education environment as context for this development. Primary focus of adolescent development to be psychosocial in nature and relation of topics to understanding of one's identity, personal development, and relationships with other individuals and society at large. Study of psychological and education theories that apply to specific sub-groups of adolescents (e.g., women and adolescents of color), as well as those that are relevant to population of youth at large. Letter grading.

129. Education and Law. (5) Seminar, four hours. Research seminar providing overview of high-profile legal controversies that shape so many policy debates at both K-12 and higher education levels. Major areas of focus include campus safety, religion and public education, educational quality and law, broadbased right to equal educational opportunity, and Internet-related issues and concerns. Letter grading.

130. Race, Class, and Education Inequality in U.S. (5) Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of following groups in U.S.: African Americans, Asian Americans and Pacific Islanders, Chicanas/Chicanos/Latinas/Latinos, and low-income white Americans. Examination of how historical development of public education in U.S. has influenced its present form. Critical look at some current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.


132. Education of Exceptional Individuals. (5) Seminar, four hours; fieldwork, three hours. Research seminar providing survey of theory and research on the identified educational needs of students (elementary through high school age) who vary exceptionally from normal in mental, physical, psychological, and social characteristics. Letter grading.

133. Topics in Child Development and Social Policies. (5) Seminar, four hours; fieldwork, two hours. Research seminar designed to enable students to (1) gain basic understanding of ways in which public policies are established and implemented, (2) learn about policy landscape in several major domains of child and family life in U.S. and other countries, and (3) use scientific research on children's cognitive and social development to evaluate and understand effects of economic policies. Letter grading.

134. Educational Leadership, Organizational Theory, and Policy. (5) Seminar, four hours. Designed for students interested in developing understanding and appreciation for breadth of leadership models/theories in education, including traditional, entrepreneurial, behavioral, and relationship-based models. Analysis of effectiveness of organizations and/or policies in terms of educational leadership, and development of personal leadership profile in context of alternative models of leadership relevant to education. Letter grading.

135. Introduction to Educational Inquiry. (5) Seminar, five hours. Limited to seniors. Introduction to educational inquiry, with special attention to different ways of conducting research in field of education. Focus on different ways authors conceptualize/investigate educational development of culminating project. Letter grading.

136. Public Policy in Higher Education. (5) Lecture, four hours. Introduction to range of contemporary and ongoing higher education public policy issues and conceptual and theoretical frameworks typically used to understand them. Development of fluency in public policy language, with focus on national, state, and institutional policy perspectives. Letter grading.
143. Critical Pedagogy and Cultural Studies in Urban Education. (5) Lecture, two hours; discussion, two hours. Potential of critical pedagogy and empirical work in critical pedagogy and cultural studies to inform, confront, and transform many challenges faced in urban education today. Study of theory and research of critical pedagogists such as Paulo Freire, Paulo Cezar, and Paulo Villar. Letter grading.

140. Time and Behavior in Educational Organizations. (4) Seminar, three hours. Designed for juniors/seniors. Exploration of psychosocial perspective of how temporal orientation and time investments impact and shape human behavior, with specific emphasis on educational issues related to school reform, teen pregnancy, school violence, teacher burnout, teacher middle crisis, cultural diversity, information-seeking behaviors, and academic attainment. Letter grading.

141. Writing to Learn: Teaching Writing in Elementary and Secondary Schools. (4) Seminar, four hours. Ways to teach writing at elementary and secondary level through examination of related concepts of ideas, evidence, part, and whole, and writing process. Emphasis on how reading, writing, and thinking exercises engage students and lead them to develop their own ideas. Letter grading.

142. Reflections of Education Abroad Program Study. (4) Seminar, two hours; activity, two hours. Designed to provide returned Education Abroad Program (EAP) students with structured opportunity to deepen their understanding of the time abroad through contact with literature, academic articles, and speakers. Provides EAP reciprocity students with opportunity to analyze their transition to UCLA and allows both returned and reciprocity students chances to learn through service to EAP. Letter grading.

143. Understanding Pathways to College. (4) Lecture, two hours; discussion, two hours. Examination of inequality and K-12 higher education to understand how college admissions are stratified across racial and class lines. Roles of school personnel, higher education admissions, families, and students in promoting equal educational opportunity. Course is good preparation for students interested in working in UCLA programs such as Early Academic Outreach Programs that serve students in Los Angeles area schools. Letter grading.


M145A-M145B. Restoring Civility: Understanding, Using, and Resolving Conflict. (4-4) (Same as Chicana and Chicano Studies M174A-M174B.) Lecture, one hour; discussion, three hours. Course M145A is enforced requisite to M145B. Designed for students who want to learn principles of dialogue and mediation, as alternatives to violence, and practice how to apply them in educational settings. In Progress (M145A) and letter (M145B) grading.

M145C. Alternatives to Violence: Peer Mediation in Public Schools. (4) (Same as Chicana and Chicano Studies M174C.) Lecture, one hour; fieldwork, three hours. Requisites: courses M145A, M145B. Limited to juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs to be sustained by future UCLA students. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application of critical thinking, review of literature and courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

146A. Research Apprenticeship in Peer Counseling. (4) Seminar, limited to juniors/seniors. Highly interactive, student-centered course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

146B. Research Apprenticeship in Peer Advising and Leadership. (4) Seminar, four hours. Enforced corequisite: course 146A. Limited to juniors/seniors. Highly interactive, student-centered course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

147. Lesbian, Gay, Bisexual, and Transgender Issues in Education and Law. (4) Lecture, four hours. Lesbian, gay, bisexual, and transgender-related controversies that arise in schools, colleges, and universities today and how they are being addressed by legal and education communities. In particular, examination of real-life consequences of current laws and exploration of what might be done to make things better for all persons. Letter grading.

M148. Problem-Solving Education. (4) (Same as Gender Studies M148.) Seminar, three hours. Designed for juniors/seniors. Overview of issues related to experience of women in higher education. Topics include curricular transformation, feminist pedagogy, gender equity in the classroom and intersection of gender and race. Letter grading.

149. Innovation and Social Entrepreneurship in Education. (5) Lecture, two hours; laboratory, two hours. Exploration of various types of charter schools as well as alternative methods for social change. Evaluation of in-depth social entrepreneurship, its theoretical constructs, and its application to charter schools as social enterprises. Letter grading.

150. Student Development in Theory and Practice. (2) Seminar, two hours. Introduction to field of student affairs and contribution of student development theory. General overview of various student affairs functions and programs, along with key theories that inform practice. P/NP grading.

162. Policy Analysis and Real Politics of Education. (3) Lecture/discussion, three hours. Exploration of relationship between scholarly policy analysis and actual workings of policy systems. Selected topics include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

170A. Experiential Learning: Community-Based Outreach Programs. (2) Fieldwork, four hours. Enforced corequisite: course 192A. Training and supervised practicum for undergraduate students interested in raising their academic achievement and that of high school and middle school students. Letter grading.

170B. Experiential Learning: America Reads. (2) Fieldwork, four hours. Enforced corequisite: course 192B. TB test required prior to first day of instruction. Training and supervised practicum for undergraduate students, including tutoring and mentoring of K-3 students at America Reads sites. Letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Gender Studies CM178.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

CM178L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Gender Studies CM178L.) Laboratory corequisite course CM178. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

182A. Language, Literacy, and Human Development Ethnography. (2) (Same as Afro-American Studies M182A.) Fieldwork, three hours. Enforced corequisite: course 192A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

182B. Culture, Gender, and Human Development Ethnography. (2) (Same as Afro-American Studies M182B.) Fieldwork, three hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnoanthropological methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

182C. Culture, Communications, and Human Development Ethnography. (2) (Same as Afro-American Studies M182C.) Fieldwork, three hours. Enforced corequisite: course M194C. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

183A. Language, Literacy, and Human Development Ethnography. (3) (Same as Afro-American Studies M183A.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

183B. Culture, Gender, and Human Development Ethnography. (3) (Same as Afro-American Studies M183B.) Fieldwork, six hours. Enforced corequisite: course M194B. Students visit after-school site on weekly basis and use ethnoanthropological methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

183C. Culture, Communications, and Human Development Ethnography. (3) (Same as Afro-American Studies M183C.) Fieldwork, six hours. Enforced corequisite: course M194C. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

185. Community Service Learning for Academic Achievement. (4) Lecture, two hours; discussion, two hours. Must be taken prior to course 192A. Emphasis on cognitive learning and motivation theories and their relevance to strategies for developing curricular instructional techniques and training that contribute to tutoring, counseling, and other instructional assistance in various school settings. P/NP or letter grading.

192A. TB test required prior to first day of instruction. Training and supervised practicum for undergraduate students interested in raising their academic achievement and that of high school and middle school students. Letter grading.

192B. TB test required prior to first day of instruction. Training and supervised practicum for undergraduate students interested in raising their academic achievement and that of high school and middle school students. Letter grading.

M185. Community Service Learning for Academic Achievement. (4) Lecture, two hours; discussion, two hours. Must be taken prior to course 192A. Emphasis on cognitive learning and motivation theories and their relevance to strategies for developing curricular instructional techniques and training that contribute to tutoring, counseling, and other instructional assistance in various school settings. P/NP or letter grading.

186. Equal Rights and Unequal Education. (4) (Same as Political Science M186 and Public Policy M186.) Lecture, four hours. Exploration of contradictions between American beliefs about equal opportunity and racial equality and inequalities that exist in public education. Three major topic areas in education as vehicles for understanding philosophical and empirical complexities of issues surrounding equality in American education and the issues from legal, sociological, political, and philosophical perspectives. Arguments range from Martin Luther King to Ronald Reagan, and legal cases include Plessy v. Ferguson to Brown v. Board of Education, as well as cases still pending in courts.

187. Variable Topics in Education. (5) Seminar, five hours. Limited to juniors/seniors. Variable topics course organized around disciplinary knowledge central to development of core understandings of educational and learning processes, phenomena, policies, methods, and instruction. Development of culminating project. Consult Schedule of Classes for topics and
191A-191X. Current Issues in Education. (4 each) Seminar, four hours. Limited to juniors/seniors. Variable topics course organized on selected current issues basis, integrating field observations and readings with issues and concerned. Development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit. Letter grading.

192A. Undergraduate Practicum in Community-Based Outreach Programs. (2) Seminar, two hours. Requisite: course 185. Enforced corequisite: course 170A. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to study, design, and implement educational factors as well as cultural, social, and environmental factors that affect student academic achievement. Exploration, testing, and application of various learning styles that enable students to become more effective learners. Letter grading.

192B. Undergraduate Practicum in America Reads. (2) Seminar, two hours. Enforced corequisite: course 170B. Limited to juniors/seniors. TB test required. TB test for students with TB test requirement. Training and supervised practicum for advanced undergraduate students that provides opportunity to reflect on both content and experience pertaining to America Reads sites, letter grading.

193Y-193Z. High School Advising Program. (4-4) Discussion, two hours; fieldwork, five hours. Service learning courses designed to provide students with information and techniques sufficient to allow them to undertake academic advising in low-income high schools. Letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars. (5) (Same as Afro-American Studies M194A.) Seminar, five hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182B or M183A. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and language. May be taken independently for credit. Letter grading.

M194B. Culture, Gender, and Human Development Research Group Seminars. (5) (Same as Afro-American Studies M194B.) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182C or M183C. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and technology. May be taken independently for credit. Letter grading.

195. Community Internships in Education. (4) Tutorial, one hour; fieldwork, eight to 10 hours. Internship in K-12 schools or community to be supervised by Center for Community Learning and faculty sponsor. Students meet biweekly with teaching assistant, write reflective journals, and prepare final paper. May be repeatable for credit. Individual contract required. Letter grading.


196R. Research Apprenticeship in Education. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

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

199. Directed Research or Senior Project in Education. (2 to 4) Tutorial, to be arranged. Limited to seniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Historical Research and Writing. (4) Lecture, four hours. Methods of historical research and writing. Students will be engaged in research and in report or paper or thesis writing, regardless of their field of interest. S/U or letter grading.


200C. Analysis of Survey Data in Education. (4) Lecture, three hours; laboratory, two hours. Requisite: course 200B. Introduction to techniques of processing and analyzing nonexperimental and quasi-experimental quantitative data. S/U or letter grading.

M201C. History of American Education. (4) (Same as History M201.) Discussion, three hours. History of educational thought and of social forces impinging on American education from 1880s to present. Analysis of relations between these ideas and forces, and aims and practices of American education today. S/U or letter grading.


203. Educational Anthropology. (5) Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of anthropological education. Examination of conceptualization and analysis of complex world of “development cooperation” with particular reference to bilateral and multilateral efforts in education. S/U or letter grading.

204F. Nonformal Education in Comparative Perspective. (4) Lecture, four hours. Comparative and international study of organized and systematic education with emphasis on youth and adults carried on outside of schools. Types of programs include, among others, consciousness raising, community action training, literacy, and extension programs. S/U or letter grading.

205. Computers in Educational Process. (4) Lecture, four hours. Introduction to theory, experimentation, evaluation, and future of computer systems in education, with emphasis on computer-assisted instruction (CAI), and use of computers to teach programing and to foster development of writing, computational, and filing skills. S/U or letter grading.

206A. Philosophy of Education: Introduction. (4) Lecture, four hours. Systematic introduction to field, indicating ways in which philosophy serves to elucidate educational aims, content, methods, and values. S/U or letter grading.

206C. Introduction to Conceptual Analysis. (4) Lecture, four hours. Conceptual analysis of recurrent and contemporary themes in field. Emphasis on development of logical and linguistic skills used in analysis of educational problems and issues. S/U or letter grading.

207. Politics of Education. (5) Lecture, two hours; discussion, two hours. Political dimensions of educational institutions as organizations. Relationships between educational institutions and society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Core requires scheduled with course C125. S/U or letter grading.

208A. Perspectives on Sociology of Education. (4) Lecture, four hours. Sociological perspectives on current issues in educational policy and practice, including desegregation, decentralization, equality of educational opportunity, structure of educational organization, teacher/student relationships, reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208C. Explanation in Social Sciences and Educational Research. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Overview of basic strategies and forms of explanation relevant to inquiry in education. Examination of points of view of both social and behavioral sciences disciplines. S/U or letter grading.

209A. History of Higher Education. (5) Seminar, five hours. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher empowerment, and role of popular media. Core requires scheduled with course C124. S/U or letter grading.
209C. Research and Evaluation in Higher Education. (4) Lecture, four hours. Development of conceptual and practical aspects of research and evaluation in higher education. Topics include basic statistics, survey design, data analysis, assessment issues, and research proposal writing. Letter grading.

210D. System of Higher Education. (4) Lecture, four hours. Requisite: course 230A. Measurement theory as applied to educational and psychological testing, with focus primarily on classical test theory, reliability estimation, and test construction and selection. S/U or letter grading.


211C. Advanced Item Response Theory. (4) Lecture, four hours. Requisites: courses 211A or 211B or Psychology 255A, Psychology 255B. Review of standard item response theory models, multidimensional models, multiple group models and models with covariates, item and person parameter estimation, difference linking and scale alignement, computerized adaptive testing. S/U or letter grading.

212A. Learning and Education. (4) Lecture, four hours. Models of learning, modeling, reinforcement, motivation, encoding, memory, transfer, individual differences, and instruction. S/U or letter grading.

212B. Motivation and Affect in Educational Process. (4) Lecture, four hours. Review of theoretical and empirical literature on motivators in school settings and conditions for acquisition of affective outcomes. S/U or letter grading.

213C. Group Counseling Theory and Process. (4) Lecture, three hours; discussion, one hour. Requisite: course 212A. Focus on productive, 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 individual small groups. Letter grading.

213D. Assessment in Counseling and Student Affairs. (4) Lecture, four hours. Overview of assessment issues and methods used in counseling and student affairs activities. Emphasis on concepts of testing and measurement, applications of measurement theory, and contemporary issues that are significant in influencing assessment in student affairs programs. Letter grading.

214A. Counseling Theory and Practice. (4) Lecture, four hours. Alternatives in counseling practice in relation to theories of personality development and functioning, research on effectiveness of counseling, professional issues in school counseling, educational aspects of counseling. S/U or letter grading.

214C. American Professorate: Faculty Status, Role, and Performance. (4) Discussion, four hours. Historical and contemporary issues involving American professoriate. Topics include employment, academic culture, teaching and research, reward structure, faculty development. Letter grading.


214F. Student Problems: Social Context. (4) Lecture, four hours. Designed to assist students in understanding contextual influences that relate to student dysfunction. Consideration of number of contemporary social problems that are of concern to school counselors, educators in general, and behavior specialists in general. S/U or letter grading.

215. Personality, Motivation, and Attribution. (4) (Same as Psychology M239) Discussion, three hours. Current research and theory relating personality variables (e.g., attributional styles, self-esteem) to motivational concerns such as persistence and intensitiy of behavior. Perceived causes of outcomes in achievement and affective domains. S/U or letter grading.


217A. Social Development and Education. (4) Lecture, four hours. Biological and familial, school, and other influences on children; development in context of current research and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

217B. Cognition Development and Education. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Critical review of theories and research in cognitive development, with focus on work of Piaget and Vygotsky, and relation of this work to issues in educational practice. S/U or letter grading.

M217C. Personality Development and Education. (4) (Same as Psychology M245) Lecture, four hours. Review of research and theory of critical content areas in personality development that bear on school performance; achievement motivation, self-concept, aggression, sex differences, empathy, and other social behaviors; review of status of emotional behavior in personality theory and development. S/U or letter grading.

217D. Language Development and Education. (4) Lecture, four hours. Research and theory on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectical issues. S/U or letter grading.

217F. Adolescent Development. (4) (Same as Psychology M242G) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include puberty, development changes in parent/adolescent relationship, role of development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.


217I. Intensive interdisciplinary study of child physical and sexual abuse and neglect, with lectures by faculty members from Schools of Dentistry, Law, Medicine, Nursing, and Public Health; Department of Education and Psychology, as well as by relevant public agencies. Letter grading.

218. Measurement of Educational Achievement and Aptitude. (4) Lecture, four hours. Requisites: course 230A. Critical study of tests of achievement and aptitude, with emphasis on relation of achievement to aptitude; social implications of measurement of intelligence; elements of validity and reliability. S/U or letter grading.

219. Laboratory: Advanced Topics in Research Methodology. (4) Laboratory, four hours. Provides assistance in design of research and interpretation of data to advanced students from other divisions. Coverage of special topics not included in other courses on research methods. S/U or letter grading.

220A. Inquiry into Schooling: Organization and Change. (4) Lecture, four hours. Critical analysis of issues in reconstruction of schooling; concepts of function and structure of schooling; organization theory; systems approaches in analysis of organization development and change. S/U or letter grading.


221. Computer Analyses of Empirical Data in Educational Research. (4) Laboratory, two hours; discussion, three hours. Requisites: courses 209C (section 1), 230A. Designed to develop conceptual and technical skills needed for designing and executing empirical research; using statistical packages. Emphasis on conducting 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 Case Studies in Educational Research. (4) Lecture, three hours; discussion, one hour. Introductory course for students interested in epistemology, theories, and styles of qualitative research in educational settings. Theory and practice of naturalistic, qualitative research design covered in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requisite: course 222A. 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. Continuation of field 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 Curriculum. (4) Lecture, two hours; discussion, two hours. Examination of various ideas and theories in aesthetics and application of these in schooling contexts. S/U or letter grading.

224. Problems and Issues in Bilingual and Multicultural Education. (4) Lecture, two hours; discussion, two hours. Introduction to development and implementation of bilingual and multicultural programs in U.S. Analysis of program goals, models, typologies, and effectiveness. S/U or letter grading.

225A. Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Designed for graduate students. Analysis of major research regarding contemporary trends, issues, and programs for exceptional individuals; consideration of commonalities and differences among exceptional individuals. S/U or letter grading.
225B. Advanced Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Synthesis of developmental and educational theories with respect to study of exceptional individuals, including consideration of historical context of current research and applied issues in special education. S/U or letter grading.

226. Seminar: Special Topics in Writing, Rhetoric, and Educational Methodology. (4) Seminar, four hours. Special topics seminar on writing in education that could focus on history of writing about education, social and political dimensions of it, its variation by discipline, and its uses in professional and public contexts. Letter grading.

227A. Research on Learning Characteristics of Exceptional Individuals. (4) Lecture, four hours. Requisite: course 225B. Overview of research and theory regarding learning characteristics of exceptional individuals and discussion of application of this work to educational practice. S/U or letter grading.


228. Observation Methods and Longitudinal Studies. (4) Lecture, two hours; discussion, two hours. 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.


231B. Factor Analysis. (4) (Formerly numbered 231B.) (Same as Psychology M231C) Lecture, four hours. Requisites: courses 211B, 231A. Exploratory factor analysis applications; confirmatory factor analysis. Multiple-group analysis. S/U or letter grading.


231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analysis. (4) Lecture, four hours. Requisites: courses 230B, 230C. Examination of multilevel data (i.e., on individuals in organizational settings such as schools, corporations, hospitals, communities); consideration of alternative analytical models. Letter grading.


232. Instructional Analysis. (4) Lecture, four hours. Theoretical and empirical analysis of instructional variables as they relate to diverse types of instructional strategies, rotations, concepts in techniques of conducting instructional research. S/U or letter grading.

233. Professional Writing in Education. (4) Lecture, four hours. Exploration of professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and method. Letter grading.

234. Education and Social Stratification. (4) Lecture, four hours. Relationship between education and components of social stratification, including occupations and earnings. Competing theories used in studying educational inequities and stratification; relevant research. Conclusions regarding individual career decisions, social policies, and theories of society. S/U or letter grading.

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 multicultural society, with special emphasis on such 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) Lecture, four hours. Academic organizations and educational systems are most appropriately studied as complex, professionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relations, governance structures, processes, and patterns of decision making and policymaking. S/U or letter grading.


246A. Decision Analysis and Advanced Computer Models for Educational Policy and Planning. (4) Seminar, four hours. Requisite: course 242. How information technology and decision analysis impact K-12 schooling, higher education, and technical training/ work-based settings. With research paper, oral presentation, and two research briefs, students can pursue decision analysis areas of special interest to their professional and career objectives. S/U or letter grading.

247. Special Topics in Law and Educational Policy. (4) Lecture, four hours. Policy-based inquiry with focus on specific law-related debates that inevitably influence both K-12 and higher education communities. Identification of strategies that have been successfully employed by those who have sought to use law to shape educational policy. Letter grading.
248. Seminar: Special Topics in Child Development and Education. (4) Seminar, four hours. Content varies with investigation set by individual instructor. S/U or letter grading.

249B. Seminar: Institutional Research and Program Evaluation. (4) Seminar, four hours. Critical review of institutional evaluation studies, with consideration of scope of information needed for various purposes and problems of interrelating this information to appraise overall institutional functioning and effectiveness. S/U or letter grading.

250A. Fundamentals of U.S. Higher Education System. (4) Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this division, with emphasis on understanding social and political issues that shape higher education and organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4) Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this division, with emphasis on understanding social and political issues that shape higher education and organizational change. Letter grading.

250C. The Roots of Higher Education. (4) Lecture, four hours. Designed for graduate students. Overview of various social sciences theories used to analyze institutions and issues of contemporary higher education. Examination of how theory and methodology affect research design and framing of research questions in studies of higher education. Letter grading.

251A. Seminar: Philosophy of Education, Epistemology. (4) Seminar, four hours. Analysis of epistemological alternatives to empiricism and their relevance to educational research, planning, and practice. S/U or letter grading.


252A. Seminar: Educational Organizations. (4) Seminar, four hours. Requisite: course 208A. S/U or letter grading.

252B. Education Enterprise. (4) Lecture, two hours; discussion, two hours. Requisite: course 252A. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education, with focus on educational leadership. Emphasis on how knowledge and methodology affect research design and framing of research questions in studies of higher education. Letter grading.

253A. Seminar: Current Problems in Comparative Education. (4) Same as Gender Studies M253A.) Seminar, four hours. Examination of some of most influential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

253B. Seminar: African Education. (4) Seminar, four hours. Designed for graduate students. Contemporary issues in African educational systems, including questions of access and equity, quality and efficiency, relevance and responsiveness, links between schools and communities, and policy and practice in education. S/U or letter grading.


253D. Seminar: Latin American Education. (4) Seminar, four hours. S/U or letter grading.

253E. Seminar: European Education. (4) Seminar, four hours. S/U or letter grading.

253F. Seminar: Education in Revolutionary Societies. (4) Seminar, four hours. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this division, with emphasis on underlying social and political issues that shape higher education and organizational change. Letter grading.


255A-255B-255C. Seminars: Special Topics. (4-4-4) Seminar, four hours. May be repeated for credit. S/U or letter grading. 255A. Measurement; 255B. Design; 255C. Data Analysis.


256B. Seminar: Special Topics in Development. (4) Seminar, four hours. S/U or letter grading.

257. Seminar: Research in Counseling Psycholo gy. (4) Seminar, four hours. In-depth analysis of selected research approaches/areas in counseling psychology. S/U or letter grading.

258A. Seminar: Problems in Instructional Research. (4) Seminar, four hours. S/U or letter grading.

258B. Seminar: Problems in Instructional Development. (4) Seminar, four hours. S/U or letter grading.

259A. Seminar: Research on Characteristics of Students. (4) Seminar, four hours. Analysis of concepts in methodology and implications underlying and resulting from major research on student characteristics. Emphasis on differential impact of higher education on student and faculty development. S/U or letter grading.


261E. Higher Education Seminar: Divisity 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, curricula, institutional policies, and administrative practices. Letter grading.

261F. Seminar: Cognitive and Personal Development of College Students. (4) Seminar, four hours. Examination of cognitive development of college students; issues of personal and social development, including leadership, and interpersonal relations and skills. S/U or letter grading.

262. Seminar: Reading. (4) Seminar, four hours. S/U or letter grading.

262B. Seminar: Research Topics in Bilingual/Multicultural Education. (4) Seminar, four hours. S/U or letter grading.

262H. Economics of Urban Schooling. (4) Lecture, two hours; discussion, two hours. Examination of principles and tools of policy analysis and their application to enhance urban schooling decision making and effectiveness. Use of economics and equity as umbrellas lenses and drawing on multiple supplementary lenses and perspectives (from disciplines including history, law, political science, psychology, and sociology) to examine urban schooling issues and context and discourse of public policy genesis, implementation, and impact. Constructing and deconstructing of policy positions related to educational reform and transformation in terms of need for change and change proposal feasibility and desirability. Methods include development of a theoretical framework contrasting views of policy issues, contention and counter contention construction and support, and methods of advocacy, persuasion, and substantiation appropriate to various forums such as congressional testimony, public political dialogue, and academic research venues. Letter grading.

263. 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 — meeting today's educational challenges by internalizing and applying skills and thinking used by successful entrepreneurs. Letter grading.

264. Seminar: Teacher Education. (4) Seminar, four hours. Research, issues, and practices in preservice and inservice teacher preparation and certification. Social, philosophical, and methodological issues and current trends in America and abroad. Opportunities to observe, participate in, and discuss teacher education programs. S/U or letter grading.

265. Higher Education Policy. (4) Lecture, four hours. Requisites: courses 250A, 250B. Understanding public policy for higher education requires understanding of both issues and policy process. Review of major topics on which U.S. government is active, as well as key actors and their influence. Letter grading.

M266. Feminist Theory and Social Sciences Research. (4) Same as Gender Studies M266.) Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


268. Theorizing Reading: Rhetorics of Academic Discourse. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to theoretical approaches to reading, such as poststructuralist, feminist, deconstruction, reader reception, and semiotics, and to core ideas of some leading theorists of reading, such as Roland Barthes, Wolfgang Iser, Barbara Johnson, Stanley Fish, and Gayatri Spivak. Letter grading.

269. Representations of Education in Cinema. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we 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 adolescence). Letter grading.

270. Introduction to Cultural Studies. (4) Lecture, four hours. Investigation of current trends in cultural studies through examination of different methods of cultural interpretation, seminal texts in cultural studies, and practical criticism through popular impacts of media culture. Emphasis on developing critical media literacy as goal of cultural studies. Letter grading.

271A. Proseminar: Educational Psychology. (2) Seminar, two hours. Introduction to variation of research issues in field of educational psychology, including topics related to human development, learning and instruction, counseling, and special education, and to different methodological approaches used to study them. S/U grading.
272. Case-Study Research in Education Policy and Practice. (4) Discussion, four hours. Use of case-study research methods, providing opportunities for applying methodological insights to actual case-study research projects. Focus on single and multiple case studies that investigate issues in education policy and practice. Letter grading.

273A. Structural Dynamics of Educational System. (4) Lecture, two hours; discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American educational system where federal, state, and local policy, school administration, curricular theory and design, and teaching are inextricably connected in delivery of education. Letter grading.


274. Science, Technology, and Social Research after Eurocentrism. (4) Lecture, four hours. Philosophy of natural science. Course for sociologists that examines challenges to conventional research assumptions raised by multicultural and postcolonial science and technology studies that have emerged since World War II. Focus on sciences and technologies in third-world development projects, comparative ethnoscience movements, and new theories of knowledge and how to do maximally objective research emerging from these literatures. Letter grading.

275. Race and Education. (4) Seminar, four hours. Designed for graduate students. Examination of role of race in educational policymaking. Exploration of broad interpretation of how schools contribute to racial stratification and inequality by linking sociological and sociopsychological theories of race, racial attitudes, and conflict to historical policy analysis. Letter grading.

276. Contemporary Theories of Writing. (4) Lecture, four hours. Review of current theories of writing and literacy research and examination of relationships among writing and literacy, culture, and human development. In particular, examination of history of writing research over last three decades as part of broader intellectual history. Letter grading.


CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Gender Studies CM278.) Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literary projects. Concurrently scheduled with course CM178. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Gender Studies CM278L.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

279. History of Urban Schooling. (4) Lecture, four hours. Survey of urban schooling. Survey of major events, political and economic forces, and ideas that shaped urban schools since 1890. Examination of historical scholarship across range of political/ideological perspectives. Letter grading.

280A. Seminar: Selected Topics in Special Education. (2 to 6) Seminar, two to six hours. Focus on research and clinical problems in special education. Introduction to various research strategies. Exploration of current topics in field. S/U or letter grading.

280B. Seminar: Exceptional Individuals. (4) Seminar, four hours. Limited to doctoral students. S/U or letter grading.

281. College Access Seminar. (4) Seminar, two hours; discussion, two hours. Knowledge of changing dynamics of college access at individual, organizational, and political levels and understanding of links between K-12 and postsecondary stratification and how educational advantage and disadvantage accumulate throughout education and affects equity in college access. Letter grading.


283. Social Research in Multicultural and Postcolonial Contexts. (4) Seminar, four hours. Focus on the challenges that multicultural and postcolonial social theory and methodology have raised for conventional research traditions. Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding complex relationships between culture, brain, and development. S/U grading.

M285. Culture, Brain, and Development Forum. (1) (Same as Anthropology M293, Applied Linguistics M232, Neuroscience M293, and Psychology M248.) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding complex relationships between culture, brain, and development. S/U grading.

M286. Culture, Brain, and Development. (4) (Same as Anthropology M293S, Applied Linguistics M233, Neuroscience M293, and Psychology M247.) Seminar, three hours. Designed for graduate students. Integration of knowledge across different disciplines to understand interrelations of culture, brain, and development, where bio-social, biocultural, and biocognitive views of human development are brought together to understand human culture and human phylogeny. S/U or letter grading.

287. Research on Language Issues in Education. (4) Seminar, four hours. Roles of language(s) in formal and informal education, including study of opportunities and challenges offered by language variation found in schools. Examination of language acquisition theories along with those of language ideologies, language policies, and multilingualism. Letter grading.

288. Research Apprenticeship Course. (2) Discussion, four hours. Focus on development of graduate student research topics. Analysis of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

M289A-M289B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4) (Same as Science M287A-M287B, Public Policy M289A-M289B, and Sociology M290A-M290B.) Seminar, four hours. Examination of metropolitan American society and institutions at beginning of 21st century. Consideration of available information on patterns of settlement, changing functions of urban space and institutions, and issues of opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization of workplace and dramatic decline of industrial employment in advanced nations, not only greatly raise stakes on creating equal opportunity but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M289A) and let- ter (M289B) grading.

290. Educational Policy Analysis: Research, Theory, and Practice. (4) Seminar, four hours. Broad overview of development of educational policy from 1950s to present. Examination of current issues and debates within educational policy in U.S. through different theoretical lenses. Exploration of major bodies of research on educational policy and alternative paradigms. Letter grading.

291. Organizational and Leadership Theory in Education. (4) Lecture, four hours. Introduction to contemporary and historical conceptions of organization and leadership in context of formal schooling. Exploration of these conceptions through inquiry into school and college settings. Letter grading.

292. Curriculum Theory, Research, and Practice. (4) Seminar, four hours. Survey of theories and perspectives shaping what is taught in schools, providing graduate students broad understanding of these literatures, beliefs, and practices that have informed curriculum policies, as well as other lesser-known works, as well as trends that have influenced the domain of curriculum studies. Letter grading.

293. Teaching Studies: Research and Theory into Practice. (4) Seminar, four hours. Exploration of historical, theoretical, and practical issues related to teaching and teacher education, providing graduate students with broad overview of relevant literature and current issues shaping teaching profession in U.S. Letter grading.

M294A-M294B. High School Reform: Persisting Failure, Urgent Challenges. (1 to 8 each) (Formerly numbered 294A-294B.) (Same as Law M243A-M243B.) Seminar, four hours. Course M294A is enforced requisite to M294B. Research seminars with focus on what is probably most serious and neglected problem in American educational reform. In past half-century real progress has been made in preschool, gains in achievement in early grades have been produced, and very well-regarded system of higher education has been established — but reform of high school has failed. Exploration of institutional and policy roots of these problems and avail- able research on key dimensions to help students launch original research studies in one related area. Presentations by experts actively involved in high school reform efforts included. In Progress (M294A) and S/U or letter (M294B) grading.

295. Freire. (4) Seminar, four hours. Coursework: require course C175 or C207 or prior knowledge of Freire's work. Analysis of intellectual production of Paulo Freire linked to social context in which it took place. Study of his life and work in five phases: Brazilian Experience (1921 to 1964); Chilean Experience, where he published Education as Practice of Freedom and Pedagogy of Oppressed, as well as other lesser-known works, while also devoting most of this period to empirical research in literacy training (1964 to 1986); his work at Harvard, and then World Council of Churches in Geneva (1970 to 1980), including his consulting with postcolonial revolutionary govern- ments in Africa; his return to Brazil and his work as Secretary of Education in São Paulo; relations shaping K-12 curriculum in U.S. Letter grading.

296. Refining. (4) Seminar, four hours. Discussion of Refining. (Same as Law M243A-M243B) Seminar, two hours. Course M296 is enforced requisite to M296B. Seminar and discussion of Refining issues and practices.
296A-296F. Seminars: Research Topics in Education. (2 each) Seminar, three hours. Advanced study and analysis of issues in education. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296G. Research Topics in Education: Legal Aspects of Educational Management. (2) Lecture, two hours. Examination and analysis of legal issues, especially as they apply to school organizations. Letter grading.

296H. Research Topics in Education: Organizational Theory. (2) Lecture, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.

M297. Interdisciplinary Relationship Science. (4) (Same as Anthropology M295S, Psychology M236, and Sociology M270.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of undergraduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of undergraduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of undergraduate students. Diverse approaches to relation


296A-296B-296C. Research Practicum: Education. (4 to 8 each) Clinical, to be arranged. May be repeated for credit. S/U or letter grading.

300. Dissertation Writing Workshop: Interdivisional Seminar. (4) Seminar, one hour; discussion, two hours; laboratory, one hour. Limited enrollment. Instruction for doctoral candidates to dissertation writing as genre that can be analyzed or broken down with its constituent parts and, vice versa, which is constructed out of materials that can be identified and analyzed. S/U grading.

301. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential 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 for Teachers. (2) Lecture, two 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. (2) Laboratory, two hours. Limited to credential program students. Pedagogy for 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, organization and communication approaches, and communicative approach; strategies and activities. Letter grading.

310. Preparation and Supervision for Graduate Students in Education. (2) Lecture, two hours. Writing workshop on students’ papers in progress to ensure professional standards. Analysis and group discussion of theoretical and methodological 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 computer in elementary and secondary schools. Focus on theme of issues on how and why to integrate computers into curriculum and hands-on practice that allows students to demonstrate skills discussed. S/U grading.


315B. Elementary Literacy Methods. (3) Seminar, three hours. Theoretical principles and pedagogical strategies necessary for developing and maintaining balanced comprehensive literacy program for elementary students. Examination of how children learn to read, write, and use language. S/U grading.

316A-316B. Principles and Methods for Teaching Reading for Single Subject Instruction. (2-2) Lecture, two hours; Laboratory, 30 minutes. Reading instruction in secondary schools. Analysis of reading problems and programs; study of relationships between language/culture/cognition and reading. Examination and development of instructional programs; analysis and practice of alternative instructional methods. Observation and participation in schools. S/U grading.

318A. Integrated Methods for Elementary Teachers. (3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that incorporates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12. Letter grading.

318B. Integrated Methods for Elementary Teachers. (4) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that incorporates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards. S/U grading.


320A-320B-320C. Secondary Content and Literacy Methods. (3-3-3) Lecture, one hour; discussion, one hour; fieldwork, one hour. Examination and development of instructional strategies and practices of instructional methods for teaching content in grades 7-12. Emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses are aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards — all of which address needs and various interests of diverse students. S/U grading.


330. 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 assessment of culturally appropriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 20 hours. Requisite: course 330A. Students are assigned to student teaching in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. S/U grading.

330C. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 30 hours. Requisite: course 330A. Students are assigned to student teaching in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

330E. Classroom Residency and Teaching. (4) Site-based fieldwork, 40 hours. Students are employed by local school districts to teach as residents in designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through Teacher Education Program to initiate change project in their local school and/or complete case study on project. S/U grading.

360A-360B-360C. Novice Seminars. (3-3-3) Seminar, three hours. Analysis of basic principles and concepts of planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of constructivist strategies and their application in elementary and secondary schools. Examination of different methods of computer literacy and teaching subject matter. Students may conduct ethnographic inquiry of local community of their designated partnership district. S/U grading.

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

401. Structure and Functions of Schools as Complex Organizations. (4) Lecture, four hours. Critical analysis of alternative assumptions about organizations, how they function, and why people in organizations behave as they do. Application to special circumstances related to contemporary issues and problems in school leadership, improvement, and reform. S/U or letter grading.


405A-405B-405C. Teaching in Urban Schools. (3-3-3) Seminar, three hours. Limited to credential program students. Letter grading.

405A. Exploring Communities. (3) Seminar, three hours. Limited to credential program students. Learning about urban communities by critically examining students’ own beliefs, assumptions, and experiences about the way students deeply understand and appreciate urban and suburban lifestyles. Letter grading.

405B. Exploring Identities. (3) Seminar, three hours. Limited to credential program students. Examination and reflection on student values, beliefs, assumptions, and lives to determine how these factors shape way students view their world and, in particular, teaching, learning, students, their families, and their neighborhoods and communities. Letter grading.

405C. Exploring Family-School Connections. (3) Seminar, three hours. Limited to credential program students. Exploration of interrelationships among families, communities, and school systems, engaging parents, caregivers, guardians, students, and school personnel to develop strategies for working with families and to develop philosophy of education. Letter grading.


408B-408U. Language and Culture. (2 each) Lecture, two hours. Exploration of complex nature of culture and impact of cultural diversity in urban classroom through class discussions, activities, and reflective issues of culture in educational policies 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, teaching 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. (3) Lecture, three hours. Theoretical foundations of language structure and first and second language acquisition. Focus on major themes of current research that provide 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.

410A-410B. Issues in Higher Education and K-12. (4-4) Lecture, four hours. Two-course sequence providing overview of higher education systems. Letter grading. 410A. Designed to develop knowledge, understanding, and sensitivity to contemporary critical and emerging issues that impact higher education, with focus on both theory and practice. Study of relationships between issues in K-12 schooling and higher education. 410B. Exploration of issues that effect both higher education and K-12 schooling, including restructuring schools, standards, access structure, accountability, and new technologies. Emphasis on both theory and practice.

411. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation programs. Writing evaluation proposals, developing program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

412. Why Research Matters to Student Affairs Practice. (3 or 4) Lecture, three hours. How do researchers study impact of college on students? How can that research improve student affairs practice? Introduction to world of college impact research and orientation to major ongoing studies conducted at UCLA and beyond. Students interact with researchers and provide input on how research results might be utilized to improve work of student affairs. Letter grading.

413A. Language and Culture. (2) Lecture, two hours. Limited to credential program students. Offered and required for Spanish BCLAD credential. Focus on language of emphasis for bilingual teachers. Practice in listening, reading, speaking, and writing competencies required for multicultural classrooms. Assessment made at end of course to determine proficiency of BCLAD candidates. Letter grading.

413B. Methodology for Primary Language Instruc tion. (3) Lecture, three hours. Offered and required for Spanish BCLAD credential. Consideration of models for developing cultural and language skills of home speakers of language of emphasis; practice in use of activities to develop student ability to use language for real-world purposes and in culturally appropriate ways. Consideration of models for teaching academic content in primary language for delivery of core curriculum to bilingual students. Letter grading.

413C. Culture of Emphasis. (3) Lecture, three hours. Offered and required for Spanish BCLAD credential. Conducted in Spanish. 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.

414A. Student Affairs Practice and Theory. (3) Lecture, two hours; discussion, two hours. Examination of needs for student affairs services, range of services, their philosophical and empirical rationales, and their organization and evaluation to provide knowledge base for developing theories of practice. Ongoing involvement in cooperative learning project to examine issues and problems of student affairs. Offered in summer only. Letter grading.

414B. Legal and Ethical Issues in Student Affairs. (4) Lecture, two hours; discussion, two hours. Examination of legal and ethical issues that affect student affairs practices in higher education. Letter grading.

414C. College Student Counseling. (3) Lecture, three hours. Overview of counseling at college counseling centers. Review of historical context, philosophical and practical bases, organization and administration, specific programs, and contemporary issues and trends in college student counseling. Offered in summer only. Letter grading.

414D. Career Development and Interventions in College. (4) Lecture, one hour; laboratory, one hour. Examination of challenges faced by college students of all ages in preparing for careers in dynamic multicultural world economy and interventions for assisting students on understanding development and evaluation of interventions. Letter grading.

414E. Administration of Student Affairs. (3) Lecture, two hours; discussion, two hours. Overview of general knowledge and processes essential to effectively administer programs or services under student affairs. Examination of relationship between environmental factors and strategies for governing, planning, and managing student affairs programs and services. Offered in summer only. Letter grading.


415B. Advanced Assessment in Counseling Psychology. (4) Lecture, four hours. Requisite: course 415A. Advanced course in counseling psychology. Survey and demonstration of instruments of achievement, affective, and personality appraisal, with emphasis on testing and interpretation of assessment and psychological functioning for reducing risks of failure in academic, personal, and social areas. S/U or letter grading.

416. Program Development and Planning in Student Affairs. (4) Lecture, two hours; discussion, two hours. Planning of programs that provide or support learning for individuals and groups in student affairs context. Examination of philosophical foundations of program planning, along with pedagogical and logistical dimensions of program development. Letter grading.

417. Program Evaluation and Assessment in Student Affairs. (4) Lecture, two hours; discussion, two hours. Introduction to assessment and program evaluation in context of student affairs and higher education. Examination of usefulness and appropriateness of various program evaluation methodologies and theories of assessment practice. Letter grading.

418. Group Dynamics in Student Affairs. (3) Lecture, two hours; discussion, two hours. Group productivity, leadership in groups, social perception, attitude formation, and effect of behavior changes in individuals and groups. Emphasis on theoretical, philosophical, and educational principles related to experiences of individuals in small groups. Letter grading.
419. Introduction to Research in Student Affairs. (4) Lecture, two hours; discussion, two hours. Designed to familiarize students with basic research methods and procedures and to foster an awareness of career opportunities in the field of student affairs. Students will learn the fundamentals of qualitative and quantitative research designs, the analysis of data, and presentation of research results. O.U. or letter grading.


421A. Programs and Research in Early Childhood Education. (4) Lecture, four hours. Preparation: one course from development series. Examination of child care programs and research in early childhood education, including review of relation of research in development psychology and education to goals of early childhood education and day care. S/U or letter grading.


422. Inquiry into Schooling: Basic Issues. (4) Lecture, four hours. Critical examination of basic issues and problems in organization and reconstruction of precollege schooling. Consideration of historical development and changing functions of schooling in American society; school organization; schooling alternatives; problems in management of educational change. S/U or letter grading.


424A. Social Studies in Curriculum. (4) Lecture, four hours. Advanced study in social studies curriculum development; problems in defining objectives and organizing single and multidisciplinary programs; critical review of literature on cognitive and affective learning in social science, with emphasis on experimental study of instructional programs. S/U or letter grading.

424B. Reading in Curriculum. (4) Lecture, four hours. Requisite: course 230A. Study of reading curricula and instructional procedures, with emphasis on rationale and research underlying their development and usefulness in improving the effectiveness of S/U or letter grading.

424G. Curriculum Design for Bilingual Education. (4) Lecture, four hours. Advanced study of curriculum design for bilingual educational programs. Philosophical basis for bilingual programs; theories of learning and instruction applied to bilingual learner; language assessment; development of instructional component; program evaluation. S/U or letter grading.


426A-426B. Program Development and Program Evaluation in Student Affairs. (2-3) Lecture, two hours. Introduction to program development and planning as well as to program evaluation. Development of knowledge of and skill in planning educational and training programs that provide support for learning within context of student affairs, as well as knowledge of and skill in developing, implementing, and analyzing assessment projects within student affairs context. Study of basic theoretical perspectives underlying program development and program review/assessment and application by developing, implementing, and assessing effectiveness of one program. In Progress (426A) and letter (426B) grading.

431A. Administration in Higher Education. (4) Lecture, four hours. Overview of college and university administration and introduction to policy research and analysis in postsecondary institutions. Case studies of administrative problems, policies, and practices. Management information systems, resource allocation, and issues related to responsibility, authority, and participation in administrative decisions. S/U or letter grading.


432. Seminar: Professional Topics in Higher Education. (4) Seminar, four hours. S/U or letter grading.

433A. Design of Learning Environments. (4) Discussion, four hours. Theory and practice of design of technology-supported learning environments. Examination of how theories of learning guide design and enactment of learning environments in classrooms and informal settings and how research on such environments informs theory and design. Letter grading.

433B. Development of Educational Media. (4) Discussion, four hours. Current issues and trends in design of interactive educational media. Design and development of prototype educational media applications, integration plans for established or experimental educational media into formal learning settings, or evaluations of specific learning environments. Letter grading.

440C. Administration of Instructional Programs. (4) Lecture, four hours. Examination of current educational problems in society and strategies of their solution through curricular and instructional design and operation; in-service training of teaching staffs. S/U or letter grading.

441A. Instructional Supervision A. (4) Lecture, four hours. Requisite: 441B. Examination of research-based elements of instruction: task analysis, appropriate objectives, principles that increase motivation, rate and degree of learning, retention and transfer, monitoring and adjusting instruction to meet needs and capacities of learners. S/U or letter grading.


442B. Legal Aspects of Educational Management and Practice. (4) Lecture, four hours. Examination of structures and kinds of law governing educational systems in U.S.; constitutional dimensions of church/state relations; employees' civil rights and legal aspects of hiring, firing, and negotiating procedures; student attendance, control, and civil rights. S/U or letter grading.

443. Policy Analysis in Education. (4) Lecture, four hours. Overview of political, economic, and legal context of educational policy formation. Included in examination are issues that impact on minorities (e.g., bilin- gual education, desegregation, affirmative action, role of subordinates in policy-making process). S/U or letter grading.

444B. Quality of Educational Opportunity through Desegregation and Finance Case Law. (4) Lecture, four hours. Requisite: course 442B. Concentrated review of definition of equality of educational opportunity as it is being developed by courts in cases concerning desegregation and educational finance. S/U or letter grading.

447. Seminar: Educational Policy and Planning, Special Studies. (1 to 4 Seminar, one to four hours. S/U or letter grading.

448A. Urban School Leadership. (4) Lecture, four hours. Analysis of problems of urban school leadership. Emphasis on changing nature of urban principalship, with considerable attention to role of other school and community agencies that interact with urban school leaders. S/U or letter grading.

448B. Urban Leadership Laboratory. (4) Laboratory, four hours. Analysis of opportunity to practice human and technical skills requisite for success as urban school leader. Topics include negotiations, conflict resolution, applied computer technology, and effective communication. Activities include gaming, simulation, computer programming, and group dynamics. S/U or letter grading.

450. Leadership Capacity Building. (4) Lecture, one hour; discussion, three hours. Limited to Educational Leadership Program students. Course taken in year three of Educational Leadership Program to help students with their communication and leadership capacities. S/U or 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 curricula 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 technology in educational institutions and leadership issues associated with these roles. Letter grading.

454A. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours. Small group work, one hour. Limited to Educational Leadership Program students. Students carry out full cycle of action research at educational site. Projects done in teams as students hone and assess their collaboration abilities. Exploration of qualitative and quantitative data gathering methods and analyses. Letter grading.

454B. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leadership Program students. Course taken in year two of Educational Leadership Program to help students with their communication and leadership capacities. S/U or letter grading.

455. Writing and Inquiry. (4) Lecture/workshop, eight hours per month; discussion, one hour; labora- tory, one hour. Limited to doctoral students in Educational Leadership Program. Intended to assist students' professional development as writers, addressing style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and method. Letter grading.
466. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4) Lecture, four hours. Logical features of instruction and their application to inquiry techniques in teaching and learning process, and debriefing of field experiences. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA academic adviser and graduate dean. May be repeated for credit. S/U grading.

470A. Seminar: Educational Government. (4) Seminar, four hours. Topics include problems and practices in community college formation, instruction, student flow, administration, and/or evaluation. S/U or letter grading.

482A. Instructional Strategies in Urban Education: Technology. (4) Lecture, four hours. Emphasis on instructional practices that integrate use of technology in urban public schools. Study and analysis of comprehensive specialized use of appropriate computer-based technology to facilitate teaching and learning process, and debriefing of field experiences integrating technology-related tools. Letter grading.

482B. Instructional Strategies in Urban Education: Language Learners. (4) Lecture, four hours. Emphasis on instructional practices that support English language learners in urban public schools. Study and analysis of delivery of comprehensive specialized instruction for English learners and debriefing of field experiences implementing adopted instructional programs for development of academic language, comprehension, and knowledge in core academic curriculum. Letter grading.

482C. Instructional Strategies in Urban Education: Special Populations. (4) Lecture, four hours. Emphasis on instructional practices that support special populations in urban public schools. Continuation of study of statutory provisions, curriculum instruction, and assessment issues related to teaching students with disabilities, students who are at risk, and students who are gifted and talented. Research opportunities, additional methods in content areas for advanced study, and preparation of M.Ed. inquiry included. Letter grading.

485. Advanced Study of Health Education. (1) Lecture, four hours. Study and analysis of health education. Focus on educational influences on self and others. Letter grading.

489. Instructional Strategies in Education. (4) Lecture, four hours. Methods for academic instruction, including research and active participation in adversary approach, forms of debate, role playing, interaction process analysis, and feedback instruments. Practical emphasis on social sciences and humanities instruction, K-12. S/U or letter grading.

490A. Instructional Decision Making. (4) Lecture, four hours. Analysis of instructional models relevant to public school education. Assumptions, procedures, and constraints of each strategy considered in terms of learner and task variables. Laboratory experiences in classroom settings for students systematically to apply and evaluate alternative instructional strategies. S/U or letter grading.


495A-495B-495C. Resident Seminars. (4-4-4) Seminar, two hours; site-based fieldwork, two hours. Students meet in individual sessions with instructors and other field support faculty and in team and cluster cohorts for university-school partnership, in addition to regular seminars to debrief field experiences and continue study of curriculum, instruction, and assessment issues. Research opportunities, additional methods in content areas, and preparation of M.Ed. portfolio included. Letter grading.

498A-498B-498C. Directed Field Experience. (2 to 8 each) Clinical, to be arranged. Field experiences designed to increase understanding of student fields of study. May be repeated for credit. S/U or letter grading.

499A-499B-499C. Advanced Directed Field Experience. (4 to 8 each) Clinical, to be arranged. May be repeated for credit. S/U or letter grading.

501. Cooperative Program in Special Education. (2 to 6) Tutorial, to be arranged. Preparation: consent of UCLA academic adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to UCLA doctoral students in special education. Used to record enrollment in practicum courses taken under cooperative arrangements with USC. S/U grading.

506. Directed Independent Study. (4 to 12) Tutorial, to be arranged (four hours for every 4 units). Individual study or research for graduate students. May be repeated for credit. S/U or letter grading.

509. Internship Research. (2 to 12) Tutorial, to be arranged (four hours for every 4 units). Research for and preparation of master's thesis. May be repeated for credit. S/U grading.
The Department of Electrical Engineering fosters a dynamic academic environment that is committed to a tradition of excellence in teaching, research, and service and has state-of-the-art research programs and facilities in a variety of fields. Departmental faculty members are engaged in research efforts across several disciplines in order to serve the needs of industry, government, society, and the scientific community. Interactions with other disciplines are strong. Faculty members regularly conduct collaborative research projects with colleagues in the Geffen School of Medicine, Graduate School of Education and Information Studies, School of Theater, Film, and Television, and College of Letters and Science.

There are three primary research areas in the department: circuits and embedded systems, physical and wave electronics, and signals and systems. These areas cover a broad spectrum of specializations in, for example, communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization, integrated circuits and systems, microelectromechanical systems (MEMS), nanotechnology, photonics and optoelectronics, plasma electronics, signal processing, and solid-state electronics.

The program grants one undergraduate degree (Bachelor of Science in Electrical Engineering) and two graduate degrees (Master of Science and Doctor of Philosophy in Electrical Engineering). The graduate program provides students with an opportunity to pursue advanced coursework, in-depth training, and research investigations in several fields.

**Undergraduate Study**

The Electrical Engineering major is a designated capstone major. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Within a multidisciplinary team structure, students identify, formulate, and solve engineering problems and present their projects to the class.

**Electrical Engineering B.S. Capstone Major**

The undergraduate curriculum allows Electrical Engineering majors to specialize in one of three emphasis areas or options. The three options are structured as an electrical engineering degree, and the only degree offered to undergraduate students by the department is the Bachelor of Science degree in Electrical Engineering.

No distinction is made among the three options: (1) electrical engineering (EE) option is the regular option that provides students with preparation in electrical engineering with a range of required and elective courses across several disciplines; (2) computer engineering (CE) option provides students with preparation in embedded systems and software and hardware issues. Students replace some of the senior courses in the regular EE option with computer engineering-oriented courses or computer science courses; and (3) biomedical engineering (BE) option provides students with exposure to additional chemistry and life sciences courses and helps them meet most of the premedical preparation requirements so that they are prepared for careers in bioengineering, medicine, or electrical engineering.

**Electrical Engineering Option**

**Preparation for the Major**

*Required: Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL; Computer Science 1, 2, 3, 10, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL.*

*The Major*

*Required: Electrical Engineering 101, 102, 103, 110, 110L, 113, 115A, 115AL, 121B, 131A, 132A, 141, 161, Mathematics 132, Statistics 105; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and three major field elective courses (12 units), one design course (4 units), and one laboratory course (2 to 4 units) selected from one of the following pathways:*  

- **Antennas and Microwaves:** Three major field elective courses from Electrical Engineering 162A, 163A, and 163B or 163C; one capstone design course from 164D or 184DA/184DB (count as one course); and one laboratory course from 164L (or by petition from 194 or 199).
- **Integrated Circuits:** Three major field elective courses from Electrical Engineering 115B, 115C, and 132B or 163A; one capstone design course from 115D or 184DA/184DB (count as one course); and one laboratory course from 115BL (or by petition from 194 or 199).
- **Microelectromechanical (MEMS) Systems:** Three major field elective courses from Electrical Engineering 115B or 123A or 124, 128 or 163A or 173, and CM150; one capstone design course from 129D; and one laboratory course from 122L or CM150L (or by petition from 194 or 199).
- **Photonics and Plasma Electronics:** Three major field elective courses from Electrical Engineering 172, 173, and 174 or 175 or M185; one capstone design course from 173D; and one laboratory course from 170L (or by petition from 194 or 199).
- **Signals and Systems:** Three major field elective courses from Electrical Engineering 114, 115B, 131B, 132B, 136, 142, 162A; one capstone design course from 113D, 173D, 180D, 181D, or 184DA/184DB (count as one course); and one laboratory course from 115BL or M116L or M171L (or by petition from 194 or 199).
- **Solid State:** Three major field elective courses from Electrical Engineering 123A, 123B, and 124 or 128; one capstone design course from 129D; and one laboratory course from 122L (or by petition from 194 or 199).

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

**Biomedical Engineering Option**

*Preparation for the Major*  

*Required: Bioengineering CM186; Electrical Engineering 1, 2, 3, 10, M16 (or Computer Science M51A); Life Sciences 2, 3, 23L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL.*  

*The Major*  

*Required: Electrical Engineering 101, 102, 103, 110, 110L, 113, 115A, 115AL, 131A, Mathematics 132, Statistics 105; three general breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and three major field elective courses (12 units), one design course (4 units), and one laboratory course (2 units) selected from the biomedical engineering pathway as follows: three major field elective courses from Bioengineering CM186, Electrical Engineering 114, 132A, 141, and 176 or Mechanical and Aerospace Engineering 105A; one capstone design course from Electrical Engineering 113D or 180D; and one laboratory course from Bioengineering CM187 or Electrical Engineering M171L (or by petition from 194 or 199).*
Computer Engineering Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A; Computer Science 31, 32, 33, 35L; Electrical Engineering 1, 2, 3, 10, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL.

The Major

Required: Electrical Engineering 101, 102, 103, 110, 110L, 113, 115A, 115C, M16C (or Computer Science M151B), 131A, 132B or Computer Science 118, Mathematics 132. Statistics 105; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and three major field elective courses (12 units), one design course (4 units), and one laboratory course (2 to 4 units) selected from the computer engineering pathway as follows: three major field elective courses from Computer Science 111, M117 (or Electrical Engineering 132A), and 131 or 132 or 180; one capstone design course from Electrical Engineering 113D, 180D, 181D, or 184DA/184DB (count as one course); and one laboratory course from Electrical Engineering M116L (or by petition from 194 or 199).

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa /library/pgmrqintro.htm. 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.

Electrical 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 electromagnetics with 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, four hours; discussion, one hour; outside study, seven hours. Requisite: course 1. Introduction to concepts of modern physics necessary to understand solid-state devices, including elementary quantum theory, Fermi energies, and concepts of electrons in solids. Discussion of electrical properties of semiconductors leading to operation of junction devices. Letter grading.

3. Introduction to Electrical Engineering. (3) Lecture, two hours; laboratory, two hours; outside study, five hours. Introduction to field of electrical engineering: research and applications across several areas, such as communications, control, electromagnetic, embedded computing, engineering optimization, integrated circuits, MEMS, nanotechnology, photonics and optoelectronics, and device physics. Control of electrical power, linear and nonlinear circuits, and solid-state electronics. Letter grading.


M16. Logic Design of Digital Systems. (4) (Same as Computer Science M51A.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. Specification and implementation of combinational and sequential systems. Standard logic modules and programmable logic arrays. Specification and implementation of algorithmic systems: data and control sections. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grading.

Upper Division Courses


101. Engineering Electromagnetics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 1 or Physics 1C, Mathematics 32A and 32B, or 33A and 33B. Electromagnetic field concepts, waves and phasors, transmission lines and Smith charts, transverse waves, vector analysis, introduction to Maxwell equations, static and quasi-static electric and magnetic fields. Letter grading.


103. Applied Numerical Computing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Civil Engineering 15 or Computer Science 31, Mathematics 33A, 33B (33B may be taken concurrently). Introduction to numerical computing and analysis. Floating point representation and round-off error; numerical methods for systems of linear equations; methods for systems of nonlinear equations. Introduction to numerical optimization, linear programming, least squares, interpolation, approximation, numerical integration; and differential equations. Letter grading.

110. Circuit Analysis II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 110. Sinusoidal excitation and phasors, AC steady state analysis, AC steady state power, network functions, poles and zeros, frequency response, mutual inductance, ideal transformer, application of Laplace transforms to circuit analysis. Letter grading.

110L. Circuit Measurements Laboratory. (2) Laboratory, four hours; outside study, two hours. Requisites: course 110 or 110. Experiments with basic circuits, including op-amps. Ohm’s law voltage and current division, Thevenin and Norton equivalent circuits, superposition, transient and steady state analysis, and frequency response principles. Letter grading.


113L. Digital Signal Processing Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 113. 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 word-length effects. Course project involving original design and implementation of digital signal processing systems for communications, speech, audio, or video using DSP chip. Letter grading.

114. Speech and Image Processing Systems Design. (4) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: course 113. Design principles of speech and image processing systems. Speech production, analysis, and modeling in first half of course; design techniques for enhancement, filtering, and transformation 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. Enforced requisite: courses 110L, 115A. Experimental determination of device characteristics, resistive diode circuits, single-stage amplifiers, compound transistor stages, effect of feedback on single-stage amplifiers, operational amplifiers, and operational amplifier circuits. Introduction to hands-on design experience. Fast Fourier transform. Analysis, design, and implementation of operational amplifier circuits. Letter grading.


115BL. Analog Electronics Laboratory II. (4) Laboratory, four hours; outside study, eight hours. Enforced requisite: course 115B. Recommended corequisite: course 115D. Study of high-frequency effects in discrete circuit design. Laboratory experiments include transmission lines, tuned amplifiers, oscillators, mixers, and broadband amplifiers. Hands-on experience in construction of surface-mount circuits and their characterization. Letter grading.

115C. Digital Electronic Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 115A, Computer Science M51A. Recommended: course 115B. Transistor-level digital circuit analysis and design. Modern logic families (static CMOS, pass-transistor, dynamic logic), integrated circuit (IC) layout, digital circuits (logic gates, flipflops/latches, counters, etc.), computer-aided simulation of digital circuits. Letter grading.

locked loops, and frequency synthesizers. Introduction to design of analog-to-digital and digital-to-analog converters. (2) Computer Science M151B. Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M16 or Computer Science M51A. Computer-aided design of computer memories, virtual memory organization and management set design, memory hierarchy (caches, main memory, and secondary memory). Letter grading.

M116C. 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-aided design of computer memories, virtual memory organization and management set design, memory hierarchy (caches, main memory, virtual memory) organization and management, input/output subsystems (bus structures, interrupt, DMA), performance evaluation, pipelined processors. Letter grading.

M116L. Introductory Digital Design Laboratory. (2) (Same as Computer Science M152A.) Laboratory, four hours; outside study, two hours. Requisites: course M16 or Computer Science M51A. Hands-on design experience with MOS transistors, equivalent circuits, high-level 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.

M117. Computer Networks: Physical Layer. (4) (Same as Computer Science M117.) Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, three hours. Open to electrical engineering majors in junior/senior standing with credit for course M171L. Introduction to fundamental computer communication concepts underlying and supporting modern networks, with focus on wireless communications and media access layers of network protocol stack. Letter grading.

121A. Principles of Semiconductor Device Design. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 2. Introduction to principles of operation of bipolar and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

122L. Semiconductor Devices Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: courses 2, 121B (may be taken for credit before fabrication and characterization of p-n junction and transistors. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metallization, and photolithography. Letter grading.

123A. Fundamentals of Solid-State I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 2 or Physics 1C. Limited to junior/senior engineering majors. Fundamentals of solid-state introduction to quantum mechanics and quantum statistics applied to solid-state. Crystal structure, energy levels in solids, and band theory and semiconductor properties. Letter grading.

123B. Fundamentals of Solid-State II. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 123A. Discussion of solid-state properties, lattice vibrations, thermal properties, dielectric, magnetic, and superconducting properties. Letter grading.

124. Semiconductor Physical Electronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 123A. Band 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.

128. Principles of Nanoelectronics. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Requisites: course 1, or Physics 1A and 1B. Introduction to fundamentals of nanoscience for electronics nanosystems. Principles of fundamental quantities: electron charge, effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems such as analysis of dynamics, variability, and noise, contrasted with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronic nanosystems. Letter grading.

129D. Semiconductor Testing and Device Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 121B. Introduction to CAD tools used in integrated circuit layout and design. Device design optimization tool is based on PISCES; process integration tool is based on SUPREM. Course familiarizes students with those tools. Using CAD tools, CMOS process design flows are introduced. Letter grading.

131A. Probability. (4) Lecture, four hours; discussion, one hour; outside study, ten hours. Requisites: course 102, Mathematics 32B, 33B. Introduction to basic concepts of probability, including random variables and vectors, distributions and densities, moments, characteristic functions, and limit theorems. Applications to communication, control, and signal processing. Introduction to computer simulation and generation of random numbers. Letter grading.

131B. Introduction to Stochastic Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A. Stochastic processes, emphasizing continuous- and discrete-time stationary processes, correlation function and spectral density, linear transformation, and mean-square estimation. Applications to communication, control, and signal processing. Letter grading.


139. Linear Systems: State-Space Approach. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 131A. Mathematical modeling of physical control systems in form of differential equations and transfer functions. Design problems, system performance indices of feedback control systems via classical techniques, root-locus and frequency-domain design methods. Computational solution of design problems from real world. Letter grading.


143. Active Microwave Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 131B. MESFET, HEMT, HBT, IMPATT, Gunn, small signal analysis, noise models, large signal model, load-pull method, parameter extraction technique. Letter grading.

146C. Active Microwave Circuits. (4) Lecture, three hours; discussion, one hour; outside study, nine hours. Enforced requisites: courses 115A, 161. Theory and design of microwave solid-state devices. Adders, mixers, multipliers, phase shifters, power dividers, directional couplers, filters, hybrid junctions, monolithic microwave integrated circuits. Letter grading.

150DL. Photonic Sensor Design Laboratory. (4) Lecture, two hours; laboratory, four hours; outside study, eight hours. Limited to seniors. Multidisciplinary course with lectures and laboratory experiments on optical sensors. Fundamentals of intensity and interferometric-based transducers, polarimeters, multiplexing and sensor networks, physical and biomedical sensors. Design and implementation of optical gyroscopes, computer interfacing, and signal processing. Letter grading.

150ML. Introduction to Micromachining and Microelectromechanical Systems (MEMS) Laboratory. (Same as Bioengineering CM150L and Mechanical and Aerospace Engineering CM180L.) Lecture, one hour; laboratory, four hours; outside study, one hour. Requisites: course CM150, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to micromachining technologies and microelectromechanical systems. Students go through process of fabricating MEMS devices. Concurrently scheduled with course CM250L. Letter grading.

161. Electromagnetic Waves. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced 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, phase and group velocity, radiation, and antennas. Letter grading.


163A. Introductory Microwave Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 161. Transmission lines description of waveguides, impedance transformers, power dividers, directional couplers, filters, hybrid junctions, nonreciprocal devices. Letter grading.

163B. Microwave and Millimeter Wave Active Devices. (4) Lecture, three hours; discussion, one hour; outside study, nine hours. Enforced requisite: course 121B. MESFET, HEMT, HBT, IMPATT, Gunn, small signal analysis, noise models, large signal model, load-pull method, parameter extraction technique. Letter grading.

163C. Active Microwave Circuits. (4) Lecture, three hours; discussion, one hour; outside study, nine hours. Enforced requisites: courses 115A, 161. Theory and design of microwave solid-state devices. Adders, mixers, multipliers, phase shifters, power dividers, directional couplers, filters, hybrid junctions, monolithic microwave integrated circuits. Letter grading.

164D. Microwave Wireless Design. (4) Lecture, one hour; laboratory, four hours; outside study, seven hours. Enforced requisite: course 161. Microwave in integrated circuit design from wireless system perspective, with focus on (1) use of microwave circuit simula-
tion tools, (2) design of wireless frontend circuits including low noise amplifier, mixer, and power amplifier (PA) knowledge and skills required in wireless integrated circuit characterization and implementation. Letter grading.

164L. Microwave Wireless Laboratory. (2) Lecture, one hour; laboratory, three hours; outside study, three hours. Recommended: course 161. Measurement techniques and instrumentation for active and passive microwave components; cavity resonators, waveguides, waveguiders, slotted lines, directional couplers, design, fabrication, and characterization of microwave circuits in microstrip and coaxial systems. Letter grading.

170L. Laser Laboratory. (4) (Formerly numbered 172L.) Laboratory, four hours; outside study, eight hours. Enforced requisite or corequisite: course 101. Properties of lasers, including saturation, gain, mode structure. Laser applications, including optics, modulation, communication, holography, and interferometry. 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 M116L. Limited to 15 students with consent of instructor for course M117. Interpretation of analog-signaling aspects of digital systems and communication systems through experiments. Designing components that generate and display signals in relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, desktop computers, terminals, modern PCs, and workstations, and on pulse transmission impairments, waveforms and their spectra, modern and terminal characteristics, and interfaces. Letter grading.

172. Introduction to Lasers and Quantum Electronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 101. Physical applications and principles of lasers, semiconductor optoelectronic devices for optical communications, laser oscillation and amplification, cw and pulsed lasers. Letter grading.


173D. Photons and Communication Design. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisite: course 101. Recommended: course 132A. Introduction to measurement of basic photonic devices, including LEDs, lasers, detectors, and amplifiers; fiber-optic fundamental measurements and measurement of fiber systems. Modulation techniques, including A.M., F.M., and direct detection. Letter grading.

174. Semiconductor Optoelectronics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: 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), vertical cavity lasers, optical modulators and amplifiers, and typical photonic systems. Letter grading.

176. Photons in Biomedical Applications. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 172. Study of different types of optical systems and their physics background. Examination of their roles in current and projected biomedical applications. Specific capabilities of photonic devices to be related to each example. Letter grading.

180D. Systems Design. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Limited to senior Electrical Engineering majors. Advanced systems design. Key concepts in 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.

181D. Robotic Systems Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisites: courses M16, 110L, 116L (or Computer Science M116). Recommended or corequisites: courses 113, 141, Computer Science 35L Design of robotics systems that combine embedded hardware, software, mechanical subsystems, and fundamental algorithms for sensing and control to expose students to basic concepts in robotics and current state of art. Letter grading.

184DA-184DB. Independent Group Project Design. (2-2) (Formerly numbered 184D.) Laboratory, five hours; discussion, one hour. Enforced requisites: courses M16, 110, 110L. Course 184DA is enforced requisite to 184DB. Courses centered on group project that runs each semester for students to investigate the extensive experience on hardware design, microcontroller programming, and project coordination. Several projects based on a common design environment, or on projects of small groups and course offerings vary from year to year. Letter grading.

188. Special Courses in Electrical Engineering. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 101. Special topics in electrical engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methodology and current literature in field. May be repeated for credit. Letter grading.

199. Directed Research in Electrical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petition available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

180A. VLSI Design Automation. (4) Lecture, four hours; laboratory, four hours; outside study, eight hours. Preparation: one undergraduate linear algebra course. Designed for first-year graduate students in all branches of engineering, science, and related disciplines. Introduction to computer-aided design. Letter grading.

190A. Matrix Analysis for Scientists and Engineers. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: course 132A or Computer Science 118, and Computer Science 118 Computer science and electrical engineering students. Interdisciplinary course with focus on study of distributed embedded systems concepts needed to realize systems such as wireless sensor and actuator networks for monitoring and control of physical world. Topics include network self-configuration with localization and timing synchronization; energy-aware system design and operation protocols for MAC and channel access; network disruption tolerance; programming issues and models with language, OS, database, and middleware; in-network collaborative processing; fundamental characteristics of wireless coverage, debate over low-power techniques for exploitation and management of actuation and mobility; data and system integrity issues with calibration, faults, debugging, and security; and usage issues such as human interfaces and safety. Letter grading.

190C. Networked Embedded Systems Design. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: course 172. Introduction to design and implementation of embedded systems and technologies for design of embedded systems. Letter grading.

190A. Matrix Analysis for Scientists and Engineers. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: course 132B or Computer Science 118, and Computer Science 118 Computer science and electrical engineering students. Interdisciplinary course with focus on study of distributed embedded systems concepts needed to realize systems such as wireless sensor and actuator networks for monitoring and control of physical world. Topics include network self-configuration with localization and timing synchronization; energy-aware system design and operation protocols for MAC and channel access; network disruption tolerance; programming issues and models with language, OS, database, and middleware; in-network collaborative processing; fundamental characteristics of wireless coverage, debate over low-power techniques for exploitation and management of actuation and mobility; data and system integrity issues with calibration, faults, debugging, and security; and usage issues such as human interfaces and safety. Letter grading.

205A. Matrix Analysis for Scientists and Engineers. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: course 132B or Computer Science 118, and Computer Science 118 Computer science and electrical engineering students. Interdisciplinary course with focus on study of distributed embedded systems concepts needed to realize systems such as wireless sensor and actuator networks for monitoring and control of physical world. Topics include network self-configuration with localization and timing synchronization; energy-aware system design and operation protocols for MAC and channel access; network disruption tolerance; programming issues and models with language, OS, database, and middleware; in-network collaborative processing; fundamental characteristics of wireless coverage, debate over low-power techniques for exploitation and management of actuation and mobility; data and system integrity issues with calibration, faults, debugging, and security; and usage issues such as human interfaces and safety. Letter grading.


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M208C. Topics in Functional Analysis for Applied Mathematics and Engineering. (4) (Same as Mathematics M268B.) Lecture, four hours; outside study, eight hours. Prerequisite: M208B. Semigroups and linear operators over Hilbert spaces; generator and resolvent, generation theorems, Laplace inversion formula. Dissipative operators and contraction semigroups. Applications to evolution and spectral representation. Semigroups with compact resolvents. Parabolic and hyperbolic systems. Controllability and stabilizability. Spectral theory of differential operators, PDEs, generalization. S/U or letter grading.

209AS. Special Topics in Circuits and Embedded Systems. (4) Lecture, four hours; outside study, eight hours. Special topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U or letter grading.

209BS. Seminar: Circuits and Embedded Systems. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U grading.


210B. Optimal Linear Estimation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 113, 131B, 210A, Mathematics 115A. Unified treatment of fundamental concepts and basic notions in adaptive estimation and filtering, Kalman filtering, and 

251D. Analog Microsystem Design. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215A, 215B. 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.


215C. Analysis and Design of RF Circuits and Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: course 215A. Principles of RF circuit and system design, with emphasis on monolithic implementation in VLSI technologies. Basic concepts, communication and information theory, architectures, low-noise amplifiers and mixers, oscillators, frequency synthesizers, power amplifiers. Letter grading.


215E. Signaling and Synchronization. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215A, 216A. Analysis and design for clock generation, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) (Same as Computer Science M258A.) Lecture, four hours; discussion, one hour; laboratory, four hours; outside study, three hours. Requisites: courses M16 or Computer Science M51A, and 115A. Recommended: course 119C. LSI/VLSI design and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

216B. VLSI Signal Processing. (4) Lecture, four hours; outside study, eight hours. Advanced concepts in VLSI signal processing, with emphasis on architectures and optimization within block-based designs. Computer design can be mapped to functional concepts from digital signal processing (DSP) theory, architecture, and circuit design applied to complex DSP algorithms in emerging applications for personal communications and healthcare. Letter grading.

M216C. LSI in Computer System Design. (4) (Same as Computer Science M258C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisites: course M16A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

217. Biomedical Imaging. (4) (Same as Bioengineering M217.) Lecture, three hours; outside study, nine hours. Requisite: course 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4) Lecture, four hours; outside study, eight hours. Discussion of how different cooperative and noncooperative strategies among agents in a modeling framework can be analyzed, optimize, and shape emerging interactions among users in different networks and system settings. How strategic agents can successfully compete with each other for limited and time-varying resources by optimizing their decision process and learning from their past interaction with other agents. To determine their optimal actions in these distributed, informally decentralized environments, agents need to learn and model directly or implicitly other agents’ responses to their actions. Discussion in detail of several existing multiagent learning techniques that can be successfully deployed in multiagent systems. Letter grading.

221A. Physics of Semiconductor Devices I. (4) Lecture, four hours; outside study, eight hours. Physical principles and design considerations of junction devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Lecture, four hours; outside study, eight hours. Prerequisite and design considerations of field effect devices and charge-coupled devices. Letter grading.

222. Microwave Semiconductor Devices. (4) Lecture, four hours; outside study, eight hours. Physical principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, tunnel diodes, microwave transistors. 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 transport properties in semiconductors, Monte Carlo method in transport. Optical properties. Letter grading.
225. Physics of Semiconductor Nanostructures and Devices. (4) Lecture, four hours; outside study, eight hours. Requisite: course 223. Theoretical methods for understanding electronic and optical properties of semiconductor structures. Quantum size effects and low-dimensional systems. Application to semiconductor nanometer scale devices, including negative resistance diodes, transistors, and detectors. Letter grading.

229. Seminar: Advanced Topics in Solid-State Electronics. (4) Seminar, four hours; outside study, eight hours. Requisite: courses 223, 224. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electronic materials. Letter grading.

229S. 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 and quantum electronics (Section 1) or in electronic circuit theory and applications (Section 2). Students report on tutorial topic and on research topic in their dissertation area. May be repeated for credit. Letter 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 to communication and radar engineering; random signal and noise characterization by analytical and simulation methods; mean square (MS) and maximum likelihood (ML) estimations; optimum detection under ML 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; analysis and design of 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. Requisite: 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, NTT, 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 in lossy compression, and information theory for multiple users. Letter grading.

231E. Channel Coding Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Fundamentals of error control codes and decoding algorithms. Topics include block codes, convolutional codes, and Reed-Solomon codes. 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 stochastic processes as applied to study of telecommunication systems and traffic engineering. Renewal theory; discrete-time Markov chains; continuous-time Markov jump processes. Applications to traffic and queueing analysis of basic telecommunication system 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 network departmental communication systems. Topics include architectures, multiplexing and multiple-access, message delays, error/flow control, switching, routing, protocols. Applications to local-area, packet-radio, satellite, and computer communication networks. Letter grading.

232E. Graphs and Network Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 136. Solution to analysis and synthesis problems that may be formulated as flow problems in capacity constrained (or cost constrained) networks. Development of tools of network flow theory using graph theoretic methods; applications to traffic, transport, and transmission problems. Letter grading.

233. Wireless Communication Systems. (4) Formerly numbered 233B). Lecture, four hours; outside study, eight hours. Requisite: course 230B. Various aspects of physical layer and medium access design for wireless communication systems. Topics include wireless signal propagation and channel modeling, single carrier and spread spectrum modulation for wireless communication systems; multiple-access schemes, transceiver design and effects of non-deal components, hardware partitioning issues. Case study highlights system level trade-offs. Letter grading.


M237. Dynamic Programming. (4) (Same as Mechanical and Aerospace Engineering M276.) Lecture, four hours; outside study, eight hours. Recommended prerequisites: courses 113, 131A. Introduction to mathematical analysis of sequential decision processes. Finite horizon model in both deterministic and stochastic cases. Finite-state infinite horizon model. Methods of solution. Examples from inventory theory, finance, optimal control and estimation, Markov decision processes, combinatorial optimization, communications. Letter grading.

238. Multimedia Communications and Processing. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 113, 131A. Key concepts, principles, and algorithms of real-time multimedia communications and processing across heterogeneous Internet and ATM communication channels to flexible and low-cost infrastructure, new networks and communication channels enable variety of delay-sensitive multimedia transmission applications and provide varying resources with limited support for quality of service required by delay-sensitive, bandwidth-intensive, and loss-tolerant multimedia applications. New concepts, principles, theories, and practical solutions for cross-layer design of optimal adaptation for time-varying channel characteristics, adaptive and delay-sensitive applications, and multimedia transmission environments. Letter grading.

239AS. Special Topics in Signals and Systems. (4) Lecture, four hours; outside study, eight hours. Special topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U or letter grading.

239B. Seminar: Signals and Systems. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U or letter grading.

239C. Seminar: Signals and Systems. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U or letter grading.

M240A. Linear Dynamic Systems. (4) (Same as Chemical Engineering M280A and Mechanical and Aerospace Engineering M270A.) Lecture, four hours; outside study, eight hours. Requisite: course 141 or Mechanical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principles. Connections with transfer function techniques. Letter grading.

240B. Linear Optimal Control. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 141, M240A. 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. Requisite: course 240B. Applications of variational methods, Pontryagin maximum principle, Hamilton-Jacobi-Bellman equation, dynamic programming to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.

241A. Stochastic Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 313B. Random process models: basic concepts, properties. Stationary random processes: covariance

241C. Stochastic Control. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 240B, 241B. Linear theory of optimal control and feedback control of stochastic systems; discrete-time state-space models; sigma algebra equivalence and separation principle; dynamic programming; compensator design for time-invariant systems; feedback control and servomechanisms, extensions to nonlinear systems; applications to interception guidance, gust alleviation. Letter grading.


243. Robust and Optimal Control by Convex Methods. (4) Lecture, four hours; outside study, eight hours. Requisite: course M240A. Multivariable robust control, including H2 and H-infinity optimal control and robust performance analysis and synthesis against structured uncertainty. Emphasis on convex methods for analysis and design, in particular linear matrix inequality (LMI) approach to control. Letter grading.

M248S. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M297 and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers in systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

CM250A. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4) (Same as Bioengineering CM250A and Mechanical and Aerospace Engineering CM280A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4L, 4BL. Introduction to micromachining and microelectromechanical systems (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS devices, including micromotors, microsensors, and microactuators. Students design microfabrication processes capable of achieving desired MEMS device. Concurrently scheduled with course CM150. Letter grading.

CM250B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering CM250B and Mechanical and Aerospace Engineering M280B.) Lecture; three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course CM150 or CM250A. Advanced discussion of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as problems in process integration and materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

CM250L. Introduction to Micromachining and Microelectromechanical Systems (MEMS) Laboratory. (2) (Same as Bioengineering CM250L and Mechanical and Aerospace Engineering CM280L.) Lecture, one hour; laboratory, four hours; outside study, one hour. Requisites: courses CM250A, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4L, 4BL. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS) laboratory. Methods and techniques to design and develop new devices. These devices can be used in a variety of MEMS, including microstructures, microsensors, and microactuators.

Students go through process of fabricating MEMS de- vice. Concurrently scheduled with course CM150L. Letter grading.

252. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengi- neering M252 and Mechanical and Aerospace Engi- neering M252.) Lecture, four hours; outside study, eight hours. Study of the physics of MEMS devices and the design of MEMS devices. Topics include surface physics, thin-film deposition, and device design. Letter grading.

255. Neuroengineering. (4) (Same as Bioengi- neering M256 and Neuroscience M256B.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 23A, Physics 1B or 6B. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology, action potentials, local field potentials, EEG, ECOG, intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, filtering), and stimulation methods. Introduction to brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.


257. Nanoscience and Technology. (4) (Same as Mechanical and Aerospace Engineering M257.) Lecture, four hours; outside study, eight hours. Enforced requisite: course CM250A. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assem- bly) nanofabrication, nanoelectronics and nanomaterials, nanoelectronics, and nanobiodevice technology. Introduction to new knowledge and tech- niques in nano areas to understand scientific princi- ples behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Let- ter grading.


266. Computational Methods for Electromagnet- ics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 162A, 163A. Computational techniques for partial differential and integral equations; finite-difference, finite-element, method of moments. Applications include transmission lines, resonators, integrated circuits, solid-state device modeling, electromagnetic scattering, and antennas. Letter grading.


274. Fiber Optic System Design. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 173D and/or 174. Top-down introduction to physical layer design in fiber optic communication systems, in- cluding Telecom, Datacom, and CATV. Fundamentals of digital and analog optical communication systems, fiber transmission characteristics, and optical modula- tion techniques, including direct and external modula- tion and optical fiber lasers. Detailed design of a fiber optic transceiver circuit, including pre- amplifier, quantizer, clock and data recovery, laser driver, and predistortion circuits. Letter grading.

279AS. Special Topics in Physical and Wave Elec- tromagnetics. (4) Lecture, four hours; outside study, eight hours. Special topics in one or more aspects of physical and wave electronics, such as electromagnetic, microwave and millimeter wave circuits, photonic and optoelectronics, plasma electronics, microelec-
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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://grad.ucla.edu/gasaa /library/pgmrqintro.htm. 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), Master of Science (M.S.) online degree in Engineering, 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

10A. Introduction to Complex Systems Science. (8) Formerly numbered M10A.) Lecture, four hours. How macroscopic patterns emerge from local interactions of large number of interdependent (often heterogeneous) entities, without global design or central control. Such emergent order, whose explanation cannot be reduced to explanations at level of individual entities, is ubiquitous in biology and human social collectives, but also exists in certain physical processes such as earthquakes and some chemical reactions. Complexity deals with how such systems undergo sudden changes, including catastrophic breakdowns, in absence of external force or central influence. Key aspect of biological and social collectives is their nature as complex adaptive systems, where individuals and groups adjust their behavior to external conditions. In biological and social systems, complexity science goes beyond traditional mathematical and statistical models that better capture these complex, adaptive, and self-organizing phenomena. Letter grading.


279BS. Seminar: Physical and Wave Electronics. (2 to 4) Seminar, two to four hours; outside study, four hours. Seminars and discussions on current and advanced topics in one or more aspects of physical and wave electronics, such as electromagnetic, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state, and nanotechnology. May be repeated for credit with topic change. S/U grading.

299. M.S. Project Seminar. (4) Seminar, to be arranged. Required of all M.S. students not in thesis option. Supervised research in small groups or individually under guidance of faculty mentor. Regular meetings, culminating report, and presentation required. Individual contract required; enrollment petitions available in Office of Graduate Student Affairs. S/U grading.

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

475C. Manufacturing Systems. (4) Lecture, four hours; outside study, eight hours. Modeling and analysis of manufacturing systems. Assembly and transfer lines, facility layout and design, Group technology and flexible manufacturing systems. Planning and scheduling. Task management, machine setup, and operation sequencing. Manufacturing system models. Manufacturing information systems. Social, economic, environmental, and regulatory issues. Letter grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate engineering students. Petition form to request enrollment may be obtained from assistant dean, Graduate Student Affairs. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate electrical 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 engineering students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate electrical 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 electrical engineering students. Usually taken after students have been advanced to candidacy. 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://grad.ucla.edu/gasaa /library/pgmrqintro.htm. 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), Master of Science (M.S.) online degree in Engineering, 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

10A. Introduction to Complex Systems Science. (8) Formerly numbered M10A.) Lecture, four hours. How macroscopic patterns emerge from local interactions of large number of interdependent (often heterogeneous) entities, without global design or central control. Such emergent order, whose explanation cannot be reduced to explanations at level of individual entities, is ubiquitous in biology and human social collectives, but also exists in certain physical processes such as earthquakes and some chemical reactions. Complexity deals with how such systems undergo sudden changes, including catastrophic breakdowns, in absence of external force or central influence. Key aspect of biological and social collectives is their nature as complex adaptive systems, where individuals and groups adjust their behavior to external conditions. In biological and social systems, complexity science goes beyond traditional mathematical and statistical models that better capture these complex, adaptive, and self-organizing phenomena. Letter grading.

87. Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Introduction to engineering as professional opportunity for freshman students by exploratory differences between engineering disciplines and the roles and functions engineers perform. Development of skills and techniques for academic excellence through team process. Investigation of national need underlying current effort to increase participation of historically underrepresented groups in U.S. technological workforce. Letter grading.

95. Internship Studies in Engineering. (2 to 4) Tutorial, two to four hours. Limited to freshmen/sophomores. Internship studies course supervised by associate dean or designated faculty members. Further supervision to be provided by organization for which students are doing internship. Students may be required to meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated for credit. Individual contract with associate dean required. P/NP grading.

98. What Students Need to Know about Careers in Engineering. (2) Seminar, two hours. Introduction to skills and aptitudes that most engineers require in their careers and description of big picture of engineering careers. Integrating framework provided to relate specifics of engineering courses to real world of engineer and roadmap of extracurricular activity that strengthens skills needed to acquire good jobs and achieve career success. P/NP grading.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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Engineering

Lower Division Courses

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87. Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Introduction to engineering as professional opportunity for freshman students by exploratory differences between engineering disciplines and the roles and functions engineers perform. Development of skills and techniques for academic excellence through team process. Investigation of national need underlying current effort to increase participation of historically underrepresented groups in U.S. technological workforce. Letter grading.

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98. What Students Need to Know about Careers in Engineering. (2) Seminar, two hours. Introduction to skills and aptitudes that most engineers require in their careers and description of big picture of engineering careers. Integrating framework provided to relate specifics of engineering courses to real world of engineer and roadmap of extracurricular activity that strengthens skills needed to acquire good jobs and achieve career success. P/NP grading.
Upper Division Courses

M101. Principles of Nanoscience and Nanotechnology. (Formerly Nanotechnology M101.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20, and Electrical Engineering 1 or Physics 1C. Introduction to underlying concepts of nanotechnology, including components and fabrication of technologically important nanoscale systems. New phenomena that emerge in very small systems (typically with feature sizes below few hundred nanometers) are explained using basic concepts from physics and chemistry. Chemical, optical, and electronic properties, electron transport, structural stability, self-assembly, templated assembly and application of various nanostructures such as quantum dots, nanoparticles, quantum wires, quantum wells and multilayers, carbon nanotubes. Letter grading.

102. Synthetic Biosystems and Nanosystems Design. (4) Lecture, four hours; outside study, eight hours. Requisites: course M101, Life Sciences 3. Introduction to current progress in engineering to integrate biosciences and nanoscale into synthetic systems, where biological and synthetic components are engineered and rewired to perform desirable functions in both intracellular and cell-free environments. Discussion of basic techniques and systems analysis that deal with dynamic behavior, noise, and uncertainties. Design project in which students are challenged to design novel biosystems and nanosystems for non-trivial tasks and applications.

103. Environmental Nanotechnology: Implications and Applications. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course M101. Introduction to potential implications of support of environmental systems as well as potential application of nanotechnology to environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanoscale materials in natural environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

110. Introduction to Technology Management and Economics for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamentals of mid-level (individual) and macro-level (government, international) economics as they relate to technology management. How individuals, firms, and governments impact technology commercialization and high technology products and services. Letter grading.

111. Introduction to Finance and Marketing for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of finance and marketing research and practice as they impact management of technology commercialization. Internal (within firm) and external (in marketplace) marketing and finance of high-technology innovation. Concepts include present value, future value, discounted cash flow, internal rate of return, return on assets, return on equity, return on investment, interest rates, capital product, price, positioning, and promotion. Use of market research, segmentation, and forecasting in management of technological innovation. Letter grading.

112. Laboratory to Market, Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of entrepreneurship, finance, marketing, human resources, and accounting disciplines as they impact management of technology commercialization. Topics include intellectual property management, team building, market forecasting, and entrepreneurial finance. Students work in small teams studying technology management principles, commercializing new technologies to market. Students select from set of available technology concepts, many generated at UCLA, that are in need of plans for movement from laboratory to market. Letter grading.

113. Product Strategy. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for juniors/seniors. Introduction to current management of technology commercialization. Topics include product strategy, product platform, and product lines; competitive strategy; vectors of differentiation; product pricing, first-to-market versus fast-follow; product development timeline, growth through acquisition, and new ventures; product portfolio management. Case studies, class projects, group discussions, and guest lectures by successful entrepreneurs. Letter grading.

180. Engineering of Complex Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for junior/senior engineering majors. Holistic view of engineering discipline, covering lifecycle of engineering, processes, and techniques that are used in industry today. Multidisciplinary systems engineering perspective in which aspects of electrical, mechanical, material, and software engineering are incorporated. Three specific case studies in communication, sensor, and processing systems included to help students understand these concepts. Special attention paid to link material covered to engineering curriculum. Offered by UCLA to help students integrate and enhance their understanding of knowledge already acquired. Motivation of students to continue their learning and reinforce lifelong learning habits. Letter grading.

183EW. Engineering and Society. (Formerly numbered 183.) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 185EW. Limited to sophomore/junior senior engineering students. Professional and ethical considerations in practice of engineering. Impact of technology on society and on development of moral and ethical values. Contemporary environmental, biological, legal, and other issues created by new technologies. Emphasis on research and writing within engineering discipline. Course requirement of about 20 pages total, including two individual technical essays and one team-written research paper. Readings address technical issues and writing form. Satisfies engineering writing requirement. Letter grading.

185EW. Art of Engineering Endeavors. (Formerly numbered 185.) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 183EW. Designed for junior/senior engineering students. Technology, and experiences necessary for engineering career success. Importance of group dynamics in engineering practice. Teamwork and effective group skills in engineering environments. Art and science of multidisciplinary complex engineering projects. Forms of leadership and qualities and characteristics of effective leaders. How engineering, computer sciences, and technology relate to major ethical and social issues. Societal demands on practice of engineering. Emphasis on research and writing in engineering environment. Satisfies engineering writing requirement. Letter grading.

188. Special Courses in Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident or visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

195. Internship Studies in Engineering. (2 to 4) Tu- torial, two to four hours. Limited to juniors/seniors. Internships are arranged between associated dean or designated faculty members. Further supervision to be provided by organization for which students are doing internship. Students may be required to meet on regular basis with advisor and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated for credit. Individual contract with associate dean required. PIN grading.

199. Directed Research in Engineering. (2 to 8) Tu- torial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Course work and progress toward project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Program Management Principles for Engi- neers and Professionals. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Critical review of project management principles and procedures to successfully manage technology programs. Review of fundamentals of program planning, organizational structure, implementation, and performance tracking methods to provide program management 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. Critical review of major elements of system 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.

202. Reliability, Maintainability, and Supportability. (4) Lecture, four hours; outside study, eight hours. Requisite: course 201. Designed for graduate students with one to two years work experience. Integration of system support (ILS) into the product development life cycle cost and one key element of system engineering activities. Overview of engineering disciplines critical to this function — reliability, maintainability, and supportability — and their qualitative and quantitative use using probability theory. Topics also include fault detections and isolation and parts obsolescence. Discussion of 6-sigma process, one effective design and manufacturing methodology, to ensure system reliability, maintainability, and supportability. Letter grading.

203. System Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course 201. Des- signed for graduate students with B.S. degrees in en- gineering or science and one to two years work experience in selected domain. Art and science of archi- tecting. Introduction to architectural methodology — paradigm and tools. Principles of archit ecting through and through, architecture design major drivers on system. Discussion of selected elements of architectural practices, such as representation models, design pro- gression, and architecture frameworks. Examination of professionalism of system architecting. Letter grading.

204. Trusted Systems Engineering. (4) Lecture, four hours. Trust is placed in information systems to behave properly, but cyber threats and breaches have become routine, including penetration of financial, medical, government, and national security systems. To build systems that can protect confidentiality, integ- rity, and availability involves more than composing systems from network security, computer security, data security, cryptography, etc. One can use most secure components, and resulting system could still be vulnerable. Skills learned form a foundation that are architected, designed, implemented, tested, and op- erated for specific levels of trust. Aspects include as- sessing vulnerability and risk for systems, establishing protection principles, and use of a risk-assessment framework to formulate system architectures; translating architecture into system design and verifying correctness of design; and constructing and following trusted develop- ment and implementation processes. Letter grading.

215. Entrepreneurship for Engineers. (Formerly numbered 210.) Lecture, four hours. Limited to graduate engineering students. Topics in starting and developing high-tech enterprises and intended for students who wish to complement their technical education with introduction to entrepreneurship. Letter grading.

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ENGLISH

College of Letters and Science

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Saree Makdisi, Ph.D.
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Anne K. Mellor, Ph.D.
Harriette R. Mullin, Ph.D.
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Jonathan F.S. Post, Ph.D.
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Mark S. Seltzer, Ph.D.
Jennifer A. Sharpe, Ph.D.
Debora K. Shuger, Ph.D.
Mona E. Simpson, M.F.A.
Donka Minkova Stockwell, Ph.D.
Robert N. Watson, Ph.D. (Waldo W. Neikirk Term Professor)
Richard A. Yarborough, Ph.D.
Stephen I. Yenser, Ph.D.

Professors Emeriti
Michael J. Allen, Ph.D., D.Litt.
Martha Banta, Ph.D.
Charles L. Batten, Jr., Ph.D.
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Martha Banta, Ph.D.
Charles A. Berst, Ph.D.
Frederick L. Burwick, Ph.D.
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Reginald A. Foakes, Ph.D.
Patrick K. Ford, Ph.D.
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George R. Guffey, Ph.D.
Janet R. Hadda, Ph.D.

N. Katherine Hayles, Ph.D. (John Charles Hillis Professor Emerita of Literature)
Ursula C. Heise, Ph.D.
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Paul R. Sellin, Ph.D.
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Eric J. Sondquist, Ph.D. (UCLA Foundation Professor Emeritus)
Alexander Welsh, Ph.D.
Thomas R. Wortham, Ph.D.

Associate Professors
Christine N. Chirs, Ph.D.
Elizabeth M. DeLoughrey, Ph.D.
Lowell Gallagher, Ph.D.
Yogie Goyal, Ph.D.
Jonathan H. Grossman, Ph.D.
Rachel C. Lee, Ph.D.
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Arthur L. Little, Jr., Ph.D.
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Caroline A. Streeter, Ph.D.

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Michael Cohen, Ph.D.
Matthew N. Fisher, Ph.D.
Carrie L. Hyde, Ph.D.
Louise Hornby, Ph.D.
Sarah T. Kareem, Ph.D.
Marissa K. Lopez, Ph.D.
Uri G. McMillan, Ph.D.
Juan L. Sánchez, Ph.D.
Brian K. Stelans, Ph.D.

Senior Lecturers S.O.E.
Jerome Cushman, A.B., B.S.L.S., Emeritus
Stephen J. Dickey, Ph.D.
David Stuart Rodes, Ph.D., Emeritus

Senior Lecturers
Karen J. Cunningham, Ph.D.
Joseph A. Dimuro, Ph.D.
Christopher M. Mott, Ph.D.

Adjunct Professor
Carolyn See, Ph.D., Emeritus

Adjunct Associate Professor
Jeffrey L. Decker, Ph.D.

Adjunct Assistant Professors
Mitchum A. Huehls, Ph.D.
Leila Kucukalici, Ph.D.
Reed D. Wilson, 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 a primary language. Although committed to no single method or approach, the department requires a knowledge of British, American, and Anglophone literary history and an engagement with a range of methodological approaches that foster intellectual curiosity and critical thinking and encourage its students to be not only expert readers and writers but engaged and ethical citizens.
An understanding and appreciation of literature can furnish lifelong rewards. In addition to offering students such personal benefits, the department seeks to foster critical analysis and lucid writing and to teach them to think about how language and representation function in the world. Such skills are essential to success in a variety of professions for which the major in English can provide excellent preparation, including law, administration, business, teaching, media, and entertainment.

Within the B.A. degree in English, qualified students may elect a concentration in creative writing. The department also offers a Bachelor of Arts degree in American Literature and Culture.

When selecting courses to fulfill requirements for the majors, students are expected to choose those that best reflect their own interests and simultaneously contribute toward a coherent program in literary studies.

A graduate program leading to the Master of Arts degree is available for students who wish not only for qualified students who are seriously preparing for the Ph.D. degree. Because the Ph.D. program is designed primarily for students who wish to pursue teaching and research careers, the department also offers a Bachelor of Arts degree in American Literature and Culture.

When selecting courses to fulfill requirements for the Ph.D., students may elect a concentration in creative writing and to teach them to think about how language and representation function in the world. This concentration provides an excellent preparation for students who are seriously preparing for the Ph.D. degree.

Preparation for the Major

Required: English Composition 3, English 4W or 4HW or 4WS, 10A, 10B, 10C taken in the stated sequence (each course is a requisite for the next course). A grade of C or better is required in each course.

Transfer Students

Transfer applicants to the English major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or a combination of foreign language and foreign literature courses.

Refer to the UCLA Transfer Admission Guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten 4- or 5-unit upper division English courses, including (1) four historical period courses, one from each of the following four periods: (a) literature in English to 1500 — course 140A through 148 or indicated sections of 149, (b) literatures in English, 1500 to 1700 — course 150A through 157 or indicated sections of 159, (c) literatures in English, 1700 to 1850 — course 160A through 168, 176, or indicated sections of 169, and (d) literatures in English, 1850 to present — course M101B, M101C, M102A, M102B, M104A through M104D, M105B through M105E, 130, 131, 164B, 164C, 164D, 167A, 167B, 168, 170A through 174C, 176, or indicated sections of 179; (2) three breadth courses, one from each of the three following four areas: (a) gender, race, ethnicity, disability, and sexuality studies — English 100 through 109, M126, 135, 155, 163C, 165B, 166C, or indicated sections of 119, 139, 149, 159, 169, or 179, (b) imperial, transnational, and postcolonial studies — course M105A through M105D, 112D, 128, 130 through 135, 154, 157, 163B, 164D, 165A, 166A, 166B, 176, or indicated sections of 149, 159, 169, or 179, (c) genre studies, interdisciplinary studies, critical theory — course 110 through 129, 144, 146, 147, 153, 156, 161A, 161B, 161C, 163A, 163C, 164A through 164D, 167A, 167B, 171A through 177, or indicated sections of 149, 159, 169, or 179, and (d) creative writing — courses 136, 137, 138; (3) two elective courses; (4) one seminar from course 180 through 183C, or M191A through M191E. Admission to creative writing workshops (courses 136, 137, 138) is by application only. Each course applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

Creative Writing Concentration

The creative writing concentration consists of the same requirements as the major, with the exception that one breadth course must be taken from the creative writing area (English 136, 137, 138), and both electives must be creative writing workshops (courses 136, 137, 138). All other requirements remain the same. 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 136, 137, or 138) 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.

American Literature and Culture B.A.

Capstone Program

Students are expected to meet with the undergraduate counselors and undergraduate faculty adviser to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

Preparation for the Major

Required: English Composition 3, English 4W or 4HW or 4WS, 10A, 10B, 10C taken in the stated sequence (each course is a requisite for the next course). A grade of C or better is required in each course.

Transfer Students

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or a combination of foreign language and foreign literature courses.

Refer to the UCLA Transfer Admission Guide for up-to-date information regarding transfer selection for admission.

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Required: Ten 4- or 5-unit upper division English courses, including (1) four historical period courses, one from each of the following four periods: (a) literature in English to 1500 — course 140A through 148 or indicated sections of 149, (b) literatures in English, 1500 to 1700 — course 150A through 157 or indicated sections of 159, (c) literatures in English, 1700 to 1850 — course 160A through 168, 176, or indicated sections of 169, and (d) literatures in English, 1850 to present — course M101B, M101C, M102A, M102B, M104A through M104D, M105B through M105E, 130, 131, 164B, 164C, 164D, 167A, 167B, 168, 170A through 174C, 176, or indicated sections of 179; (2) three breadth courses, one from each of the three following four areas: (a) gender, race, ethnicity, disability, and sexuality studies — English 100 through 109, M126, 135, 155, 163C, 165B, 166C, or indicated sections of 119, 139, 149, 159, 169, or 179, (b) imperial, transnational, and postcolonial studies — course M105A through M105D, 112D, 128, 130 through 135, 154, 157, 163B, 164D, 165A, 166A, 166B, 176, or indicated sections of 149, 159, 169, or 179, (c) genre studies, interdisciplinary studies, critical theory — course 110 through 129, 144, 146, 147, 153, 156, 161A, 161B, 161C, 163A, 163C, 164A through 164D, 167A, 167B, 171A through 177, or indicated sections of 149, 159, 169, or 179, and (d) creative writing — courses 136, 137, 138; (3) two elective courses; (4) one seminar from course 180 through 183C, or M191A through M191E. Admission to creative writing workshops (courses 136, 137, 138) is by application only. Each course applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

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Students may not enroll in more than one workshop (course 136, 137, or 138) 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.
M107B, 108, 109 when treating American topics or figures); 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). Each course applied toward requirements for the major must be at least 4 units and be taken for a letter grade.

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 120 or 121 (may fulfill one of three required breadth courses) no later than Winter Quarter of the junior year and one seminar from the English M180 through M191E sequence, preferably before the senior year. Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H. In Spring Quarter of the junior year, students must take course 191H (may fulfill one of two electives for the major). During Fall and Winter Quarters of the senior year, they take courses 198A and 198B, in which they write a thesis under the direction of a faculty member (198B may fulfill the second of two electives for the major). The thesis determines whether they receive highest honors, honors, or no honors.

English Minor

The English minor is designed for students who wish to enhance their major program with the benefits of intensive study of English language and literatures, including a better understanding and appreciation of literatures in English and improvement in critical thinking, reading, and writing skills.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed English 10A with a grade of C or better, and have satisfied the English Composition 3 requirement and completed English 4W. Students must file a petition to declare the minor before the senior year. For application forms and further information, contact the departmental counselor.

Admission

This allows students 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 before the senior year. For application forms and further information, contact the departmental counselor.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa/programintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in English.

English

Lower Division Courses

4HW. Critical Reading and Writing (Honors). (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of four papers (three to five pages each) and two in-class essays. Satisfies Writing II requirement. Letter grading.

4W. Critical Reading and Writing. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of four papers (three to five pages each) and two in-class essays. Satisfies Writing II requirement. Letter grading.

4WS. Critical Reading and Writing (Service Learning). (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of six papers, with minimum of 15 to 20 pages of revised writing. Service learning component includes minimum of 20 hours service with agency involved in issues of public advocacy and social justice. Satisfies Writing II requirement. Letter grading.

10A. Literatures in English to 1700. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10B. Literatures in English, 1700 to 1850. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW, 10A. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10C. Literatures in English, 1850 to Present. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW, 10A, 10B. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

20. Introduction to Creative Writing. (4) Lecture, four hours. Preparation: submission of creative or expository writing samples to screening committee. Enforced requisites: satisfaction of Entry-Level Writing requirement, English Composition 3 or 3H. Designed to introduce fundamentals of creative writing. Emphasis either on poetry, fiction, or creative writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

M40. Structure of English Words. (5) (Same as Linguistics M10.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation.

M50. Introduction to Visual Culture. (5) (Same as Film and Television M50.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including advertising, still and moving images, and narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.

80. Major American Authors. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses in 170 series. Introduction to chief American authors, with emphasis on poetry, 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 Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses in 170 series. Introduction to the American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

88A-88Z. Lower Division Seminars: Special Topics in English. (5 each) Seminar, three hours. Limited to 15 students. Content varies; see departmental counselor for information. P/NP or letter grading.

88A. Medieval Literature; Medieval Fiction; Medieval Drama; 17th-Century Literature; 18th-Century Literature; 19th-Century Literature; 20th-Century Literature;

88B. 17th-Century Literature; 18th-Century Literature; 19th-Century Literature; 20th-Century Literature; 21st-Century Literature;

88C. History of English Language; 88L. Folk-
lore and Mythology, 88M. Literature and Society; 88SL. Service Learning. Seminar, three hours; fieldwork, three hours; analysis, discussion, and written assignments about works of literature that raise issues relevant to contemporary society. Service learning component includes minimum of 20 hours service with agency involved in issues of public advantage. P/NP or letter grading.

90. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors. Prerequisites: English 122, 123, or 124; or equivalent. Survey of Shakespeare’s plays, including comedies, tragedies, and histories, selected to represent Shakespeare’s breadth, artistic progress, and total dramatic achievement. P/NP or letter grading.

91A. Introduction to Poetry. (Formerly numbered 95A.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Recommended for instructional credential candidates. Study of critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity, form and structure) and aesthetic issues, including evaluative criteria, followed by close critical analysis of selected representative poems. P/NP or letter grading.

91B. Introduction to Drama. (5) (Formerly numbered 95B.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to prose narrative, plays and written forms (folktales, spirituals, sermons; fiction, oral and written narratives) and to selected Renaissance and early modern plays; readings may range from Greek to modern drama. Emphasis on critical approaches to dramatic text; study of issues such as plot construction, characterization, special uses of language in drama, methods of evaluation. P/NP or letter grading.

91C. Introduction to Fiction. (5) (Formerly numbered 95C.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to prose narrative, its techniques and forms. Analysis of short and long narratives and of critical issues such as plot, characterization, setting, narrative voice, realism 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 anticipate entering English honors program during their junior year. Content varies; see departmental counselor for information. P/NP or letter grading.

Upper Division Courses

100. Introduction to Ethnic Studies. (5) (Not the same as course 100 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introduction to academic study of race and ethnicity, with primary focus on literature. Through examination of institutions that form understanding of race—citizenship, nationalism, class, gender, and labor—interrogation of how we come to think of ourselves and others as having race, and effects of such racialized thinking. Course is not about any particular racial or ethnic group, but highlights creation of ethnic categories and their effects on cultural production. P/NP or letter grading.

M101A. Premodern Queer Literatures and Cultures. (5) (Not same as course M101A prior to Fall Quarter 2011.) (Same as Gender Studies M105A and Lesbian, Gay, Bisexual, and Transgender Studies M101A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of the period of queer literary and cultural production from before the rise of the modern conversation, including oral materials (ballads, blues, speeches) and written forms (folktale, spiritual, sermons, fiction, poetry, novel, autobiography). Course may include rise of Black Arts Movement of 1960s and specialization in queer literatures and cultures. P/NP or letter grading.

M101B. Queer Literatures and Cultures after 1970. (5) (Formerly numbered M101B.) (Same as Gender Studies M105B and Lesbian, Gay, Bisexual, and Transgender Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of the period of queer literary and cultural production by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Holleran, Leslie Feinberg, Acht Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (5) (Formerly numbered M101C.) (Same as Gender Studies M105D and Lesbian, Gay, Bisexual, and Transgender Studies M101D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, format, and thematic perspectives. Topics may include African American autobiography, 20th-century African American literature and film, black diaspora literature, postmodern African American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M102A. Historical Survey of Asian American Literature. (5) (Formerly numbered M102A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Asian American literature either produced by or focused on Asian American communities of the 20th century. Issues include immigration, diaspora, general political and social conflict, appropriation of cultural traditions, ethnic/gender formation, interethnic dynamics, and social movement. Works by such authors as Edith Stein, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

M102B. Contemporary Asian American Literature and Society. (5) (Formerly numbered M102B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) (Same as Disability Studies M103.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of modes of disabled narratives and of disability as a thematic concern. Topics may include introduction to disability studies; race, gender, and disability; disability narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M104A. Early African American Literature. (5) (Same as Afro-American Studies M104A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from 18th century through World War I, including oral and written forms (folktales, spirituals, sermons, fiction, poetry, novel, autobiography). May include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M104B. African American Literature from Harlem Renaissance to 1940s. (5) (Same as Afro-American Studies M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of African American literature from New Negro Movement of post-World War I period to 1940s, including oral and written forms (folktales, spirituals, sermons, fiction, poetry, novel, autobiography). Topics may include Zora Neale Hurston, Langston Hughes, Zora Neale Hurston, Langston Hughes, Nella Larsen, James Baldwin, and James Baldwin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M104C. African American Literature and Society since 1940. (5) (Same as Afro-American Studies M104C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of African American literature from late 1940s to 1990s, including oral and written forms (folktales, spirituals, sermons, fiction, poetry, novel, autobiography). Topics may include Ralph Ellison, James Baldwin, and James Baldwin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M104D. Contemporary African American Literature. (5) (Same as Afro-American Studies M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from 1980s to present covering range of genres, with emphasis on diversity of perspectives and styles that have emerged over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M105A. Chicana/Chicana Literature. 1400 to 1920. (5) (Same as Chicana and Chicano Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from poetry of Triple Alliance and Aztec Empire through end of Mexican Revolution (1920), including oral and written forms (poetry, corridos, testimonios, folktales, novels, short stories, and drama) by writers such as Nezahualcoyotl (Hungry Coyote), Cabaza de Vaca, Lorenzo de Zavala, Maria Amparo Ruiz de Burton, Eusebio Chacon, Daniel Venegas, and Lorenzo Villegas de Magón. P/NP or letter grading.

M105B. Chicana/Chicana Literature from Mexico Revolution to el Movimiento, 1920 to 1970s. (5) (Same as Chicana and Chicano Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from 1920s through Great Depression and World War II, ending with Chicana/Chicana civil rights movement. Oral and written narratives by writers including Conrado Espinoza, Jovita González, Cleofas Jaramillo, Angelina Paredes, and Segundo Acosta, and Evangelina Vigil. P/NP or letter grading.

M105C. Chicana/Chicana Literature since el Movimiento, 1970s to Present. (5) (Formerly numbered M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central and South
American migration have shaped 21st-century Chicana/o and mestizaje, border zones, enclaves and language, read in relation to such topics as relationship between authors and their works. Representative works explore topics relating to Chicana/o/Latino populations and U.S. cultural sphere, struggle for self-determination, experiences of exile and migration, border zones, spaces and mestizaje and its impact on cultural production. P/ NP or letter grading.

M105D. Introduction to Latina/Latino Literature. (Same as Chicana and Chicano Studies M105D.) Lecture; four hours, discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of U.S. Latina/Latino literature and introduction to its major critical trends, with emphasis on groups of Caribbean, Mexican, South American, and European origin. Representative works are read in relation to such topics as relationship between Latina/Latino populations and U.S. cultural sphere, struggle for self-determination, experiences of exile and migration, border zones, spaces and mestizaje and its impact on cultural production. P/ NP or letter grading.

M105E. Studies in Chicana/Chicano and/or Latina/Latino Literature. (Same as Chicana and Chicano Studies M105E.) Seminar; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Experimental topics course to give students broad introduction to issues and themes in Chicana/Chicano and/or Latina/Latino Literature. Topics include border, immigration, revolution, language, gender, sexuality, and diaspora, among others. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

105SL. Seminar: Chicana/Chicano and/or Latina/Latino Literature — Service Learning. (Same as Chicana and Chicano Studies M105SL.) Seminar; four or more hours; field placement; three or four hours. Enforced requisite: English Composition 3 or 3H. Specialized studies in Chicana/Chicano and/or Latina/Latino literature. In-depth study of various topics relevant to Chicana/o communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicana journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicana and/or Latina/Latino community and selected by instructor. P/ NP or letter grading.

106. Studies in Native American and Indigenous Literatures. (5) Lecture; four hours, discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of Native American and/or transcontinental Native literatures. Topics include oral traditions and histories, colonization and sovereignty, identity and place in comparative perspectives, and multiple genres and forms such as novel, poetry, drama, visual arts, dance, song, and film. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M107A. Studies in Women’s Writing. (5) (Formerly numbered M107A.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Focus on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as authorship, self-writing, sexuality, gender, and genre. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M107B. Studies in Gender and Sexuality. (5) (Same as course M107B prior to Fall Quarter 2011.) (Same as Gender Studies M107B and Lesbian, Gay, Bisexual, and Transgender Studies M107B.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional vectors of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

108. Intercultural Encounters. (5) (Formerly numbered 178B.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literary and/or cinematic texts produced by people from different ethnic and religious backgrounds and providing comparative cultural perspectives on living in multilingual societies. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

109. Topics in Race, Ethnicity, Gender, and Sexuality Studies. (5) (Same as course 110 prior to Fall Quarter 2011.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for author, period, genre, or subject to be studied. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

110. Studies in Genre. (5) (Formerly numbered 110.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of particular topic, genre, or subgenre in literature such as satire, biography, parody, or specialization. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

111A. Hebrew Bible in Translation. (5) (Formerly numbered 108A.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Literary study of Hebrew Bible (Old Testament), with emphasis on literary devices and narrative structures in relation to Judaic historical, political, psychological, philosophical, and theological themes. P/ NP or letter grading.


111C. Topics in Biblical Literature. (5) (Formerly numbered 108C.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of myth, dramatic origins, oral epic, folktale, and ballad. P/ NP or letter grading.

112A. Oral Traditions. (5) (Formerly numbered 111A.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of myth, dramatic origins, oral epic, folktale, and ballad. P/ NP or letter grading.

112B. Celtic Mythology. (5) (Formerly numbered 111D.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of early textual materials pertaining to Celtic peoples and their stories, with emphasis on techniques of mythological analysis. P/ NP or letter grading.

112C. Survey of Medieval Celtic Literature. (5) (Formerly numbered 111E.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Knowledge of Irish or Welsh would be helpful for students. This course traces Celtic literature from earliest times to 14th century. P/ NP or letter grading.

112D. Celtic Folklore. (5) (Formerly numbered 111F.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to colonial and postcolonial issues and folkloristic methods. P/ NP or letter grading.

113A. History of English Language. (5) (Formerly numbered 121.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of English majors of main features in grammatical, lexical, and phonetic condition of English language from Indo-European time to present. P/ NP or letter grading.

113B. Introduction to Present-Day English. (5) (Formerly numbered 122D.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of English major features in grammatical, lexical, and phonetic condition of English language from Indo-European time to present. P/ NP or letter grading.

114. Lyric Histories. (5) (Same as course 114 prior to Fall Quarter 2011.) Lecture; four hours; discussion, one hour (when scheduled). P/ NP or letter grading.

115A. American Popular Literature. (5) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of such popular genres as western, detective, science fiction, supernatural tales, Hollywood novels, and other kinds of mass literary expression. P/ NP or letter grading.

115B. British Popular Literature. (5) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Reading in literature of British masses, from 16th-century broadsides to contemporary novels. Examination of social and cultural aspects of literature. P/ NP or letter grading.

115C. Literature for Children and Adolescents. (5) (Formerly numbered 112.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature intended mainly for students in junior and senior high schools. P/ NP or letter grading.

115D. Detective Fiction. (5) (Formerly numbered 117.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of British and American detective fiction and literature of detection. P/ NP or letter grading.

115E. Science Fiction. (5) (Formerly numbered 118.) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of science fiction and speculative literatures. P/ NP or letter grading.

116A. Experimental Fiction. (5) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of novels and short stories that employ playful or experimental practices in language, narrative, hybridity (genre, medium), typography, and other material aspects of text such as binding and book design. Focus generally on texts from 20th century and later, but can include readings dating to beginning of novel. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

116B. Introduction to Electronic Literature. (5) Lecture; four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of animated and interactive poetry, multimedia works, video game narrative, and works employing network and print-based works influenced by digital culture. Basic introduction to new media theory. P/ NP or letter grading.
117. Literature of California and American West. (5) (Formerly numbered 119.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature in English dealing with exploration, settlement, and emergent cultural awareness of Western U.S. P/NP or letter grading.

118A. Interdisciplinary Studies in Literature. (5) (Formerly numbered 109.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literatures in English in relation to other disciplines such as sciences, history, politics, philosophy, music, photography, visual studies, psychology. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118B. Literature and Other Arts. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Investigation of relationship of literature to one or more other arts, including music (opera, musical theater, popular music, jazz), painting, photography, other visual arts, sculpture and other plastic arts, performance art, dance, architecture. Topics vary and may include not only English literature but foreign literatures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118C. Studies in Visual Culture. (5) (Formerly numbered 118.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of visual images (photography, film, video) and their relation to literary and/or popular culture. Topics include adaptation, visual analysis, word and image, image and culture, film and visual culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119. Literary Cities. (5) (Not same as course 119 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban village or cosmopolitan hub, segregated dystopia or postmodern future, and impact of exile, tourism, and migration in making of cities. May be repeated for credit with topic or instructor change. P/NP or letter grading.

120. History of Aesthetics and Critical Theory. (5) (Formerly numbered 140A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Investigation of some dominant trends in 19th- and 20th-century aesthetics, critical theory, and interpretation. Topics may include Marxism, psychoanalysis, phenomenology, existentialism, feminism, and postcolonialism. May not be repeated for credit. P/NP or letter grading.

122. Keywords in Theory. (5) (Not same as course 122 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Taking its model from Raymond Williams' classic vocabulary of culture and society, investigation of fundamental theoretical concepts and keywords, that have emerged from variety of intellectual disciplines to shape literary and cultural studies. Consideration of lexical development of such keywords; how they assume historical and political discourses; textuality, readers, and authorship; and how they engage interpretive paradigms and methodologies for study of literature and culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

123. Theories of History and Historicism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Exploration of theories of historicity and historiography in postcolonial approaches to literary texts. Investigation of how theorists negotiate between abstract concepts of history and situated historical narratives, how histories are constructed, and how they are used to validate history. May be repeated for credit with topic or instructor change. P/NP or letter grading.

124. Theories of Religion. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Examination of relationship between literary and religious practices and traditions. Topics may include legacies of monotheism, theories of sacrifice, sacrament, gift, and mystical traditions, as well as history of allegory and theological approaches to reading. Selected topics may address literary applications of religious categories as treated in cultural anthropology, philosophy, and critical theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

125. Violence in Cultural Theory and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of violence in literature, ideological, political, and psychoanalytic perspectives. May be repeated for credit with topic or instructor change. P/NP or letter grading.

126. Feminist and Queer Theory. (5) (Same as Gender Studies M126 and Lesbian, Gay, Bisexual, and Transgender Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: one course from 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and debates in study of gender, sexuality, and kinship, with focus on their interrelated significance for making culture. Readings to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality in contemporary social and cultural contexts, and the role of cultural representations of mobility. May be repeated for credit with topic or instructor change. P/NP or letter grading.

127. Performance, Media, and Cultural Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Examination of concepts and modes of performance, culture, and/or media, broadly construed. Evaluation of different modes of inquiry around one or more of these concepts, as well as their intersection, in various intellectual traditions, including fields of cultural studies, performance studies, literary analysis, and film theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

128. Postcolonial and Transnational Study. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 130, 131. Exploration of methodological, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. Topics may include theories of subaltern, orientalist, feminist, and/or indigenous representations and history and may address representational issues of national sovereignty in wake of colonialism and neocolonialism. May be repeated for credit with topic or instructor change. P/NP or letter grading.

129. Topics in Genre Studies, Interdisciplinary Studies, and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

130. Introduction to Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Postcolonial literature and culture, with focus on contemporary literature and writings produced after decolonization, often engaging history of British or other empires with emphasis on postcolonial cultures of Africa, Caribbean, South Asia, and indigenous Pacific. May not be repeated for credit. P/NP or letter grading.

131. Studies in Postcolonial Literatures. (5) (Formerly numbered 169B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Strongly recommended: course 130. Survey of how colonialism and decolonization have shaped literary and cultural expression, with specific emphasis on regional or thematic concerns. Topics may include literatures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of indigenous Pacific. May be repeated for credit with topic or instructor change. P/NP or letter grading.

132. Culture and Imperialism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Exploration of relationship between political, economic and ideological imperialism through lens of literary texts to raise questions about what study of empire tells about relationship between power and knowledge. Discussion of shifting patterns and forms of imperialism, including how both metropolitan and peripheral or colonial spaces were transformed. Emphasis may be on particular historical periods and may be thematic or representational. Topics may include construction of gender, race, otherness, nature, religion, and nation. May be repeated for credit with topic or instructor change. P/NP or letter grading.

133. Transatlantic Literatures and Cultures. (5) (Not same as course 133 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Study of literatures of Atlantic to examine cultural, political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literatures of Brazil, U.S. coverage specfic Black and/or Afro-African, Caribbean, Mexico, South America, Spain, and other parts of Europe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

134. Nationalism and Transnationalism. (5) (Not same as course 134 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Examination of how critical frameworks of nation and migration, transnationalism and globalization, and tradition and modernity frame analysis of literary texts, particularly relationship between literature and national identity. Other topics include nation building in relationship to regional identities as well as discourses of national expansion, diaspora, resettlement, and exile and foundational narratives of nation in relationship to representations of mobility. Genres may include epic, romance, travel narrative, history, and autobiography. May be repeated for credit with topic or instructor change. P/NP or letter grading.

135. Literature of Americas. (5) (Not same as course 135 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Survey of literatures of Americas, with emphasis on complex ways in which nations and cultures of North America, South America, and Caribbean forge distinctively American perspective on global affairs. Spans literature from age of encounter to 19th-century U.S. American republic to 20th and Latin America. Study transcultural movements and beyond, considering such topics as empire, colonialism, slavery, transnational dynamics, and cross-cultural transformations among indigenous, Eu
144. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of devotional genres and their complex re-lations with the narrative frame to invite self-consciousness about powers of literary production itself. Texts may include cycles such as texts gathered as Matter of Britain, Matter of Rome, or Matter of France; also Malabog, manuscript collections such as Auchinleck manuscript or Exeter book, framed narratives such as Decameron, Canterbury Tales, 1001 Nights, and Gower’s Confessions of a Christian Exempla, legend, and dicta. May be repeated for credit with topic or instructor change. P/NP or letter grading.

146. Medieval Story Cycles and Collections. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Medieval histories survive in every language of medieval Britain, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Multilingual ubiquity of history writing points to pressures of present tense. Texts may include histories, chronicles, and historiographically engaged texts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

147. Medieval Histories, Chronicles, and Records. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of Milton, with emphasis on Paradise Lost. P/NP or letter grading.

148. Cultures of Middle Ages. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Interdisciplinary survey of particular medieval societies, with special emphasis on complex interactions between different ethnic and cultural traditions of medieval world. Examination of processes of intercultural encounter and transmission: classical or patristic traditions into medi- eval culture, oral literature, and literature of contact zones, including interactions between Celtic, Anglo, and Norman societies, and debates between Pagans, Jews, Christians, and Muslims. May be repeated for credit with topic or instructor change. P/NP or letter grading.

149. Medievalisms. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of religious thought and practice associated with Reformation and Counter-Reformation enterprises in early modern period and consideration of how various types of writing — poems, prayer books, sermons, historical chroni-cles, essays, travel narratives — reflect and assess religious ferment of era. Coverage of ei ther broad historical range such as from Henry VIII’s break with Rome to execution of Charles I or one specific topic such as varieties of martyrdom, art of con-fession, or conversion narratives. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150A. Shakespeare: Poems and Early Plays. (5) (Formerly numbered 142A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of repertoire of major works in their cultural context. May be repeated for credit with topic or instructor change. P/NP or letter grading.

151. Milton. (5) (Formerly numbered 143.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of Milton, with emphasis on Paradise Lost. P/NP or letter grading.

152. Literatures of English Renaissance and Early Modern Period. (5) (Formerly numbered 151.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works in their cultural context. May be repeated for credit with topic or instructor change. P/NP or letter grading.

153. Theatrical Renaissance: Early Modern Texts and Performances. (5) (Formerly numbered 152B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. May include professional and amateur performances in court, cities, churches, and countryside of varied sorts of texts — masques, religious drama, secular drama, charivari — alongside examination of texts, performers, and performance spaces from 1509 to 1642. May be repeated for credit with topic or instructor change. P/NP or letter grading.

154. Renaissance Worlds. (5) (Not same as course 154 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. May be repeated for credit with topic or instructor change. P/NP or letter grading.

155. Renaissance Subjects. (5) (Not same as course 155 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. May be repeated for credit with topic or instructor change. P/NP or letter grading.

156. Devotion and Dissent. (5) (Not same as course 156 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of religious thought and practice associated with Reformation and Counter-Reformation enterprises in early modern period and consideration of how various types of writing — poems, prayer books, sermons, historical chroni-cles, essays, travel narratives — reflect and assess religious ferment of era. Coverage of ei ther broad historical range such as from Henry VIII’s break with Rome to execution of Charles I or one specific topic such as varieties of martyrdom, art of con-fession, or conversion narratives. May be repeated for credit with topic or instructor change. P/NP or letter grading.
157. Translation and Innovation in English Renaissance and Early Modern Period. (5) (Not same as course 157B prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of English Renaissance literature and culture in relation to literatures of antiquity and continental Renaissance. Epic tradition, forebears of novel, Renaissance humanisms, literature of love, monsters and marvels, representing nature, Ovidian themes to be repeated for credit with topic or instructor change. P/NP or letter grading.

159. Topics in Literature, circa 1500 to 1700. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works as literary documents and as products of Restoration and earlier 18th-century thought. P/NP or letter grading.

160A. Literature of Restoration and Earlier 18th Century. (5) (Formerly numbered 154.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works as literary documents and as products of later 18th-century thought. P/NP or letter grading.

160B. Literature of Later 18th Century. (5) (Formerly numbered 155.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pin- daric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to empire, and gendering of authorship. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161A. Drama in English to 1850. (5) (Formerly numbered 156.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of drama in English until 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161C. Novel in English to 1850. (5) (Formerly numbered 157.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of the novel until 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

162A. Earlier Romantic Literature. (5) (Formerly numbered 161.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Blake, Wollstonecraft, W. Wordsworth, Coleridge, and Austen, with collateral readings from such authors as Godwin, Burke, Paine, Radcliffe, Edgeworth, Baillie, C. Smith, Burns, Southey, D. Wordsworth, Lamb, DeQuincey, and Scott. P/NP or letter grading.

162B. Later Romantic Literature. (5) (Formerly numbered 162.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Byron, Keats, Percy Shelly, and Mary Shelley, with collateral readings from such authors as Hazlitt, Hunt, Landor, Clare, Moore, Peacock, Landon, Aikin, Hensman, and Prince. P/NP or letter grading.


163B. Transatlantic Romanticism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Transatlantic studies have been central in generating new conceptual issues related to interconnectedness of Atlantic rim cultures. Readings from work of Blake, Wordsworth, and other major literary figures of the transatlantic period. May be repeated for credit. P/NP or letter grading.

163C. Jane Austen and Her Peers. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Coverage of six novels of Jane Austen, as well as literary works that most influenced her: Mary Wollstonecraft’s Vindication of Rights of Woman, Gothic novel, and Maria Edgeworth’s Belinda. P/NP or letter grading.

164A. Earlier 19th-Century Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Developments in English poetic genres from time of Napoleon to Middle of 19th century. Readings enable students to understand Romantic and Victorian poetry, and to explore the nature of Romanticism; to understand the nature of poetry’s relationship to empire, and gendering of authorship. May be repeated for credit with topic or instructor change. P/NP or letter grading.

164B. 19th-century Critical Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of tradi- tions in critical thought from 1800 to 1800 in relation to development of cultural and literary criticism, social thought, and political writing. P/NP or letter grading.

164C. 19th-Century Novel. (5) (Formerly numbered 164.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of development of novel from 1800 to 1900, with focus on evolution of genre in relation to cultural, social, and political contexts in which readings were composed, circulated, and received. May be repeated for credit with topic or instructor change. P/NP or letter grading.

164D. Global 19th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of 19th-century world. Works investigated works engaged with 19th-century global forces, those that express distinctive colonial identities, myths, and religious visions. P/NP or letter grading.

165A. Imperial Culture, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of British poetic genres from time of Napoleonic Wars to middle of 19th century. Readings enable students to understand the nature of Romantic and Victorian poetry, and to explore the nature of Romanticism; to understand the nature of poetry’s relationship to empire, and gendering of authorship. May be repeated for credit with topic or instructor change. P/NP or letter grading.

165B. Gender, Sexuality, and Body, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question of gender in literature of period known for its importance system. Top- ics may include varying representations of gender and sexuality across period, gender and authorship, and literature of embodiment. May be repeated for credit with topic or instructor change. P/NP or letter grading.

166A. Colonial Beginnings of American Literature. (5) (Formerly numbered 170A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of American poetry across genres throughout period. Reading of poems that situate them in revolutionary context out of which they emerged, and to which they contributed. Recovery of sense of how literary and extra-literary currents engaged with political, economic, and aesthetic currents — political, economic, and aesthetic — in British Romantic period and its cultural context. Development of deeper understanding of nature of Romanticism itself. Readings from work of Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wollstonecraft, and others. May not be repeated for credit. P/NP or letter grading.

166B. American Literature, 1776 to 1832. (5) (Formerly numbered 170B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Historical survey of American literatures from Revolution through early republic, with emphasis on genres that reflect system- atic attempts to create representative national liter- ature and attention to American ethnic, gender, and postcolonial perspectives. P/NP or letter grading.

166C. American Literature, 1832 to 1865. (5) (Formerly numbered 171A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of American fiction from Jacksonian era to end of Civil War, including emergent American Romanticism, augmented and challenged by genres of popular protest urging adoption of democratic ide- als to questions of race, gender, and social equality. P/NP or letter grading.

167A. American Poetry to 1900. (5) (Formerly numbered 174A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of American poetry from Puritan period through and end of 19th century. May be repeated for credit. P/NP or letter grading.

167B. American Fiction to 1900. (5) (Formerly numbered 173A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of American fiction (both novels and short stories) from its beginning to end of 19th centu- ry. P/NP or letter grading.

168. Major American Writers. (5) (Not same as course 168 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Broad survey of representative American writers across several centu- ries, designed to give concise account of broad narra- tive of American literary development, from origins through 19th century. Includes mainly works that have traditionally been identified as American classics and asks both what makes American literature distinctive and what its relations are to other literatures in Eng- lish. P/NP or letter grading.

169. Topics in Literature, circa 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of literary history and current historiographical period. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

170A. American Literature, 1865 to 1920. (5) (Formerly numbered 171B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Historical survey of American literature from end of Civil War to beginning of 20th century, including writers such as Howells, James, Twain, Norris, Dickinson, Crane, Chesnutt,
Gilman, and others working in modes of realist and naturalist novel, regional and vernacular prose, and poetry, or literature of the 19th century. 

176B. American Literature, 1900 to 1945. (5) (Formerly numbered 174B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories from beginning of 20th century to end of World War II. P/NP or letter grading.

174B. American Fiction since 1945. (5) (Formerly numbered 173C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories since end of World War II. P/NP or letter grading.

174C. Contemporary American Fiction. (5) (Not same as course 181B prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories, mostly by living authors, with emphasis on emerging issues and poetic forms. May be repeated for credit with topic or instructor change. P/NP or letter grading.

174D. American Fiction since 1945. (5) (Formerly numbered 173C prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories from beginning of 20th century to end of World War II. P/NP or letter grading.

182A. Topics in Medieval Literature. (5) (Formerly numbered 181A.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for subject, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182B. Topics in Renaissance and Early Modern Literature. (5) (Formerly numbered 181B.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182C. Topics in 18th-Century Literature. (5) (Formerly numbered 181D.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182D. Topics in 19th-Century Literature. (5) (Formerly numbered 181F.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182E. Topics in 20th- and 21st-Century Literature. (5) (Formerly numbered 181G.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183A. Topics in Colonial American Literature. (5) (Formerly numbered 182A.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183B. Topics in 19th-Century American Literature. (5) (Formerly numbered 182B.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183C. Topics in 20th- and 21st-Century American Literature. (5) (Formerly numbered 182C.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

190H. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 198A or 198B. Designed to bring together students undertaking supervised tutorial research for departmental honors in seminar setting with one or more faculty members to discuss their own work in progress and their reading for honors projects. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

M191A. Topics in African American Literature. (5) (Formerly numbered M179A.) (Same as Afro-American Studies M179A.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in African American literature. Topics may include Harlem Renaissance,
nine courses required for first qualifying examination or engaging in intensive directed research project. May not be applied toward any course requirement for degree. Consult graduate counselor to enroll or obtain information. S/U or letter grading.

597. Preparation for Ph.D. Examinations. (4 to 12) Tutorial, to be arranged. Limited to Ph.D. students preparing for first qualifying examination or engaging in intensive directed research project. May not be applied toward any course requirement for degree. S/U grading.

599. Ph.D. Dissertation Research. (4 or 8) Tutorial, to be arranged. Limited to Ph.D. students unable to enroll in seminars in their fields or to students concurrently enrolled in such seminars. (Exception to this rule must be requested by petition.) S/U grading.

ENGLISH COMPOSITION
See Writing Programs
ENVIRONMENTAL HEALTH SCIENCES
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Jared M. Diamond, Ph.D.
Richard F. Ambrose, Ph.D.

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). The interdepartmental Molecular Toxicology Program also offers a Ph.D. degree.

In addition, a unique doctoral degree (Doctor of Environmental Science and Engineering — D.Env.) is offered by the Institute of the Environment and Sustainability which is administered through the College of Letters and Science.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/index.html. 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.

C125. Atmospheric Transport and Transformation of Airborne Chemicals. (4) Lecture, four hours. Preparation: one year of calculus, one year each in physics, organic chemistry, and physical chemistry. Designed for science, engineering, and public health students. Role of regional or long-range transport, and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C225. P/NP or letter grading.

C135. Environmental Policy for Science and Engineering. (4) Lecture, four hours. Limited to senior undergraduate and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing and enforcing each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-executing performance standards and permitting), market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alternatives assessment. Issues of compliance and enforcement. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organ systems. Concurrently scheduled with course C240. Letter grading.

C152D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C252D. P/NP or letter grading.

C157. Risk Assessment and Standard Setting. (4) Seminar, four hours. Preparation: course C140, Epidemiology 100. Designed to provide students with opportunity to review scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of science and regulatory standards. Concurrently scheduled with course C257. P/NP or letter grading.


M166. Environmental Microbiology. (4) (Same as Civil Engineering M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended 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.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1) (Same as Civil Engineering M166L.) Laboratory, two hours; outside study, two hours. Corequisite: course M166. General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory set-ups for studying environmental biotechnology. Letter grading.

C180. Principles of Nanobiological Interactions and Nanotoxicology. (4) Lecture, four hours. Preparation: basic understanding of biology and chemistry at level required for admission to University of California at undergraduate level in engineering, physical, or natural sciences. Introduction to commonly used vocabulary in nanoscience required to appreciate biological interactions and potential toxicity of nanomaterials. Discussion of synthesis and physical-chemical characterization of engineered nanomaterials. Development of understanding of unique properties of engineered nanomaterials and how these properties contribute to biological interactions. Relation of properties of engineered nanomaterials to their potential for transport, reactivity, uptake, and toxicity in natural environments and in body. Concurrently scheduled with course C280. P/NP or letter grading.


197. Individual Studies in Environmental Health Sciences. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evi-
Graduate Courses


200C. Case Studies in Environmental Health Sciences. (2) Lecture, two hours. Enforced requisites: courses C200A, C200B. Description of many leading environmental and occupational health problems, including environmental health practitioners face today, conducted as series of lectures, assignments, hands-on field exercises, and group projects, to help students develop skills necessary to integrate concepts across disciplines in field of environmental health. May satisfy some requirements needed to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.


205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, one hour. Requisites: courses C200A, C200B, 410A, 410B. Environmental chemistry aspects of environmental health sciences through multimedia analyses and biological and microbiological analyses. May be repeated for credit. S/U or letter grading.

207. Introduction to Geographic Information Systems. (4) Lecture, four hours; laboratory, four hours. Preparation: one ecology course. Application of ecological theory and principles to solve environmental problems, including conservation biology, assessment of environmental impacts, and restoration ecology and mitigation of environmental impacts. Letter grading.

206. Seminar: Applied Coastal Ecology. (2) Seminar, two hours. Discussion of various topics in applied coastal ecology. Topics vary from term to term and include aspects of environmental chemistry, ecology, toxicology, and policy. May be repeated for credit. S/U grading.


214. Children's Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year each of chemistry and biology. Examination of how environmental exposures to chemical, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysiological perturbations in homeostasis at any stage during life. Letter grading.

211. Epidemiologic Methods in Violent Injury. (4) (Same as Epidemiology M225.) Lecture, four hours. Requisites: Epidemiology 200A, 200B, and 200C (or 100). Description and critical evaluation of epidemiologic methods in approaches to understanding incidence risk factors and prevention strategies of violence and violence-related injury. Letter grading.

213. Ecotoxicology. (2) Seminar, two hours. Discussion of various topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, ecology, toxicology, and policy. 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 from term to term and include aspects of population activity, microenvironments, types of monitoring (indoor, outdoor, personal, biomarkers), and multimedia sources of exposure. S/U grading.

220. Laboratory Literacy for Public Health Professionals. (4) (Same as Epidemiology M225.) Lecture, two hours; laboratory, four hours. Preparation: introduction to microbiology. Requisites: Epidemiology 200A, 200B, and 200C (or 100). Designed to enable public health professionals with no laboratory knowledge to understand vocabulary and technologies of public health laboratories. Sample laboratory reports provided for discussion of implications for public health program actions. S/U or letter grading.

215. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environmental health sciences doctoral students. May be repeated for credit. S/U grading.

208. Built Environment and Health. (4) Lecture, three hours; discussion, one hour. Limited to public health and urban planning graduate students. Interdisciplinary course on built environment and health and breaking down silos. U.S. and other developed, as well as developing, countries are facing increasingly lethal and costly epidemics of acute and chronic disease due to climate change, lack of use and built environment decisions. While hazards presented by air and water pollution are well recognized for acute, infectious, and toxicological illnesses, there is increasing recognition of hazards posed by built environment decisions. May be repeated for credit. S/U or letter grading.

209. Practical and Clinical Applications of Environmental Health Sciences. (2) Lecture, two hours. Enforced requisites: courses C200A, C200B. Description of many leading environmental and occupational health problems, that environmental health practitioners face today, conducted as series of lectures, assignments, hands-on field exercises, and group projects, to help students develop skills necessary to integrate concepts across disciplines in field of environmental health. May satisfy some requirements needed to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.


211. Epidemiologic Methods in Violent Injury. (4) (Same as Epidemiology M225.) Lecture, four hours. Requisites: Epidemiology 200A, 200B, and 200C (or 100). Description and critical evaluation of epidemiologic methods in approaches to understanding incidence risk factors and prevention strategies of violence and violence-related injury. Letter grading.


214. Children's Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year each of chemistry and biology. Examination of how environmental exposures to chemical, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysiological perturbations in homeostasis at any stage during life. Letter grading.

220. Laboratory Literacy for Public Health Professionals. (4) (Same as Epidemiology M225.) Lecture, two hours; laboratory, four hours. Preparation: introduction to microbiology. Requisites: Epidemiology 200A, 200B, and 200C (or 100). Designed to enable public health professionals with no laboratory knowledge to understand vocabulary and technologies of public health laboratories. Sample laboratory reports provided for discussion of implications for public health program actions. S/U or letter grading.

225. Atmospheric Transport and Transformations of Airborne Pollutants. (4) Lecture, three hours; laboratory, four hours. Preparation: one year of calculus, one course each in physics, organic chemistry, and physical chemistry. Designed for science, engineering, and public health students. Role of regional or long-range transport, and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C125. S/U or letter grading.

225. Environmental Policy for Science and Engineering. (4) Lecture, four hours. Limited to senior undergraduate and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in environmental decision making and enforcing each, market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alternatives assessment. Concurrently scheduled with course C152D. S/U or letter grading.

232. Properties and Measurement of Airborne Particles. (4) Lecture, three hours; discussion, one hour; outside study, two hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C152D. S/U or letter grading.

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 toxicological processes and organ systems. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organ systems. Concurrently scheduled with course C140. Letter grading.

M242. Toxicodynamics. (2) (Same as Molecular Toxicology M242.) Lecture, one hour; discussion, one hour. Preparation: undergraduate biology and chemical courses. Requisite: course C240. Examination of recent literature on mechanisms of toxicity or toxicodynamics. Student presentation of papers selected by instructor on various aspects of toxic mechanisms, including mechanisms of action, how of cell death, metal toxicity, ion homeostasis, intracellular pH and calcium regulation, stress and adaptive pathways, DNA repair/mutagenesis, carcinogenesis, and teratogenesis. Discussion of various papers. S/U or letter grading.

M245. Laboratory in Toxicological Methods. (2) (Same as Molecular Toxicology M245 and Pharmacology M246C.) 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.

M246. Molecular Toxicology. (4) (Same as Molecular Toxicology M246.) Lecture, four hours. Enforced requisite: course C240. Fundamental aspects of toxicology required for deep understanding of toxicological processes, with research-oriented outlook. Dissemination of information about important molecular toxicological topics to make students think about them from research perspective. Students learn about cutting-edge research areas of molecular toxicology, how to most optimally extract important information from research papers, how to critique papers, how to formulate alternative hypotheses for data in papers, how to formulate ideas for future research, and how to express their ideas effectively in oral settings. Letter grading.

250D. Industrial Hygiene Practice. (2) Seminar, two hours. Requisites: courses C200A, C200B, Presentation of topics that are relevant to current practice of occupational health. Topics include discussions of regulatory framework, major topics of risk communication, new legislation, and emerging occupational health issues. S/U grading.


C252D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C152D. S/U or letter grading.

252E. Identification and Measurement of Gases and Vapors. (4) Lecture, three hours; discussion, one hour; outside study, two hours. Preparation: one year each of chemistry, physics, and calculus. Theoretical and practical aspects of chemical sampling and measurement of gases and vapors. Letter grading.
252F. Industrial Hygiene Measurements Laboratory. (3) Laboratory, three hours. Corequisites: courses C252D, 252E. Examination of industrial hygiene majors. Laboratory methods for sampling, measurement, and analysis of gases, vapors, and aerosols found in occupational, environmental, S/U or letter grading.

252G. Industrial and Environmental Hygiene Assessment. (4) Lecture, one hour; discussion, two hours; laboratory, two hours; outside study, four hours. Requisites: courses C200A, C200B, C252D, 252E, 252F. Environmental and industrial hygiene sampling strategies, assessment via walk-through surveys, lectures, group discussion, actual field measurements, laboratory calibrations, and analyses and reports, with emphasis on chemical, physical, and ergonomic health.

253. Physical Agents in Work Environment. (2 to 4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Physics, measurement methods, health effects, and control methods for radiation (ionizing and nonionizing), noise, and thermal stress in workplace environment. S/U or letter grading.

255. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisite: course C252D. Principles and applications of control technology to industrial environments, including general and local exhaust ventilation, 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.

C257. Work and Health. (4) Formerly numbered 270.) (Same as Community Health Sciences M276.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course. Basic knowledge of statistics. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

C258. Principles of Nanobiological Interactions and Nanotoxicology. (4) Lecture, four hours. Preparation: basic understanding of biology and chemistry at level required for admission to University of California at undergraduate level in engineering, physical, or natural sciences. Introduction to commonly used vocabulary in nanoscience required to appreciate biological interactions and potential toxicity of nanomaterials. Discussion of synthesis and physical-chemical characterization of engineered nanomaterials. Development of understanding of unique properties of engineered nanomaterials and how these properties contribute to biological effects. Properties of engineered nanomaterials to their potential for transport, reactivity, uptake, and toxicity in natural environments and in body. Concurrently scheduled with course C180. S/U or letter grading.

259A. Occupational Safety and Ergonomics. (4) Lecture, four hours. Overview of most frequent and severe occupational injuries and illnesses, their distribution, causes, analysis methods, and control approaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.


259G. Fire Prevention, Protection, and Facility Design. (3) Lecture, two hours. Requisite: course 259A. Introduction to fire science, engineering, and management principles to prevention, suppression, and control of fires and explosions and protection of life and property from fire or explosion damage and injury. Letter grading.


M270. Work and Health. (4) (Same as Community Health Sciences M276.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course. Basic knowledge of statistics. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Requisites: courses C200A, C200B. Chemistry 200A. Laboratory and field methods for laboratory and field applications to assess quantity of environmental pollutants in air, food, and water, and to assess degree of exposure to such factors as noise and radiation. Letter grading.

405. Operations and Management of Public Health Laboratories. (4) Lecture, four hours. Preparation: bachelor’s degree in science, engineering, or public health, at least one microbiology, environmental microbiology, infectious diseases, or health management of public health laboratory course. Designed for master’s and doctoral students. Principles of operations and management of public health laboratories and roles they play in public health infrastructure. Basic knowledge of microbiology assumed. Topics include assays and tests performed by public health laboratories, quality control, and leadership principles. Students perform needs assessment for local public health laboratory. S/U or letter grading.

410A. Instrumental Methods in Environmental Sciences. (4) Lecture, four hours; discussion, two hours; laboratory, two hours. Preparation: one year each of physics, chemistry, biology, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

410B. Instrumental Methods Laboratory in Environmental Health Sciences. (4) Lecture, one hour; discussion, one hour; laboratory, four hours; other, two hours. Preparation: one year each of physics, chemistry, and mathematics. Requisites: courses C200A, C200B. Laboratory techniques and instrumentation used in preparation and analysis of biological, environmental, and occupational samples. Letter grading.

M411. Environmental Health Sciences Seminar. (2 or 4) (Same as Environment M411.) Seminar, two hours. Required of graduate environmental health science students for one term each year. Current topics in environmental health sciences and environmental health and engineering. May be repeated for credit. S/U grading.

M412. Effective Technical Writing. (2) (Same as Environment M412.) Lecture, one hour. Essentials of grammar, punctuation, syntax, and form needed to produce well-written journal articles, research reports, memoranda, letters, and resumes. Emphasis on accuracy, clarity, conciseness, and avoidance of common errors in advanced technical writing, using critique, exercises, and examples. S/U grading.

454. Health Hazards of Industrial Processes. (4) Lecture, two hours; field trips, four hours. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

461. Water Quality and Health. (4) Lecture, three hours; discussion, one hour. Requisite: courses C200A, C200B. Introduction to water quality, with coverage of hydrology, water chemistry, and various chemical contaminants that may affect human health. Various treatment methods and health implications. S/U or letter grading.

470. Environmental Hygiene Practices. (2) Lecture, two hours. Requisites: courses C200A, C200B, 401. Epidemiology 100. Field principles and practices of environmental sanitation as applicable to sanitary and environmental facility design, operation, and inspection procedures for applicable environmental topics. S/U or letter grading.

M471. Improving Worker Health: Social Movements andLaboratory and Field. (4) (Same as Community Health Sciences CM470 and Urban Planning M470.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical
trends and social movements, interpretation of current policy debates, and development of innovative inter-
ventions. S/U or letter grading.

495. Teacher Preparation in Environmental Health Sciences. (2) Seminar, two hours. Preparation: 18
units of cognate courses in area of specialization. May not be applied toward master’s degree minimum
total course requirement. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be
arranged. Preparation: consent of UCLA graduate ad-
viser and graduate dean, and host campus instructor;
department chair, and graduate dean. Used to record
enrollment of UCLA students in courses taken under
cooperative arrangements with USC. No more than 8
units may be applied toward master’s degree mini-
mum total course requirement; may not be applied to-
toward minimum graduate course requirement. S/U
grading.

506. Directed Individual Study or Research. (2 to
8) Tutorial, to be arranged. Limited to graduate stu-
dents. Individual guided studies under direct faculty
supervision. Only 4 units may be applied toward
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) Tutori-
al, to be arranged. Limited to graduate students. May
not be applied toward any degree course require-
ments. May be repeated for credit. S/U grading.

508. Master's Thesis Research. (2 to 10) Tutorial,
four hours. 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 require-
ment. May be repeated for credit. S/U grading.

509. Doctoral Dissertation Research. (2 to 10) Tu-
torial, four hours. May not be applied toward any de-
gree course requirements. May be repeated for credit.
S/U grading.

ENVIRONMENTAL
SCIENCE AND
ENGINEERING
See Institute of the Environment and Sustain-
ability

EPIDEMIOLOGY

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Scope and Objectives

Epidemiology has been defined as the study of the
distribution and determinants of disease and
injury in human populations. Epidemiolo-
gists study variations of disease in relation to
such factors as age, sex, race, occupational and
social characteristics, place of residence, sus-
sceptibility, exposure to specific agents, or
other pertinent characteristics. Also of concern
are the temporal distribution of disease, exami-
nation of trends, cyclical patterns, and intervals
between exposure to causative factors and on-
set 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 preven-
tion of disease. What distinguishes epidemiol-
ogy 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 in-
cludes determination of the health needs of
populations, investigation and control of dis-
ease outbreaks, study of environmental and in-
dustrial hazards, evaluation of preventive or cu-
rative programs and treatments, and evaluation
of the effectiveness and efficiency of interven-
tion or control strategies. Many tools of epide-
miology 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 mainte-
nance organizations, colleges and universities,
and numerous research projects privately and
publicly sponsored.

The objectives of the Department of Epidemiol-
ogy fall into three broad categories — research,
teaching, and community service. Degrees of-
fered include the M.S. and Ph.D. in Epidemiol-
ogy and, through the School of Public Health,
the M.P.H. and Dr.P.H. with a specialization in
epidemiology (see Public Health Graduate
Programs).

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate
Division website, http://grad.ucla.edu/gasaa
/library/pgmrqintro.htm. In many cases, more
detailed guidelines may be outlined in an-
nouncements, 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

Upper Division Courses

100. Principles of Epidemiology (4) Lecture, two
hours; discussion, four hours. Preparation: one full bi-
ological sciences course. Not open for credit to stu-
dents with credit for course 200A, 200B, or 200C. In-
troduction to epidemiology, including factors govern-
ing health and disease in populations. Letter grading.

197. Individual Studies in Epidemiology. (2 to 4)
Tutorial, four hours. Limited to juniors/seniors. Individu-
all intensive study, with scheduled meetings to be ar-
ranged between faculty and student. As-
signed reading and tangible evidence of mastery of
subject matter required. May be repeated for credit.
Individual contract required. P/NP or letter grading.
genes, and characterizing their main effects and interactions with environmental factors. S/U or letter grading.

251. Epidemiology of Nonintentional Injuries. (4) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Biostatistics 100A. Pertinent epidemiology methods for study of unintentional trauma, injuries, and motor vehicle crashes, occupational exposures, falls, and other major external causes, that focus on research approaches, data sources, analytical techniques. Substantive findings on related subproblem areas presented for critical review. Letter grading.

M252. Epidemiologic Methods in Violent Injury. (4) (Formerly numbered 252.) (Same as Environmental Health Sciences M211.) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Description and critical evaluation of epidemiological methods in approaches to understanding incidence and prevent strategies of violence and violence-related injury. Letter grading.


M254. Nutritional Epidemiology I. (4) (Formerly numbered 254.) (Same as Community Health Sciences M251.) Lecture, two hours; discussion/laboratory exercise, one hour. Preparation: introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiological principles and methods, ranging from food-borne outbreak investigation to evidence-based regulatory assessment of health claims for food-related substances. Examines current social and global health issues and the role of nutrition and diet in health. Letter grading.

255. Keeping Children Safe: Causes and Prevention of Pediatric Injuries. (2) (Same as Community Health Sciences M255.) Lecture, two hours. Injuries have been leading killer of children in 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.

257. Advanced Nutritional Epidemiology. (2) Lecture, one hour; discussion, one hour. Preparation: introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiological principles and methods, ranging from food-borne outbreak investigation to evidence-based regulatory assessment of health claims for food-related substances. Examines current social and global health issues and the role of nutrition and diet in health. Letter grading.

262. Seminar in Nutritional and Occupational Cancer Epidemiology. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Discussion of recent epidemio-logical studies related to health and disease outcomes. S/U or letter grading.

263. Exposure Assessment in Occupational and Environmental Epidemiology. (2) Lecture, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Exposure assessment is often most challenging aspect of epidemiological studies, especially in areas where controversies have arisen such as for electromagnetic fields and childhood leukemia, and bladder cancer and trihalomethanes levels of drinking water. S/U or letter grading.

266. Global Health and Tropical Medicine. (2) Lecture, two hours. Introduction to tropical diseases and global health. How humanitarian health issues, maternal-child health, research in tropics, World Health Organizations, and political/medical constraints all are related with respect to health on worldwide scale. Letter grading.

267. Methodologic Issues in Reproductive Epidemiology. (2) Seminar, two hours. General discussion of methodologic issues important to epidemiologic studies of reproductive outcomes, including fertility, low birth weight, prematurity, birth defects, pregnancy loss, and perinatal mortality. Approaches to study design and exposure assessment and identification of potential sources of bias illustrated through review of recent studies. Emphasis on use of methodologies for a specific focus on occupational and environmental exposures and birth cohorts. S/U or letter grading.

268. Introduction to Pharmaecoepidemiology. (2) Lecture, two hours. Requisites: courses 200A, 200B, 200C. Pharmaecoepidemiology is application of epidemiologic knowledge, reasoning, and methods to study of effects and uses of drugs. Survey of contemporary roles of pharmaecoepidemiology in drug development and public health, with historical background of its evolution and projections of future prospects. S/U or letter grading.

270. Behavioral Epidemiology. (4) Lecture, four hours. Requisite: course 100 or 200A. Introduction to range of different methodologies used to collect data and conduct analyses on behaviors studied in epide-miology research. How to design studies and interpret data on behaviors that can be associated with disease outcomes, including methods to collect survey data (i.e., design of questionnaires, interviewing techniques, use of technology to collect data), and methods to collect and analyze qualitative data (e.g., ethnographic interviews, focus groups, systematic observations). Overview information on epidemiology of knowledge and behavioral factors influencing health, including sexual risk behaviors, substance use, physical activity, and healthcare utilization. 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 that provide support or refute claims made by practitioners of these procedures. Primary procedures include acupuncture, chiropractic, manipulation, massage, and herbal remedies. Letter grading.

M272. Social Epidemiology. (4) (Same as Community Health Sciences M272.) Lecture, two hours; discussion, one hour. Requisite: course 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other socioeconomic factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

273. Responsible Conduct of Research in Global Health. (2) Lecture, one hour; discussion, one hour. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

274. Topics in Chronobiology. (2) Lecture, two hours. Introduction to basic concepts and principles of circadian biology and how they relate to chronic diseases. Concepts and sleep, biomarkers of circadian system, and design, as well as methods to study these principles in modern epidemiology, with emphasis on biologic aspects and relevant disease mechanisms. S/U or letter grading.

280. Connecting Epidemiological, Medical, and Mathematical Aspects of Infectious Diseases. (4) Lecture, four hours. Requisites: courses 200A, 200B, 200C, 220. To deepen and further integrate knowledge on infectious diseases, focus on small number of them to enable in-depth study. Each to be presented and discussed from three viewpoints that facilitate greater understanding of biology, immunology and molecular basis, and epidemiologic and mathematical analysis. Letter grading.

291. Seminar: Special Topics in Epidemiology. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Seminar to review research on given topic in epidemiology. May be repeated for credit. S/U or letter grading.


293. International HIV/AIDS Seminar. (2) Seminar, two hours. Ongoing discussion of worldwide pandemic of HIV/AIDS, with emphasis on problems of surveil
294. Epidemiology and Policy of Occupational and Environmental Health Issues. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100) and/or 260. Introduction to demands that go beyond pure science, with focus on issues such as risk communication, potential influence (and ethics) of oversight panels and external review groups on presenting results and conclusions, and interest of government agencies. S/U or letter grading.


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

400. Field Studies in Epidemiology. (2 or 4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units may be applied toward 44-unit minimum total required for M.P.H. degree. Letter grading.


M403. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Requisites: Biostatistics 100A, 100B (100B may be taken concurrently). Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional and longitudinal population-based data sets to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

M406. Preparing for Smallpox or Other Bioterrorist Events. (2) (Same as Community Health Sciences M406.) Lecture, two hours. Major current 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) 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. Research Resources in Epidemiology. (2) Lecture, one hour; discussion, one hour. Instruction and practical experience in use of varied bibliographic 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; practical exercises courses 200A, 200B, and 200C (or 100). Biostatistics 100A. Overview of public health surveillance methodology, including (1) design, implementation, and evaluation of surveillance systems, (2) analysis and interpretation of surveillance data, and (3) application of surveillance methods to specific health-related outcomes. Letter grading.

413. Methods of Scientific Communication. (2) Lecture, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Principles of scientific writing and communication. Approaches to developing effective written, oral, and visual presentations of epidemiologic research findings. Communication issues arising in conduct of research, including informed consent process. S/U or letter grading.

414. Practical Epidemiologic Investigations. (2 or 4) Lecture, one or two hours; laboratory, one or two hours. Requisites: courses 200A, 200B, and 200C (or 100). 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 200A, 200B, and 200C (and/or 100), Biostatistics 100A. Practical use of epidemiology, microcomputers, and spreadsheet models for estimating morbidity and mortality, developing intervention or prevention strategies, and setting program priorities in Third World settings. Letter grading.


M418. Rapid Epidemiologic Surveys in Developing Countries. (4) (Same as Community Health Sciences M418.) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (and/or 100), Biostatistics 100A. Presentation 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 questionnaire, sample selection, process and analyze data, and prepare final report. Letter grading.

420. Field Trials in Developing Countries. (4) Lecture, four hours. Requisite: course 100 or 200A or 200B. Introduction to practical concepts and issues in conducting epidemiologic field research in developing countries, including formulating research questions, study site selection, ethical considerations, and logistics of data and specimen collection. S/U or letter grading.

495. Teacher Preparation in Epidemiology. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master's degree minimum total course requirement. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students at other schools 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 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward 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 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

ETHNOMUSICOCY
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Cheryl L. Keyes, Ph.D.
Steven J. Loza, Ph.D.
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James W. Porter, M.A.
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Lecturers
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Clayton Cameron, B.M.
Amy Cutin, Ph.D.
Jesus A. Guzman
Charles A. Harrison, M.M.
Tamar Hendelman, B.M.
Wolf Marshall, B.A.
Charles Owens, B.A.

Adjunct Professor
Ankica Petrovic, Ph.D.

Adjunct Associate Professors
Chi Li, B.A.
Roberto Miranda, M.M.
Bobby H. Rodriguez, D.M.A.
Tzvetanka T. Varimezova, B.A.
Michele A. Weir, M.A.
Ethnomusicology involves the study of all kinds of music from all over the world, using a variety of disciplinary perspectives. The Department of Ethnomusicology, the largest and first of its kind in a U.S. university, offers courses that cover the music of virtually every region of the world and of many ethnic groups in the U.S., as well as courses on jazz, popular music, and film music. Most courses combine an interest in music as an art form with questions about how musical art and practice relate to other aspects of culture, society, politics, and economics. Courses are also given on the philosophy and aesthetics of music and the study of music perception and cognition using experimental methods. In addition to academic courses, the department offers performance ensemble courses in jazz and several world and American music traditions. At the undergraduate level most of the performance courses are open to nonmajors, and many academic courses target nonmajors; prior knowledge of music is not expected or required. The Department of Ethnomusicology is aligned with the Departments of Music and Musicology and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

The undergraduate major in Ethnomusicology is offered with two concentrations: one in jazz studies and one in world music with emphasis in general world music, performance/composition, public ethnomusicology, and scholarly research. Admission requires an audition/interview. The major provides students with a wide-ranging liberal arts education in music. At its core, this includes (1) comprehensive knowledge of music cultures of the world, (2) understanding of the interrelationship of music, society, and culture, (3) grounding in the basics of Western music theory and musicianship, and (4) the experience of playing in one or several musical ensembles from various traditions around the world.

The concentration in jazz studies seeks to produce students who emerge as outstanding and well-rounded jazz musicians with a strong academic foundation, and to prepare students to enter professional careers in the music world, as well as graduate study in various aspects of music such as composition, arranging, film scoring, jazz performance, research, and teaching.

Beyond the core and emphasis requirements, students in the world music concentration may, through elective courses, prepare for a variety of career goals, including the study of ethnomusicology in graduate school, composing and performing music, working in the music industry, serving society in the nonprofit sector, or becoming a K through 12 music teacher.

At the graduate level, the department offers M.A. and Ph.D. degrees in Ethnomusicology, with a specialization in systematic musicology. Both degree programs train students for future university teaching careers, as well as careers in library science and archiving, the music industry, public service, and music technology. The department provides fellowships, teaching assistantships, and research assistantships for qualified students.

Undergraduate Study

The Ethnomusicology major is a designated capstone major. The capstone project is individualized to each student and requires a creative process either through music performance/composition, a research project, or an internship with a self-reflective journal detailing the process. Through that process, students are expected to demonstrate a broad knowledge base and competency in performance, writing, and/or composition and ability to apply knowledge and experience to the specific requirements of the capstone; conceive and successfully complete a project that is expressive of their specific interests and acquired expertise; and display, through written documentation or live presentation, the requisite communication and, in some cases, teamwork required by work in this field.

Ethnomusicology 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

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of Fall Quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M7A, M7B, M7C and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M7A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Jazz Studies Concentration

Required: Ethnomusicology M7A, M7B, M7C, with grades of C– or better, 20A and 20B, with grades of C or better, Music 20A, 20B, 20C, with grades of C or better, 12 units of instruction in jazz performance (course 71), and 12 units of ethnomusicology world music performance organizations and/or jazz performance ensembles (courses 91A through 91Z).

World Music Concentration

Required: Ethnomusicology M7A, M7B, M7C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, Music 20A, 20B, 20C, with grades of C or better, and 12 units of ethnomusicology world music performance organizations and/or private instruction in music (courses 91A through 91Z or 92).

The Major

Jazz Studies Concentration — Composition Emphasis

Required: Ethnomusicology M110A, M110B, M111, C122A, C122B, C122C, 125A, 125B, 125C, 127A, 127B, 127C, 129A, 129B, 129C, 163, 183, 6 units of course 161T and/or 177, one 4-unit upper division elective course selected from ethnomusicology, music, or music history, one additional course selected from Ethnomusicology C124, 164, or C165, and one capstone senior recital or project (course 186).

Jazz Studies Concentration — Performance Emphasis

Required: Ethnomusicology M110A, M110B, M111, C122A, C122B, C122C, 127A, 127B, 127C, 129A, 129B, 129C, 183, 12 units of course 161T and/or 177, 12 units of course 171, one 4-unit upper division elective course selected from ethnomusicology, music, or music history, and one capstone senior recital or project (course 186).

World Music Concentration

Required: Ethnomusicology 175 or 181, 183; 12 units from courses 161A through 161Z and/or 162; and a minimum of eight courses (32 to 36 units) from one of the four ethnomusicology emphases (required courses/units vary per emphasis): (1) general world music, (2) performance/composition, (3) public ethnomusicology, or (4) scholarly research. See the departmental counselor for the list of courses for each emphasis.

Emphases (32 to 36 units minimum): To select an emphasis, students who entered the program as freshmen must submit an application to the department in the Fall Quarter of their third year in the program. Students who entered as transfers must select their emphasis during Spring Quarter of their first year of training at UCLA. The application must include (1) an up-to-date transcript, (2) a concise statement by the students explaining why the emphasis has been selected and how it will prepare them for their career goals, and (3) the approval of a faculty member who is a specialist in the emphasis. Students who decide on the general world music emphasis do not need to submit an application.

General World Music (for students interested in general training in world music): In addition to the lower and upper division core requirements, a minimum of eight 4-unit courses is required. Four 4-unit courses must be selected from one of the following groupings — (1) Americas and Europe, (2) Africa and Asia, (3) popular music and jazz, or (4) aesthetics, politics, psychology,
Graduate Degrees

The Department of Ethnomusicology offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Ethnomusicology.

Ethnomusicology

Lower Division Courses

5. Music Around World. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Overview of world’s musical traditions by selecting one or two case studies from each of nine musical world regions: Pacific, East Asia, Southeast Asia, South Asia, Middle East, Africa, Europe, Latin America, and U.S. and Canada. P/NP or letter grading.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gssaa/ library/pgmqr intro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

25. Global Pop. (5) Lecture, four hours; discussion, one hour. Development of world music or world beat, including its meaning and importance to contemporary culture as well as its history and impact. P/NP or letter grading.

30. Music and Media. (5) Lecture, four hours; discussion, one hour. Exploration of ways music is mediated to people by industry, technologies, and corporations. Survey of leading theorists of media and exploration of case studies. P/NP or letter grading.

35. Blues, Society, and American Culture. (5) Lecture, four hours; discussion, one hour. Sociocultural history and survey of blues music tradition from its roots in West Africa to its emergence in African American oral culture, with emphasis on philosophical underpinnings and social and political impact of blues and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

40. Music and Religion. (5) Lecture, four hours; discussion, one hour. Survey of nature, role, and power of music in religious rituals around world, covering music and ritual of Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as religious traditions of Native Americans and syncretic religious practices in the Americas such as African American, Brazilian, and Haitian vodou. Letter grading.

45. Music of Bollywood and Beyond. (5) Lecture, four hours; discussion, one hour. Overview of cinema as a means of exploring popular music in India, Asia. P/NP or letter grading.

50A-50B. Jazz in American Culture. (5-5) Lecture, four hours; discussion, one hour. Course 50A is prerequisite to 50B. Survey of development of jazz in American culture. Discussion of different composition-performance techniques and approaches that distinguish different sub-styles of jazz from one another, as well as key historical figures that shaped development of jazz from its early years through modern jazz. Important historical social issues (segregation, Depression, World War II, Civil Rights Movement) that intersect with history of U.S. and jazz music. P/NP or letter grading. 50A. Late 19th Century through 1940s; 50B, 1940s to Present.

71. Instruction in Jazz Performance. (2) Studio, six hours. Limited to Ethnomusicology jazz studies majors. Nature of jazz repertoire, concepts, and techniques developed through study of specific instruments and voice. Students meet weekly with instructor to demonstrate their performance skills and receive assessment of their progress in learning material. May be repeated for maximum of 12 units. Letter grading.

M87. Special Courses in Music. (5) (Same as Music M87 and Music History M87.) Lecture, four hours; discussion, four hours. Limited to graduate students. Special topics in ethnomusicology, music, and music history majors. Study and analysis of current and/or special topics in ethnomusicology, music, and music history taught by resident and visiting faculty members. May be repeatable for credit. Letter grading.

Upper Division Courses

C100. Audiovisual Archiving in 21st Century. (4) Seminar; three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and archiving issues and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C200. P/NP or letter grading.

105. Music Business. (4) Lecture; four hours; outside study, eight hours. Designed for junior/senior Ethnomusicology majors in public ethnomusicology emphasis. 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. P/NP or letter grading.


106B. Contemporary North American Indian Music. (4) Lecture, three hours; discussion, one hour. Contemporary Native North American musical expression, including popular styles (folk, country, rock, intertribal Indian musical genres (powwow), syncretic religious music, and traditional/historic Pan-Indian music. P/NP or letter grading.

107. South American Indian Music. (4) Lecture; four hours; outside study, eight hours. Native South America traditions 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 nation-states and popular music styles. Letter grading.


M109. Women in Jazz. (4) Same as Afro-American Studies M109 and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociohistorical study of women in Jazz and allied musical traditions from 1880s to present. Study of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

M110A-M110B. African American Musical Heritage. (5-5) (Same as Afro-American Studies M110A-M110B.) Lecture, four hours; discussion, one hour. M110A. Sociocultural history and survey of African American music covering Africa and its impact on America; music of 17th through 19th centuries, its impact on representation of blacks in film, television, and theater; religious music, including hymns, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Angolans. M110B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm & blues, soul, funk, disco, hip-hop, and symbiotic relationship between these styles and effects of cultural politics on black popular music productions.

M111. Ellingtonia. (4) (Same as Afro-American Studies M145.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Taught as “Ellingtonia,” in lieu of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Count Basie, and Mercer Ellington. P/NP or letter grading.

CM112A-112B. 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 urbanization in L.A. to determine their impact on development of African American music in California. Concurrently scheduled with course CM122. P/NP or letter grading.

113. Music of Brazil. (4) Lecture; three hours. History of Brazilian music with emphasis on Brazilian popular music and its role to Portuguese antecedents. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Same as Chicana and Chicano Studies M115.) Lecture, four hours. Confronting aesthetics from classic to modern, philosophy of music and its role in society.

116. American Popular Music. (4) Lecture, four hours; discussion, one hour. Survey of popular music and rock music development in U.S. P/NP or letter grading.

117. Cultural History of Rap. (5) (Same as Afro-American Studies M117.) Lecture, four hours; discussion, one hour. Historical and analytical examination of rap music and its role to American society and beyond. P/NP or letter grading.

M119. Cultural History of Rap. (5) (Same as Afro-American Studies M119.) Lecture, four hours; discussion, one hour. Historical and analytical examination of rap music and hip-hop culture, with emphasis on its historical background and its development in U.S. P/NP or letter grading.

118. Development of Rock. (5) Lecture, four hours. Examination of historical and stylistic development of rock from 1950s to present, with attention to its socio-cultural and political impact on America society and beyond. P/NP or letter grading.

119. Cultural History of Rap. (5) (Same as Afro-American Studies M119.) Lecture, four hours; discussion, one hour. Historical and analytical examination of rap music and hip-hop culture, with emphasis on its historical background and its development in U.S. P/NP 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 U.S. P/NP or letter grading.

121. Cross-Cultural Perspectives in Jazz. (4) Lecture, four hours. Exploration of assimilation and retention of jazz from U.S. in various countries, with particular emphasis on cultural and social features that form basis for new jazz-ethnic music blends. P/NP or letter grading.

C122A-C122B-C122C. Jazz Styles and Analysis. (4-4-4) Lecture; four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Music History majors. Focus on jazz styles and repertoire intended for students with music backgrounds. Concurrently scheduled with courses C222A-C222B-C222C. Letter grading. C122A. Early Jazz to Swing Era. C122B. Bebop to Avant-garde; C122C. Jazz since Sixties.

123. Music of Bebop. (4) Lecture; three hours. Study of jazz bebop tradition, including analysis of compose, style and form, songs and improvisation and, developments from 1940 to present. P/NP or letter grading.

C124. Electric Music of Miles Davis. (4) Lecture; four hours; outside study, eight hours. Enforced requisite: course 11C. Careful examination of artistic body of Miles Davis (1926-1991), his role in development of musical style referred to today as Latin Jazz P/NP or letter grading.

125A-125B-125C. Jazz Composition and Arranging. (2-2-2) Lecture; two hours; outside study, four hours. Examination of various aspects of jazz composition and arranging. Differences between written and notated composition, as well as between composition and arranging, and introduction to basic arranging concepts. Letter grading. 125A. Early Jazz to Swing Era. 125B. Bebop to Avant-garde. 125C. Jazz since Sixties.

126A. Introduction to Jazz Arranging and Orchestration. (2) Seminar, two hours. Prerequisite: course 129C. Study and practice of skills used in arranging and orchestrating music in jazz idiom. Students create and orchestrate their own arrangements. Study of specific instruments and their unique use and application in jazz (jazz notation and terminology, transposition, woodwind doubling, etc.), Writing for smaller ensembles, culminating with arrangements to be read by one UCLA Jazz Combo. Letter grading.

126B. Jazz Arranging and Orchestration. (2) Seminar, two hours. Prerequisite: courses 126A, 126B, 129C. Continuation of course 126A with focus on full sectional writing and in-depth score analysis. Culminates with arrangements to be read by UCLA Jazz Orchestra I. Letter grading.

126C. Advanced Jazz Arranging and Orchestration. (2) Seminar, two hours. Prerequisite: courses 126A, 126B, 129C. Continuation of course 126A with focus on full sectional writing and in-depth score analysis. Culminates with arrangements to be read by UCLA Jazz Orchestra I. Letter grading.

127A-127B-127C. Jazz Keyboard Harmony I, II, III. (2-2-2) Laboratory, two hours; outside study, four hours. Prerequisites: courses 11A, 11B, 11C. Course 127A is enforced requisite to 127B, which is enforced requisite to 127C. Not open for credit to students with credit for former course 127. Study of jazz harmony through use of piano keyboard. Letter grading.

129A-129B-129C. Jazz Theory and Improvisation. (2-2-2) Lecture, four hours; outside study, eight hours. Elements of jazz theory and improvisation. Letter grading. 129A. Basic jazz theory and improvisations, as well as melodic, rhythmic, and harmonic concepts, and how to apply those elements to personal efforts in improvisations. 129B. Requisite: course 129A with grade of B or better. More advanced harmonic construction. 129C. Requisite: course 129B with grade of C or better. Advanced-level jazz harmonic construction.

M130. Culture of Jazz Aesthetics. (4) (Same as Anthropology M142R and World Arts and Cultures M136.) Lecture; three hours. Prerequisite: course 20A or 20B or 20C or Anthropology 9 or 33 or World Arts and Cultures 20. Aesthetics of jazz from point of view of musicians who shaped jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and their improvisations combined with those interested in jazz as cultural tradition. P/NP or letter grading.

M131. Development of Latin Jazz. (4) (Same as Music M131.) Lecture; four hours; discussion, one hour. Survey of historical development of musical style referred to today as Latin Jazz. P/NP or letter grading.

133. European Musics: Politics, Identities, Nationalisms. (5) Lecture; four hours; outside study, 12 hours. Enrolled to Ethnomusicology, Music History, and European Studies majors. European folk, popular, and classical music as practice that shapes ideas about national, ethnic, class, and religious identity and as tool of political domination and resistance. Letter grading.
136A. Music of Africa. (5) Lecture; four hours; discussion, one hour; outside study, 10 hours. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found in Africa and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course CM288. Letter grading.

146. Folk Music of South Asia. (4) Lecture; three hours; laboratory, one hour. Illustrated survey of some regional genres, styles, and musical instruments found in India and Pakistan, with special reference to religious, social, economic, and cultural context of their occurrence. P/NP or letter grading.

147. Survey of Classical Music in India. (4) Lecture; four hours. Examination of melodic, metric, and formal structures of Indian classical music in context of religious, sociocultural, and historical background of country. P/NP or letter grading.

C150. Music and Politics in East Asia. (4) Lecture; four hours. Limited to Ethnomusicology, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. Political imperatives have long had direct and often explicit impact on music sound and context in East Asia. Examination of 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-156B. Music in China. (4-4) Letter grading. C156A. 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. Examination of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C256A. 156B. Lecture, three hours; laboratory, two hours. Requisite: course C156A. Introduction to various notational systems. Analysis of representative styles.


158A-158B. Studies in Chinese Instrumental Music. (4-4) Lecture, three hours; laboratory, one hour. P/NP or letter grading. 158A. Study of literature, major sources, paleography, theory, and philosophy of CH/n, including transcription and analysis. 158B. Study of literature, major sources, paleography, theory, and philosophy of P+I Pa, 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 undergraduate Ethnomusicology, Music, Music History, and World Arts and Cultures majors. Survey of musics from China’s border regions and neighboring countries: technical musical characteristics and important contemporary contexts. Traditional and modern styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.

160. Survey of Music in Japan. (4) Lecture; three hours. Survey of main genres of Japanese traditional music, including gagaku, Buddhist chant, Biwa music, Koto music, Shamisen music, and music used in various theatrical forms. P/NP or letter grading.

161A-161Z. Advanced World Music Performance Organizations. (2 each) Activity; three hours; outside practice, three hours. Limited to Ethnomusicology majors. Advanced private or semiprivate music instruction with distinguished community-based musician, that must be arranged by students and approved by course instructor. May be repeated for credit without limitation. Letter grading.

163. Pathways to Composition. (4) Lecture; four hours. Enforced requisite: course 11C. Fresh new approaches to composing for beginning and experienced composers, while looking at pieces from jazz, classical, and film music repertoire for inspiration and study. Group composition exercises, with improvisation as component composition tool. Exploration of compositions in myriad of styles to see how different composers develop melodic phrases into musical statements. Observation of how composers create sense of dramatic flow, with composition of student pieces based on these concepts. Study of various composers’ use of rhythmical phrases and call and response, and element of surprise to keep student compositions fresh and dynamic. Concurrently scheduled with course CM262. Letter grading.

164. World Music Composition. (4) Lecture; three hours; laboratory; three hours; outside study, six hours. Requisites: courses 11A, 11B, 11C. Limited to Ethnomusicology majors. Examination in composition using variety of Western and non-Western musical systems. Final project required. Letter grading.

C165. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 11C. Evaluation of important musical concepts and development of student compositions. Development of greater compositional technique and understanding. Study of various composers’ techniques, European classical, and other musical genres have successfully approached use of extended compositional forms. Examination of way in which world music traditions have interfaced with jazz and other types of music to create new musical languages. Use of concepts, structural paradigms, and inspiration from literature, visual arts, and other sources to develop student compositions. Concurrently scheduled with course C270. Letter grading.

C166. Music, Science, and Technology. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Designated 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 C266. Letter grading.

170. Acoustics. (4) Lecture, four hours; discussion, one hour. Interrelationship of acoustical and musical phenomena. Tuning systems, consonance and dissonance, development of instruments and their history, perception and analysis. P/NP or letter grading.

171. Instruction in Advanced Jazz Performance. (2) Laboratory, one hour. Preparation: advanced performance ability as demonstrated by audition. Study of compositions of jazz and techniques for electric instruments and voice. May be repeated for credit for maximum of 12 units. Letter grading.

172A. Cognitive Psychology of Music. (4) Lecture, four hours; discussion, one hour. Designed for nonmajors. Introduction to psychology of music; historical background and broad field of study, including use of music as stimulus, tests and measurements, and related modes of musical behavior. P/NP or letter grading.


175. Sociology of Music. (4) Lecture; four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. Introduction to sociology of music, its principles and basic concepts, and its critical significance for sociomusicological inquiry, including study of popular music, ethnomusicology, and cultural politics of music. P/NP or letter grading.

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 Combo. (2) Activity; two hours; laboratory, four hours. Small group performance of various styles in ensembles of three to 10 musicians. Minimum of 12 units required for jazz studies concentration students. May be repeated for maximum of 18 units. Letter grading.


181. Anthropology of Music. (4) Lecture; four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. Cross-cultural examination of music in context of sexual behavior and how musical patterns reflect patterns exhibited in other cultural systems, including economic, political, religious, and social structure. P/NP or letter grading.

C182. Music Industry. (4) (Same as Music CM182 and Music History CM186.) Lecture; four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History majors. Preparation of file in music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of recording to MTV and popular music today. Concurrently scheduled with course CM288. Letter grading.
Graduate Courses

C200. Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C100. S/U or letter grading.

201. History of Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Basic literature and schools of thought in field of ethnomusicology from late 19th century to 1980s. Letter grading.

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 1980s to present. Letter grading.


204. Aesthetic and Philosophical Foundations in Systematic Musicology. (4) Seminar, three hours; outside study, nine hours. Limited to Ethnomusicology majors. In-depth analysis of jazz styles and repertoire of Miles Davis’ electric music (1967 to 1991). Influences and impetus that fueled his daring move from acoustic jazz to electric music. Examination of Davis’ complex and challenging relationship with music industry as his art moved through periods of multidimensional growth and evolutionary development. Much detail to his use of contemporary jazz, funk, rhythm and blues, rock, soul and west African, Brazilian, European, Cuban, Indian, flamenco, and ambient music. Concurrently scheduled with course C124. Letter grading.


230. European Musics: Political Identities, Nation- als. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. European classical, popular, and traditional musics, with particular attention to way in which music mirrors, negotiates, and contests ideas about national and other forms of identity, ideas developed in other domains of discourse and practice such as philosophy, history, literature, art, and folklore. Examination of how occultists, nationalists, and politicians have used music to affect political processes involved in contesting and resolving tensions created between and among these identity formations. Historical period coverage primarily from 19th and 20th centuries, with examples from all over European continent. Letter grading.

C233B. Music of Africa. (4) Lecture, four hours; outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C126. Letter grading.


241. Music of Iran and Other Non-Arabic-Speaking Communities. (4) Lecture, three hours. Requisite: 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. S/U or letter grading.

248. Classical Music of India. (4) Lecture, three hours; outside study, nine hours. Requisite: course 146 or 147. Study of history, theory, and practice of north and south Indian classical music. Emphasis on music history and theory and analysis of present-day forms, styles, techniques, and musical instruments. Concurrent participation in Indian performance group (course 91F) required. S/U or letter grading.

250. Music and Politics in East Asia. (4) Lecture, four hours. Designed for graduate students. Political imperatives have long had direct and often explicit impact on music sound and context in East Asia. Examination of the role of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C171. Letter grading.

251. Music of Indonesia. (4) Lecture, three hours; outside study, nine hours. Requisite: course 20C. Emphasis on music and related performing arts of Java, Bali, and other Indonesian islands. Concurrent participation in one Indonesian performance group (course 91B or 91H) required. S/U or letter grading.


256A. Music in China. (4) Lecture, four hours. Requisite: course 20C. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced musical traditions as reinterpreted in China, including musical analysis of different genres; examination of contexts in which they exist. Investigation of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C156A. Letter grading.

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 music from China’s border regions and neighboring countries: technology of musical production, history, and development of musical instruments and music in art music, popular music, and music in music published in 18th century and continuing through development of audio recordings to rock and popular music today. Concurrently scheduled with course C188. Letter grading.

262. Musical Ethnography. (4) Seminar, three hours; outside study, nine hours. Examination of selected book-length ethnographies, most published in last 10 years, as both literary genre and research procedure. S/U or letter grading.

263. Perspectives in Popular Music Research. (4) Seminar, three hours. Investigation of theoretical paradigms governing the study of popular music, with emphasis on world music genres, local/global markets, mass mediation, appropriation and aesthetics of style, ethnographic methods, and impact of popular music studies on ethnomusicology. Letter grading.

264. Urbanism and Music. (4) Seminar, three hours; outside study, nine hours. Theoretical and methodological issues in study of city as cultural entity that affects and is affected by music making. S/U or letter grading.

265. Religion and Music. (4) Seminar, three hours; outside study, nine hours. Cross-cultural examination of role of musical expression as spiritual medium and as artistic expression in world’s religions. S/U or letter grading.

266. Charles Seeger’s Life and Thought. (4) Seminar, three hours; outside study, nine hours. Charles Seeger’s life and works are richly documented, offering a wealth of material on his 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 20th century. S/U or letter grading.

267. Music and Ecstasy. (4) Seminar, three hours; outside study, nine hours. Relationship between musical consciousness and different world cultures and role music plays in ecstatic experiences. Phenomena include trance, spirit possession, shamanism, religious ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

268. Modernity and Musical Experience. (4) Seminar, three hours; outside study, 10 hours. Limited to graduate students. Examines possibilities of a subject-centered musical ethnohistory to account for fragmented musical experience in modern world. Consideration of local and world musics in relation to modernity, postmodernity, globalization, notions of self and subject, power, and media images. Letter grading.

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 samples and music synthesis, as well as scientific principles underlying such technologies. Concurrently scheduled with course C169. Letter grading.

270. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Evaluation of important musical concepts and approaches to enable students to develop greater compositional technique and understanding. Ways composers of jazz, European classical, and other musical genres have successfully approached use of extended compositional forms. Examination of way in which world music traditions have influenced work of contemporary Western composers. May be repeated for credit. S/U or letter grading.


275. Seminar: Aesthetics of Music. (6) Seminar, three hours. Specific topics in Western and non-Western aesthetic thought, including value, meaning (see also Historical Development of Theoretical Perspectives and Critical Theory, and interpretation. May be repeated once for credit. S/U or letter grading.

276. Psychology of Film Music. (4) Lecture, four hours; outside study, eight hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on music for 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 C176. Letter graded.

279. Seminar: Systematic Musicology. (4) Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, acoustics, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit. S/U or letter grading.

280. Teaching World Music and Music Appreciation. (4) Seminar, three hours. Preparation: two ethnomusicology courses or concurrent enrollment in course 20A, 20B, or 20C. Designed for ethnomusicology and musicology graduate students. Practical overview of current pedagogical philosophies and techniques used in teaching introductory music survey courses, specifically music appreciation and general world music. Letter grading.


285. Seminar: Comparative Music Theory. (6) Seminar, three hours. Comparative study of codified music theories of select cultures — Western and non-Western — considered in themselves and as expressions of their societies. Theory considered as science of music; its place between cultural values and artistic practice in different civilizations. S/U or letter grading.

286. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical and policy-oriented in approach. Concurrently scheduled with course C184. Letter grading.


293. Seminar: Music in the South Pacific. (4) Seminar, three hours. S U or letter grading.

294. Seminar: Music in the Western Hemisphere. (4) Seminar, three hours. S U or letter grading.


296. Seminar: Music in the Western World. (4) Seminar, three hours. S U or letter grading.


300. Seminar: Music of Europe. (4) Seminar, three hours. S U or letter grading.
289. Research Design and Grant Writing in Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Design of dissertation research proposal, locating and applying for dissertation fieldwork grants, organizing and presenting advanced academic proposals with sophisticated methods and professional writing skills. S/U or letter grading.


291. Ethnomusicology Colloquium Series. (1) Research group meeting, one hour. Limited to graduate ethnomusicology students. Introduction to new trends and issues in discipline of ethnomusicology in effort to strengthen and stimulate intellectual community within department. Topics vary from term to term and consist of presentations by guest lecturers, faculty members, and students. May be repeated for credit. S/U grading.

292A-292Z. Seminars: Special Topics in Ethnomusicology. (4) Seminar, four hours. Designed for graduate students. Utilization of special interests and expertise of regular and visiting faculty; topics of current interest presently offered in ethnomusicology program. S/U or letter grading.

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

495A. Teaching Apprentice Practicum. (2) Eight weekly two-hour seminar sessions plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Ethnomusicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching ethnomusicology and systematic musicology at college level. May not be applied toward degree requirements. S/U grading.

495B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limited to graduate ethnomusicology students. Training in presentation, spreadsheet, web design, and digitization software, and its application in classroom and in preparation of electronic teaching portfolio. S/U grading.

596. Directed Individual Studies. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward M.A. minimum course requirements. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. Guidance of M.A. Thesis. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.


European Studies
See International and Area Studies

Family Medicine
David Geffen School of Medicine

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Michelle Anne Bholat, M.D., M.P.H., Vice Chair

Clinical Affairs

Directors
Daniel Castro, M.D., Harbor-UCLA
Gregory Dalquist, M.D., Pomona Valley
Pamela Davis, M.D., Northridge Hospital
Thomas Dunlop, M.D., Ventura County
James H. Hara, M.D., Kaiser-Sunset
Asma Jafri, M.D., Riverside County
Theodore O’Connell, M.D., Kaiser-Woodland Hills
Denise K.C. Sur, M.D., UCLA

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 healthcare system, and to offer advanced clinical training for those students interested in pursuing careers in family medicine. Further, the basic curriculum includes an overview of healthcare issues facing underserved and immigrant populations in urban America, as well as an introduction to health services research in family medicine.

Family medicine faculty members are active both in leadership roles in the teaching curricula and in the Primary Care College. All first-year students are assigned to work with a family medicine preceptor once a month on a longitudinal basis for the entire year as part of the participating 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, see http://fm.mednet.ucla.edu.

Family Medicine
Upper Division Course

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

Film, Television, and Digital Media

School of Theater, Film, and Television

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Barbara Boyle, J.D.
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Thomas F. Denove, B.A.
Gyula Gazdag, M.F.A.
Marina Goldovskaya, Ph.D.
A.P. Gonzalez, M.A.
Deborah Nadoolman Landis, Ph.D. (David C. Copley Professor for Study of Costume Design)
Stephen D. Mamber, Ph.D.
William McDonald, M.F.A.
Kathleen A. McHugh, Ph.D.
Celia L. Mercer, M.F.A.
Chon A. Nonge, Ph.D.
Nancy Richardson, M.F.A.
Teri E. Schwartz, Ph.D., Dean
Charles E. Sheetz, B.A.
Becky J. Smith, M.A.
Richard Walter, M.A.

Studio Professor
Peter Guber, LL.M., in Residence

Professors Emeriti
William B. Adams, M.A.
Jerzy Antczak, M.A.
Nicholas K. Browne, Ed.D.
William Froug, B.J.
Richard C. Hawkins, M.A.
Lewis R. Hunter, M.A.
Walter K. Kingson, Ed.D.
Barbara Marks
Mark McCarty, M.A.
Dan F. McLaughlin, B.A.
David H. Menger, M.A.
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Vivian Sobchack, Ph.D.
Howard Suber, Ph.D.
Peter Wollen, B.A.
John W. Young, M.A.

Associate Professors
Denise R. Mann, Ph.D.
C. Fabian Wagmister, M.F.A.

Assistant Professors
Allison N. Field, Ph.D.
Steven Ricci, M.A., Ph.D.

Lecturer S.O.E.
Harold L. Ackerman, M.A.

Lecturers
Beth Babyak
Bill J. Barminski
Vincent M. Brook
Scott M. Brownlee
Jeffrey A. Burke
Paul Castro
Richard Edwards, M.F.A.
Rhonda Hammer, Ph.D.
Benjamin U. Harris, M.F.A.
Felicia D. Henderson, M.A.
Rory M. Kelly, M.F.A.

Film, Television, and Digital Media / 343
related to the senior thesis concentration area. All courses, including capstone senior thesis projects, involve work shopping individual projects. Group participation in the creation and production of each student’s project is core to the curriculum. Specific student learning objectives vary based on concentration area.

**Film and Television B.A.**

**Capstone Major**

The undergraduate Film and Television major encourages development of a personal vision that incorporates creative, practical, intellectual, and aesthetic values. Within the context of a liberal arts education, the program provides a broad background in the field and in the diversity of film and television practice, including courses in history and theory, critical thinking, animation, screenwriting, and the fundamentals of film, video, and television production.

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, see http://www.tft.ucla.edu/programs/ftvdm.

Due to curriculum changes, students in the Theater major are no longer allowed to change their major to Film and Television at the end of their sophomore year.

**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 100A, 115, 133, 150, 154, 155, 163, 185; one cinema and media studies elective (not previously taken as preparation for the major) from 106B, 106C, 107, 108, 112, 113, 114, M117; one course from C132 or 134; one capstone departmentally sponsored internship (course 195) and one capstone senior thesis project (course 199); and a senior concentration (at least 20 units) from one of the following areas: (1) film production — courses 175A, 175B, 178, (2) television and video production/narrative — courses 165, 176A, 176B, (3) television and video production/documentary — courses 176A, 176B, 186A, (4) screenwriting — courses 135A, 135B, 135C, (5) animation — courses 181A, 181B, 181C, (5) cinema and media studies — courses 106A, 106B, 106C, 107, 108, 110C, 112, 113, 114, M117.

Students should be mindful of the exigencies inherent in filmmaking and be prepared to meet the additional demands of time and costs.

Students are required to perform assignments on each other’s projects. In addition, the department reserves the right to hold for its own purposes examples of any work done in classes and to retain for distribution such examples as may be selected.

Consult the Schedule of Classes for courses limited to majors only.

**Film, Television, and Digital Media Minor**

The Film, Television, and Digital Media minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of film, television, and digital media as art forms with social, political, cultural, and economic significance. The minor consists of a selection of upper division courses that introduce students to the practice and critical study of film, television, and digital media.

To enter the minor students must have declared a major in a department other than the Film, Television, and Digital Media Department, be in good academic standing (minimum 3.0 grade-point average), have completed at least three film and television courses with grades of C or better, and file an application and essay at the Student Services Office, 103 East Melnitz Building. (310) 206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student's school or college.

**Required Upper Division Courses (28 to 32 units):**


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. All units applied toward the minor must be taken in residence at UCLA. Film and television courses taken at other institutions cannot be applied toward the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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
Film and Television
Lower Division Courses

M50. Introduction to Visual Culture. (5) (Same as English M50.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including advertising, still and moving images, and narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.

72. Production Practice in Film, Television, and Digital Media. (2 to 4) Lecture, three hours; laboratory, three hours. Exploration of research, analysis, and concentration of dramatic narrative and laboratory experience in one or more various aspects of contemporary production and postproduction practices for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

Upper Division Courses

100A. Junior Symposium. (1 or 2) (Formerly numbered 100B.) Laboratory, three hours. Limited to Film and Television majors. Structured forum in which undergraduate juniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. May be repeated for maximum of 4 units. Letter grading.

106A. History of American Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of American motion picture both as developing art form and as medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

106B. History of European Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture both as developing art form and as medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

106C. History of African, Asian, and Latin American Film. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of motion picture both as developing art form and as medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

106G. History of African, Asian, and Latin American Film. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of motion picture both as developing art form and as 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 motion pictures. P/NP or letter grading.

108. History of Documentary Film. (6) Lecture/screenings, eight hours; discussion, one hour. Philosophy of documentary approach in motion pictures. Development of critical standards and examination of techniques of teaching and persuasion used in selected documentary, educational, and propaganda films. Letter grading.

110A. American Television History. (5) Lecture/screenings, five hours; discussion, one hour. Critical survey of American television history from its inception to present. Examination of interrelationships between program forms, institutional paradigms, social trends, and culture. Starting with television's hybrid origins in radio, theater, and film, contextualization, viewing, and discussion of key television shows, as well as Hollywood films that comment on radio and television. Consideration of television programs and series in terms of sociocultural issues (consumerism, lifestyles, trends, race, national identity) and industrial practice (programming, policy, regulation, business). Letter grading.

110C. World Media Systems. (4) Lecture/viewing, four hours; discussion, one hour. Critical, historical, aesthetic, and social significance — of Asian, African, Latin American, and Mexican and cinema that may include authorship, stardom, femaleness, and star. Focus on women directors working in various national cinemas. Letter grading.

110D. Women and Film. (6) (Same as Gender Studies M111.) Lecture, eight hours; discussion, one hour. Historical, aesthetic, and critical approaches to women and cinema that may include authorship, stardom, femaleness, and star. Focus on women directors working in various national cinemas. Letter grading.

111. Women and Film. (6) (Same as Gender Studies M111.) Lecture, eight hours; discussion, one hour. Historical, aesthetic, and critical approaches to women and cinema that may include authorship, stardom, femaleness, and star. Focus on women directors working in various national cinemas. Letter grading.

111F. Film and Social Change. (6) Lecture/screenings, eight hours, discussion, one hour. Development of documentary and dramatic films in relation to and as force in social development. Letter grading.

113. Film Authors: Hitchcock and His Influence. (6) Lecture/screenings, eight hours; discussion, one hour. Study of films of Alfred Hitchcock and influence he has had on other filmmakers. Lectures and screenings of Hitchcock films in first seven weeks; with coverage of films that are closely patterned after Hitchcock's in last three weeks. P/NP or letter grading.

114. Film Genres. (5) Lecture/screenings, five hours; discussion, one hour. Study of specific film genre (e.g., Western, gangster cycle, musical, silent epic, comedy, social drama). May be repeated once for credit with consent of department and topic change. P/NP or letter grading.

115. Stylistic Studies for Moving Image: Theory and Practice. (3) Lecture, four hours; discussion, one hour. Drawing heavily on wide array of historical examples, examination of many expressive strategies for this medium, along with its many formats. Business, craft and business of writing animation for television. Lecture, four hours; discussion, one hour. Practical application of film editing technique, and Practice. Letter grading.

116. Film Criticism. (4) Lecture, four hours; laboratory, two hours. Enforced requisite: course taken by artists and professionals in making of motion picture and television. Examination of film as both art and industry, with emphasis on sound and performance, editing, financing, advertising, and distribution. Exploration of American and world cinema from filmmaker's perspective. Honing of analytical skills and development of a critical vocabulary for study of filmmaking as technical, artistic, and cultural phenomenon. P/NP or letter grading.

122C. Design and Experimental Digital Film Production. (4) (Formerly numbered 119B.) Lecture, three hours; discussion, one hour. Students conceive, write, polish, shoot, and edit short digital experimental movies and crew on classmate projects. Experimentation with image, sound, and montage; examination of scenes from feature films and experimental short subjects. By end of term, students have one- to three-minute digital films with titles and sound track. P/NP or letter grading.

122D. Film Editing: Overview of History, Technique, and Practice. (4) (Formerly numbered 188D.) Lecture, three hours. Practical application of film editing techniques, how they have evolved, and continued evolution. Four full weeks of editing and examination as well as current editing trends, terminology, and workflow. P/NP or letter grading.

122E. Digital Cinematography. (4) (Formerly numbered 188E.) Lecture, three hours. With lectures, screenings, and laboratory, study the principles of digital cinematography. How tools and techniques affect visual storytelling process. Topics include form, aspect ratios, cameras, lenses, special effects, internal menu picture manipulation, lighting, composition, coverage, high definition, digital exhibition, filtration, multiple-camera shooting. P/NP or letter grading.

123W. Writing for Animation Series. (5) (Formerly numbered 188W.) Lecture, three hours. Introduction to craft and business of writing animation for television. Overview of history of animation produced specifically for this medium, along with its many formats. Business model has changed radically over past five decades, as have types of shows that have been created. Designed to put shows in historical perspective, with eye toward where industry is heading given changes in technology and continuing (and growing) scrutiny of outside forces such as corporations and FCC. Letter grading.

123X. Disney Feature: Then and Now. (5) (Formerly numbered 188X.) Lecture, three hours; discussion, three hours. Study and analysis of Disney's animated features. Examination of why Disney's animated features have dominated until recently and ramifications of this dominance on animation and society. Letter grading.
C168. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Directing or producing program students. Problems of location production, directing, and cinematography in various real-life practical locations. Practical application of solving problems and communication within limitations of production experience. Concurrently scheduled with course C468. Letter grading.

C170A. 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 C470A. Letter grading.

175A-175B. Undergraduate Film Production. (4-8 to 8) Discussion, three hours; laboratory, three hours; film production. May be repeated for maximum of 12 units. Directed and supervised multiscenario production of a single-camera experience, and (3) multiple-camera production styles to which performers may need to adjust. Writing, preproduction, and production for short film. 175B. Lecture, three hours; laboratory, eight hours. Completion of postproduction (editing, creation of sound tracks) for short film begun in course 175A.

175A-176B. Advanced Undergraduate Video Production. (4-8 to 8) Discussion, three hours; laboratory, three hours; film and television majors. Completion of video production (no more than 20 minutes), including its writing, production, and editing. Letter grading.

M177B. Film and Television Action Workshop. (2) Same as Theater M178B. Laboratory, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles in which performers may need to adjust are (1) preproduction rehearsals with director, (2) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.

178. Film and Television Production Laboratory. (2 or 4) Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television production. May be repeated for maximum of 12 units, and up to 8 units may be applied toward Film and Television major. Letter grading.


181B. Writing for Animation. (4 to 8) Lecture, six hours; studio, to be arranged. Requisite: course 181A. Research and preparation in writing and planning for animated film. May be repeated for maximum of 16 units. P/NP or letter grading.

181C. Animation Workshop. (4 or 6) Lecture, six hours; studio, to be arranged. Preparation: storyboard at first class meeting. Requisite: course 181A. Organization and integration of various creative arts used in animation to form complete study of selected topic. May be repeated for maximum of 16 units. P/NP or letter grading.

183A. Producing I: Film and Television Development. (4) Lecture, three hours. Open to nonmajors. Critical analysis of contemporary entertainment industries and practical approach to understanding and implementing production role in development of feature film and television scripts. Through scholarly and trade journal readings, in-class discussions, script analysis, and select guest speakers, exposure to various film and television entities that contribute to feature film and telefilm on development process. Basic introduction to story and exploration of proper technique for evaluating screenplay and teleplays through writing of coverage. May be taken for credit or no credit. Letter grading.

184A. Overview of Contemporary Film Industry. (4) (Formerly numbered 184.) Lecture, three hours. Examination of evolving economic structures and business models of film and television industry, with emphasis on operations of studios and independent distribution companies, their development, marketing, and distribution systems, and their relationship to independent producers, talent, and agencies. Letter grading.

184B. Overview of Contemporary Television Industry. (4) Lecture, three hours. Examination of evolving economic structures and business practices in contemporary Hollywood television industry, with emphasis on operations of networks and cable companies, series development, marketing, and network branding from 1947 to present. Letter grading.

185. Undergraduate and 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.

186A. Introduction to Documentary Production. (Formerly numbered 186B.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Course 186A is requisite to 186B, which is requisite to 186C. Limited to Film and Television majors. Introduction and exercises in selection and presentation of documentary content, including in production of short documentary. Letter grading.

186B. Intermediate Documentary Production Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 186B. Limited to Film and Television majors. Advanced viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of exercises from conceptualization through postproduction, culminating in production of short documentary. Letter grading.

186C. Advanced Documentary Production Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 186B. Limited to Film and Television majors. Advanced viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Letter grading.

187A-187B-187C. Producing and Directing Television and Film, Television, and Digital Media / 347

200. Seminar: Bibliography and Methods of Research in Film and Television. (6) Seminar, three hours; lecture, four hours; fieldwork, four to six hours. Enrollment limited to film and television majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be taken for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Seminar: Bibliography and Methods of Research in Film and Television. (6) Seminar, three hours; lecture, four hours; fieldwork, four to six hours. Enrollment limited to film and television majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be taken for maximum of 8 units. Individual contract required. P/NP or letter grading.

201A. Seminar: Media Industries and Cultures of Production — Foundations. (6) (Formerly numbered 201.) Seminar, three hours; film screenings, three hours. Critical survey of various scholarly traditions and methods (ethnological, sociological, historical, cultural, economic, geographic) that have been used to study film and television production practices as cultural, social, and industrial phenomena, as basis for individual student research projects. Letter grading.

201B. Seminar: Media Industries and Cultures of Production — Transmission. (6) Seminar, three hours; film screenings, three hours. Requisite: course 201A. Examination of contemporary production studies research and transmedia practices, including innovation in marketing, licensing, distribution, industrial organization, creative work, new technologies, and evolving relations between fans and producers in digital economy. Letter grading.

202. Seminar: Media Audiences and Cultures of Consumption. (6) Seminar, three hours; film screenings, three hours. Critical study of reception and use of television and electronic media for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

203. Seminar: Film and Other Arts. (6) Seminar, three hours; film screenings, four to six hours. Directed for graduate students. Studies in interrelationships between film and fine arts, performing arts, and literature, with emphasis on ways these other arts have influenced film. May be repeated twice for credit. S/U or letter grading.

204. Seminar: Visual Analysis. (6) Seminar, three hours; film screenings, two to four hours. Study of visual analysis (or textual analysis), using DVD viewing features, as approach to learning what makes films great and distinct art form. Exploration of role of visual analysis in narrative fiction. Letter grading. Limited to students who can understand some ways it can operate. Letter grading.

205. Seminar: DVD for Film History and Analysis. (6) Seminar, three hours; laboratory, three hours. Preparation of DVD with historical/encyclopedia projects in film and/or television history and analysis designed to be presented as DVD visual essays. Projects may be extensions of work intended for print publication or dissertation writing, or for pedagogical uses. Equal
emphasis on research and DVD creation, and on comparing publication in DVD format versus print publication for... 348 / Film, Television, and Digital Media

206A. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Required; course 106B. Designed for graduate students. Studies in selected historical movements such as expressionism, surrealism, neorealism, New Wave, etc. May be repeated twice for credit. S/U or letter grading.

206B. Seminar: Selected Topics in American Film History. (6) Seminar, three hours; film screenings, four to six hours. Introduces to industrial, social, and aesthetic history of American film. Letter grading.

206D. Seminar: Silent Film. (6) Seminar, three hours; film screenings, two to four hours. Discussion of silent film from its beginning in 1895 to transition to sound cinema in 1927 to 1930. Film viewings discussed in terms of genre, national cinema, formal developments, and directors. Readings on film historical and theoretical issues. Letter grading.

207. Seminar: Experimental Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Examination of various film conventions, both fictional and nonfictional, and of role of structure in motion picture. S/U or letter grading.

208B. Seminar: Classical Film Theory. (6) Seminar, three hours; film screenings, four hours. Study of principal topics and lines of inquiry that characterize theoretical writings of Arnheim, Eisenstein, Bazin, Kracauer, etc. Letter grading.

208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of redefinition of aims and methods of film theory through contemporary writings. S/U or letter grading.

209A. Seminar: Documentary Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Nonfictional film and its relation to contemporary culture. S/U or letter grading.

209B. Seminar: Fictional Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Film as fiction and its relation to contemporary culture. May be repeated once for credit. S/U or letter grading.

209D. Seminar: Animated Film. (4) Seminar, three hours; laboratory, three hours. Designed for graduate students. Critical study of animated film: its historical development, structure, style, use, and relation to contemporary culture. S/U or letter grading.

210. Seminar: Contemporary Broadcast Media. (4) Seminar, three hours (additional hours as required). Designed for graduate students. Consideration of issues raised by recent developments in television and radio, commercial and public, associated with innovations in satellite, cable, and cartridge systems. S/U or letter grading.

211A. Seminar: Historiography. (4) Seminar, three hours. Limited to Film and Television M.A. candidates. Beginning examination of function and methods of writing film and television history as seen in works of key historians in U.S. and Europe. S/U or letter grading.

211B. Seminar: Historiography. (4) Seminar, three hours. Limited to Film and Television Ph.D. candidates. Examination of function and methods of writing film and television history as seen in works of key historians in U.S. and Europe. S/U or letter grading.

215. Seminar: Theory and Method. (6) Seminar, three hours. Limited to Film and Television Ph.D. candidates. Examination of major modes of theoretical reflection that bear on film and television through study of central texts of such traditions as phenomenology, auteurism, semiology, psychoanalysis, sociology, etc. S/U or letter grading.

217A. Seminar: American Television History. (6) Seminar, three hours; screenings, four hours. Critical survey of U.S. television industry from its inception to present. Examination of programming and changes within industry by considering range of technological, economic, aesthetic, social, and cultural dimensions. Letter grading.

217B. Seminar: Selected Topics in Television History. (6) Seminar, three hours; screenings, three hours. Advanced critical seminar, with focus on specific topic or area (historical period, industry, programming, genre, or social formation) in domestic or international television. Letter grading.

218. Seminar: Culture, Media, and Society. (6) Seminar, three hours; discussions/discussion, four hours. Emphasis on discourse of other(s). Thematization of other is concerned with theories of difference rather than similarity or identity — with how other cultures enter into processes of representation and re-signification of politics through metaphors of (1) difference without opposition, (2) heterogeneity without hierarchy, and/or (3) otherness without ethnocentrism. Examination of how others are presented, and Third World peoples have been rendered others; place of cinematic apparatus in this process and how academization of others is positioned vis-a-vis mainstream critical discourse. Letter grading.

219. Seminar: Film and Society. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of ways film affects and is affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

220. Seminar: Television and Society. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of ways television forms affect and are affected by social behavior, belief, and value systems; study of technological and economic aspects of medium. May be repeated once for credit. S/U or letter grading.

221. Seminar: Film Authors. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Intensive examination of works of outstanding creators of films. May be repeated twice for credit. S/U or letter grading.

222. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of patterns, styles, and theories of the Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit. S/U or letter grading.

223. Seminar: Visual Perception. (6) Seminar, three hours; film screenings, three hours. Aesthetic, psychological, physiological, and phenomenological approaches to vision as they relate to ways in which viewers experience and see film, television, and digital media. Letter grading.

224. Computer Applications for Film Study. (6) Lecture, three hours; screenings, three hours. Survey of computer applications relevant to film study, principally computer-vidoeic systems and image capture technology. S/U or letter grading.

225. Seminar: Videogame Theory. (6) Seminar, three hours; laboratory, three hours. Videogame theory, with exploration of nature of medium, rather than looking at history, industrial practice, social effects, or any other of many interesting questions that games also raise. Acknowledgment of roots in film, television, and media studies and investigation of emerging videogame field. S/U or letter grading.


243. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce number of short projects. Concurrently scheduled with course C143. Letter grading.

244. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interface design, and interactivity of connection. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.


246. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory component that explores impact of new digital technologies on contemporary culture and aesthetics. Students do laboratory projects using visualization, image manipulation tools, and Internet authoring tools. Letter grading.


248. Advanced Digital Media Workshop. (4) Discussion, four hours; laboratory, two hours. Designed for students with previous laboratory course experience, course provides opportunity to create larger-scale digital media works with advanced software tools and techniques in 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 emerging digital technologies, resulting new media, and their artistic, economic, and social implications. Topics include digital video, digital preservation of film, World Wide Web, interactive television, and virtual reality. Letter grading.

270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four hours. Designed for graduate students. Study of key theoretical questions of analysis and evaluation in relation to central works of motion picture criticism. May be repeated once for credit. S/U or letter grading.
271. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Analysis of major genres and trends in television production and criticism it has elicited. May be repeated once for credit. S/U or letter grading.

273. 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. S/U or letter grading.

274. Seminar: Research Design. (6) Seminar, three hours; seminars, two; independent study, one; second-year Film and Television Ph.D. students. Examination of general principles that govern formulation of major research projects and preparation of prospectus for Ph.D. dissertation. S/U or letter grading.

276. Seminar: Non-Western Films. (4) Seminar, three hours (additional hours as required). Designed for graduate students. Study of aesthetic and ideological implications of selected films from Africa, Asia, and Latin America. S/U or letter grading.

277. Seminar: Narrative Studies. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of writings on theory of narrative from 19th century to the present. Preparation of final paper and presentation, and research project. S/U or letter grading.

283A. Developing Comedy Series. (4) Seminar, three hours. Basic tenets and analysis of television comedy shows and contemporary industry production and business practices. Development of original ideas for current concepts and pitch for feedback by class, instructor, and guests. Letter grading.

283B. Writing Television Comedy Scripts. (4) Seminar, three hours. Examination of basics of half-hour pilot format, style, and content and learning of principles behind network needs and choices in choosing pilots. Forum in which to discuss ideas and issues with class and instructor. Weekly progress on original pilot script required. Letter grading.

283C. Running Television Comedy Room. (3) Seminar, three hours. Practical knowledge about skills necessary to be writer/executive producer of half-hour comedy show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers’ room, as well as discussing story, writing, and rewriting television scripts. Letter grading.

284A. Developing Drama Series. (4) Seminar, three hours. Basic tenets and analysis of television drama shows and contemporary industry production and business practices. Development of original show concept in pilot format and feedback by class, instructor, and guests. Letter grading.

284B. Writing Television Drama Scripts. (4) Seminar, three hours. Examination of basics of drama pilot format, style, and content and learning of principles behind network needs and choices in choosing pilots. Forum in which to discuss ideas and issues with class and instructor. Weekly progress on original drama pilot required. Letter grading.

284C. Running Television Drama Room. (3) Seminar, three hours. Practical knowledge about skills necessary to be writer/executive producer of one-hour drama show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers’ room, as well as discussing story, writing, and rewriting television scripts. Letter grading.

287A. Introduction to Art and Business of Producing I. (4) Seminar, three hours. Introduction for first-year producers program students to producer’s role in navigating unique dynamic between art and commerce in entertainment industry. Overview of development, production, and distribution of feature films for worldwide theatrical market, including identifying material, attracting talent elements, and understanding basics of studio and independent financing and distribution. S/U or letter grading.

287B. Introduction to Art and Business of Producing II. (4) Seminar, three hours. Requisite: courses 287A and 287B. Presentation of screenplay prepared in course 287B for review by class and instructor with goal of isolating and identifying primary and secondary thesis projects. Discussions of script analysis and creation of development notes for primary projects. Completion of written outline for original projects and pitching of primary projects to panel of industry executives for further feedback. S/U or letter grading.

288A-288B-288C. Feature Film Development I, II, III. (4-4-4) Lecture, three hours. Course 288A is requisite to 288B, which is requisite to 288C. Practical hands-on approach to understanding and implementing producer’s role in development of feature film screenplay and negotiating particulars of production process. Through in-class discussions, script analysis, story notes, and select guest speakers, exposure to various elements that enter into film development process. S/U or letter grading.

288A. Basic introduction to story and exploration of proper technique for developing screenplays through writing of coverage. S/U or letter grading.

288B. Deeper evaluation of screenplay, through writing of story notes. S/U or letter grading.

288C. Story development and art of pitching. Script evaluation and work in groups of two to build three-act structure and create compelling characters for original ideas pitched in class.

289A. Current Business Practices in Film and Television. (4) Discussion, three hours. Requisite: course 288A. Discussion of the world of business realities of industry, with emphasis on television distribution, and business practices. Development of original show concept in pilot format, style, and content and learning of principles behind network needs and choices in choosing pilots. Forum in which to discuss ideas and issues with class and instructor. Weekly progress on original pilot script required. Letter grading.

289B. Strategy. (4) Lecture, three hours. Course 289A is not requisite to 289B. Examination of business realities of industry, with focus on techniques for analyzing behavior, making strategic decisions, and overcoming obstacles results as producer, writer, or director. Assignments designed to assist students in articulating and achieving their goals and to help them effectively transition from classroom to the real-time industry. S/U or letter grading.

289C. Independent Spirit: Creative Strategies for Financing and Distributing Independent Features. (4) Lecture, three hours. Course 289B is not requisite to 289C. Key insights into financing and distribution of independent or specialty films. Topics include film finance, production, marketing, distribution, agents, and new technology, with emphasis on applying this knowledge to individual student projects. S/U or letter grading.

290A. Research and Development I. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings with instructor, students, and various industry guests. Development of one story idea for thesis project. S/U or letter grading.

290B. Research and Development II. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings. Students must make concrete weekly progress on thesis project and adapt strategy based on feedback received. Development of marketing and business strategies for story idea set up in course 290A. S/U or letter grading.

290C. Research and Development III. (4) Seminar, three hours. Final stages of thesis preparation for evaluation. Guidance provided by instructor on how to effectively present selected project. Requirements include industry preparation, script analysis, pitching selected concept, weekly research to understand stand marketplace, accumulation and updating of data, and justification for potential buyers comprised of industry professionals. S/U or letter grading.


291B. Feature Film Marketing. (4) Lecture, three hours. Course 291A is not requisite to 291B. Examination of numerous groups that are responsible for specific marketing components and make up marketing departments. Distribution and in-theater marketing, trailers, publicity, promotions, research, and media. Mechanics and levels of intuition required to make sure movies are seen by public. S/U or letter grading.

291C. Feature Film Distribution and Exhibition. (4) Lecture, three hours. Course 291B is not requisite to 291C. Investigation of philosophy, structure, and major players that make up industry, with emphasis on film distribution and exhibition. Through lectures, readings, and guest speakers, exploration of interrelated arenas of production, marketing, and business affairs, international and national market on distribution and exhibition of studio releases. S/U or letter grading.

292A. Overview of Network Television Management and Production. (4) Lecture, three hours. Designed to expand basic understanding of network and cable television business. Exploration of role of showrunner, executives from networks and production companies, packaging agents, and studio to help writers to develop and creating programming. S/U or letter grading.


292C. Running Shows: Producing for Broadcast and Cable. (4) Lecture, three hours. Course 292B is not requisite to 292C. Exploration of writers—producers or showrunners in creating television shows. Designed to train writers who typically enter field as staff writers and to develop concrete tools of producers. Training of next generation of nonwriting network and studio development executives whose job it is to assist writers-producers in highly collaborative process of creating, developing, producing, and scheduling television programming. S/U or letter grading.

293. Seminar: Film and Television Curatorship. (4) Seminar, three hours (additional hours as required). Designed for graduate students. Study and practice of issues in archival research and administration of museum and other moving-image collections. S/U or letter grading.

294A. Contracts and Negotiation. (4) Lecture, three hours. Survey of range of contracts involved in studio productions, including literary submission and option agreements, artist employment, director employment, writer collaboration agreements, coproduction agreements, music rights license, etc. Actual studio agreements referenced to illuminate potential consequences of each transaction. Negotiation strategy exercises. S/U or letter grading.

294B. Entertainment Law, Business Practices, and Negotiation Strategies. (4) Lecture, three hours. Course 294A is not requisite to 294B. In-depth analysis of structure, economics, and legal aspects of entertainment industry, with emphasis on television and film. Topics include intellectual property and proprietary rights, project development and production,

294C. International Financing and Distribution. (4) Lecture, three hours. Course 294B is not requisite to 294C. Legal-based course dealing with independent finance and distribution of feature films. Topics include finance, distribution, international distribution, European coproductions, role of foreign sales agents and of bankers and completion bond companies. S/U or letter grading.

295A. Art of Presentation. (4) Lecture, three hours. Cultivation of skills needed for students to present themselves and their project goals with clarity and precision to industry professionals. Oral presentations designed to enhance student ability to deliver convincing arguments on range of topics. S/U or letter grading.

295B. Advanced Film and Television Production Workshop for Producers, Writers, and Directors. (4) Lecture, three hours. Course 295A is not requisite to 295B. Designed to help producers, as well as screenwriters and directors, focus on networking opportunities and to develop strategies to bring their feature and television projects to market. Case-study documents (drafts of screenplays, dailies, etc.) from current or recently produced projects provided. S/U or letter grading.

295C. Advanced Producing: Role of Successful Producer. (4) Lecture, three hours. Designed to provide producers with comprehensive understanding of business acumen involved in purchasing scripts for studies and independent production companies. Through script analysis and in-class discussions, students are encouraged to examine not just story elements, but marketing assets inherent in pieces of material. S/U or letter grading.

296A. Role of Talent Agencies. (4) Lecture, three hours. Introductory overview of various departments at agencies, including motion picture literary, talent, story, packaging, and television, and examination of various interactions among each. Exercises encourage producers, writers, and directors to learn how to work effectively with individuals at talent agencies. S/ U or letter grading.

296B. Who Elements Me? (4) Lecture, three hours. Course 296A is not requisite to 296B. In-depth analysis of different forms of representation offered by agents, managers, business managers, and lawyers and detail of legal rights and responsibilities of each. Exercises require students to represent rights holders in series of potential projects. S/U or letter grading.

297A-297B-297C. New Media Marketing I, II, III. (4-4-4) Seminar, three hours. Course 297A is requisite to 297B, which is requisite to 297C. Overview of changing world of storytelling through development of new technologies and new media. Development of short teaser/trailer or website using digital resources (digital cameras, editing, and new media effects) to promote student feature or television thesis project. S/U or letter grading.

298A-298B. Special Studies in Film and Television. (2 to 4 each) Lecture/discussion, two or four hours. Designed for graduate students. Seminar study of problems in film and television, organized on topical basis. May be repeated once for credit. S/U or letter grading.

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

400. Film Image Design Laboratory. (4) Lecture, two hours; laboratory, six hours. Limited to graduate film and television students. Conceptualization and design of nonnarrative film imagery. One-minute experiments in relation of meaning to technique, including manipulation of optics, photochemistry, elements of electronic processes, and display of color and motion. May be repeated once for credit. S/U or letter grading.

401. Film Analysis for Filmmakers. (4) Lecture/ screenings, five hours. Limited to graduate film and television students. Drawing heavily from array of historic approaches for using sound and images to tell tell original stories in present. Focus on strategic decision making in areas of writing, design, cinematography, editing, sound, and performance to enable filmmakers to discover their own personal style for telling stories on screen. Letter grading.

402A-402B. Advanced Narrative Directing Workshops. (4 or 5-8) Limited to nine graduate film and television students. Production of 10- to 15-minute fiction film or project. Letter grading. 402A. Laboratory, six or 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Students budget and preproduce their projects by end of first term. 402B. Laboratory, 12 hours; fieldwork, to be arranged. Requisite: course 402A. In second term students must complete photography on location and/or in studio.


403A-403B-403C. Advanced Documentary Workshops. (4 to 8 each) Lecture/discussion/laboratory, 16 to 24 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to graduate film and television students. Production of documentary film or video projects. Students conceptualize, research, write, shoot (on location), and edit projects to completion. May be repeated once for credit. S/U or letter grading.

404A-404B. Advanced Abstract/Experimental Media Workshops. (8-8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students per section. Production of 20-minute abstract or experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rotating assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

404C. Advanced Abstract/Experimental Media Workshop. (8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students per section. Production of 20-minute abstract or experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rotating assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

405. Television Documentary Workshop. (8) Laboratory, eight hours; other, to be arranged. Limited to graduate television students. Basics of television production and direction, focusing on studio multiple camera with minimal use of remote camera. Use of various formats of video production, including scripted and nonscripted projects, culminating in narrative three-camera project. S/U or letter grading.

406. Experimental Video Workshop. (4) Laboratory, six hours; other, to be arranged. Limited to graduate film and television students. Introduction to independent and experimental video with examination of impact of new video technologies in television, covering concepts of video art, new television, digital video, high-definition TV, and film and tape postproduction. S/U or letter grading.

407. Video Documentary Workshop. (8) Laboratory, 12 hours. Limited to graduate film and television students. Exploration of documentary video, including screening of international works and producing and postproduction on projects started in courses 404A and 404B. Letter grading.

408. Television Production Workshop. (8) Laboratory, eight hours; other, to be arranged. Limited to graduate television students. Basics of television production and direction, focusing on studio multiple camera with minimal use of remote camera. Use of various formats of video production, including scripted and nonscripted projects, culminating in narrative three-camera project. S/U or letter grading.

409. Directing Actors for Camera Workshop. (4) Workshop, six hours; laboratory, to be arranged; laboratory preparation, two to four hours. Limited to M.F.A. production program students. Team-taught with five weeks designed to give director actor/camera techniques, and five weeks to offer basic strategies to elicit good performances from actors. Emphasis on problems faced when directing actors for film. S/U or letter grading.

410A. Symposium. (Seminar, three hours. Limited to and required of first-year M.F.A. production program students. Exploration of film and television production within context of preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical craft courses. Preparation of strategies for learning production within academic environment. May be repeated for credit. Letter grading.

410B. Cinematography. (Seminar, three hours. Limited to and required of first-year M.F.A. production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410C. Postproduction. (Seminar, three hours. Limited to and required of first-year M.F.A. production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410D. Postproduction Sound. (Seminar, three hours. Requisites: courses 405, 409. Limited to and required of first-year M.F.A. production program students. Technical and aesthetic aspects of postproduction sound recording, editing, and re-recording for film and television. Application of principles of sound design to student films while using UCLA’s John Candy Room and Scoring Stage for Automatic Dialogue Replacement (ADR), Foley, and mixing. Use of Pro Tools LE for recording, editing, and mixing, selection and use of microphones and mixing consoles, and incorporation of Final Cut Pro soundtracks into mix environment. Students record ADR and Foley and present mix of edited dialogue/ADR, Foley, mix, and music tracks by end of term. Letter grading.

410E. Production. (12) Lecture, three hours; fieldwork, 24 to 40 hours. Requisites: courses 401, 409, 410A through 410D. Limited to and required of first-year M.F.A. production program students. Production workshop designed to give hands-on experience in film production. Students prepare and direct six-minute films and serve in preassigned crew positions for each other. Letter grading.

411. Survey of Multimedia Production. (4) Lecture, three hours; laboratory, three hours. Introduction to various methods of digital production, with focus on photo manipulation, desktop nonlinear postproduction, and distribution on World Wide Web. Letter grading.


417. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Limited to graduate film and television students. Lectures, supervised exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood and atmosphere. Original lighted scene recorded on film or through 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-
419. Advanced Cinematography. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses 417, 418. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, light, and selection of film, camera, and lenses. S/U or letter grading.


423B. Direction of Production for Actors and Production for Film and Television. (4) Studio laboratory, six hours. Requisite: course 423A. Limited to graduate film and television students. Advanced study and practice of directing and producing actors on set. Emphasis on developing techniques to immediately enhance communication between director and actor on set in order to maintain continuity from shot to shot. S/U or letter grading.

C430. Screenwriting Fundamentals. (2) Lecture, one hour. Corequisite for graduate students enrolled in course 431. Examination of screenwriting fundamentals: structure, character and scene development, conflict, locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C132. S/U or letter grading.

431. Introduction to Film and Television Screenwriting. (4) Lecture, three hours. Limited to graduate film and television students. Introductory course in problems of film and television screenwriting. S/U or letter grading.


434. Advanced Screenwriting. (8) Discussion, three hours. Requisite: course 130A. Advanced problems in writing original television screenplays. May be repeated twice for credit. Letter grading.


452B. Music Recording Workshop. (4) Lecture, four hours; studio, eight hours. Supervised exercises in studio music recording techniques, with emphasis on special requirements for motion pictures and television. S/U or letter grading.

C452C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to departmental majors. Through lecture/discussion and practical assignments, students gain knowledge and tools necessary to complete postwork on their projects. Exploration of all areas of postproduction sound design from editing to final mixing. How to effectively use sound design for purposes of storytelling, music, etc. S/U or letter grading.

453. Postproduction Sound Design. (2 to 4) Lecture, three hours. Designed to give film students insight into world of postproduction sound and to provide knowledge and tools necessary to complete postwork on their projects. Exploration of all areas of postproduction sound design from editing to final mixing. How to effectively use sound design for purposes of storytelling, music, etc. S/U or letter grading.

454A. Advanced Film Editing. (4) Lecture, three hours; laboratory, to be arranged. Preparation: submission of rough cut and/or copy of screenplay. Limited to those in advanced project and advanced project students in postproduction phase of thesis or advanced project. Organization and operation of postproduction process. Letter grading.

C454B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of existing project or project proposal to edit work of another director. Requisites: courses 100, 154, 185. Limited to students in postproduction phase of thesis or advanced project. Preparation and operation of postproduction process. Letter grading. Concurrently scheduled with course C154B. Letter grading.

454C. Advanced Film Editing: Postproduction Pathways. (2 to 4) Lecture, three hours; laboratory, two hours. Limited to departmental majors. Through discussion, class visits, studio visits, and practical assignments, students gain knowledge and practical experience in video postproduction: script development, preproduction planning and production of group short film. S/U or letter grading.

475. Film I. (8) Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of basic techniques of film production and narration. S/U or letter grading.

476. Video I. (8) Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of postproduction techniques. S/U or letter grading.

478. Video II. (8) Discussion, three hours; studio, to be arranged. Designed for graduate students. Advanced study of video production techniques and the working of video projects. S/U or letter grading.
### Scope and Objectives

The following courses offered in the department of language and literature do not require reading knowledge of any foreign language.

### Foreign Literature in Translation

#### Course List

**Afrikanas (Germanic Languages)**
- **40.** From Oppressed to Oppressor and Beyond: Literature in Afrikanas from Preapartheid to Postapartheid Era in English Translation

**Ancient Near East (Near Eastern Languages)**
- **150A-150B-150C.** Survey of Ancient Near Eastern Literatures in English

**Arabic (Near Eastern Languages)**
- **150.** Classical Arabic Literature in English

**Armenian (Near Eastern Languages)**
- **150A-150B-150C.** Survey of Armenian Literature in English

**Asian (Slavic Languages)**
- **151.** Buddhist Literature in Translation

**Central and East European Studies (Slavic Languages)**
- **126.** Coldwar Central European Culture

**Chinese (Asian Languages)**
- **C150A.** Lyrical Traditions
- **150B.** Chinese Literature in Translation: Traditional Narrative and Fiction

**Classics**
- **40W.** Reading Greek Literature: Writing-Intensive
- **41W.** Reading Roman Literature: Writing-Intensive

**Comparative Literature**
- **137.** Ancient Lives: Art of Biography
- **140.** Topics in History of Greek Literature
- **141.** Topics in History of Latin Literature
- **142.** Ancient Epic
- **143A.** Ancient Tragedy
- **143B.** Ancient Comedy
- **144.** Topical Studies in Ancient Culture

**Dutch (Germanic Languages)**
- **10.** Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes

**English**
- **111A.** Hebrew Bible in Translation
- **111B.** Christian Biblical Texts in Translation
- **111C.** Topics in Biblical Literature
- **112A.** Oral Tradition
- **112B.** Celtic Mythology
- **112C.** Survey of Medieval Celtic Literature

**French (French and Francophone Studies)**
- **112D.** Celtic Folklore
- **112E.** Chinese Immigrant Literature and Film

**German (Germanic Languages)**
- **50A-50B.** Great Works of German Literature in Translation

**Greek (Classical Studies)**
- **40W.** Reading Greek Literature: Writing-Intensive

**Hindi (Indic Languages)**
- **50A.** Great Works of Hindi Literature in Translation

**Icelandic (Germanic Languages)**
- **10.** Contemporary Icelandic Society and Culture: Beyond Ólafsson, Skattaborg, and Skattaborg Shoes

**Indonesian (Indonesian Languages)**
- **112A.** Aboriginal Culture

**Italian (Italian Languages)**
- **112A.** Oral Tradition

**Japanese (Asian Languages)**
- **C150A.** Lyrical Traditions

**Korean (Korean Languages)**
- **112A.** Archbishop's Journey to Seoul

**Latin (Classical Studies)**
- **140.** Topics in History of Greek Literature

**Persian (Iranian Languages)**
- **112A.** Aboriginal Culture

**Portuguese (Portuguese Languages)**
- **112A.** Oral Tradition

**Russian (Slavic Languages)**
- **112A.** Oral Tradition

**Scottish (Celtic Languages)**
- **112A.** Oral Tradition

**Spanish (Spanish Languages)**
- **112A.** Oral Tradition

**Swedish (Swedish Languages)**
- **112A.** Oral Tradition

**Turkish (Turkish Languages)**
- **112A.** Oral Tradition

**Vietnamese (Vietnamese Languages)**
- **112A.** Oral Tradition
Scope and Objectives

The Department of French and Francophone Studies is a major West Coast center for the study of French. In recent decades French critical thought has maintained a dominant position in the Western world. The department seeks to give its students not only a background in the various fields of French and Francophone studies, but also opportunity to relate literary, linguistic, and cultural study to examination of the critical intellectual questions of our time.

The undergraduate lower division program is designed to provide practical competence in French after one year and thorough basic knowledge of the language after two years.

The undergraduate upper division program is chiefly devoted to perfecting linguistic skills and to the study of French and Francophone culture and literature. Courses in linguistics and business French are also offered. Students graduating with a Bachelor of Arts in French should be fully fluent in French and possess a thorough background in French and Francophone literature and culture. Both Bachelor of Arts degrees lead to graduate studies in French.

The graduate program offers both M.A. and Ph.D. degrees and comprises training in the

FRENCH AND FRANCOPHONE STUDIES

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Lisa N. Brozgali, Ph.D.

Senior Lecturer
Kimberly Jansma, Ph.D.

Lecturer
Laurence M. Dené-Higney, Ph.D.

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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 majors are French 6, 12, or equivalent. Courses 105 through 109 are not sequential and may be taken in any order, provided the requisites for each course are fulfilled.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in French grammar and/or composition.

The French major is a designated capstone major. Students are required to complete a capstone seminar that is thematically devised to reflect current trends in the discipline. Through the capstone experience, students work closely with a faculty member on a focused topic of research. They engage in presentations and weekly discussions and write a research paper demonstrating language proficiency, critical and creative thinking, analytical skills, and a cultural perspective.

French B.A.

Capstone Major

Preparation for the Major

Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

Transfer Students

Transfer applicants to the French major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and one French literature course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Two plans are offered by the department:

Plan I: French/ Francophone Studies in Literature and Culture

Required: French 100, 101, two courses from 114A, 114B, 114C, 191B (senior capstone seminar), and six 4-unit courses in French and Francophone literature and/or culture selected from upper division offerings in the department in language, civilization, literature, or the arts. One upper division elective course from outside the department may be substituted in the major program with consent of the undergraduate adviser. Each course must be taken for a letter grade.

Plan II: Interdisciplinary French/ Francophone Studies

Required: French 100, 101, one course from 114A, 114B, or 114C, 191B (senior capstone seminar), four upper division elective courses in French and Francophone studies, and three upper division elective courses in fields relevant to French and Francophone studies to be selected from outside the department in consultation with the undergraduate adviser. Each course must be taken for a letter grade.

Plan III, with emphasis on French and Francophone culture, is a core program in French allowing for individual selection of relevant courses in related fields such as humanities, social sciences, gender studies, and linguistics.

It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level.

If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper division courses in the French and Francophone Studies Department in consultation with an adviser. All prospective French majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper division work in the major.

All majors must complete a minimum of nine courses of appropriate upper division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 8 units of course 199 may be applied toward the elective requirements for the major if approved in advance by the undergraduate adviser. Students must maintain a C average in upper division major courses in order to remain in the French major.

Coursework taken on a Passed/Not Passed basis is not acceptable in any area of the major program.

It is recommended that students intending to major in French consult the undergraduate adviser before enrolling in upper division courses.

French and Linguistics B.A.

Preparation for the Major

Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent, Linguistics 20, completion of the sixth term of one other foreign language or the third term in each of two other foreign languages. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

Transfer Students

Transfer applicants to the French and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French, one French literature course, and one introduction to linguistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: French 100, 101, 104, one course from 114A, 114B, or 114C, two courses from 105, 107, 108, 109, 110, one upper division French elective course, and Linguistics 103, 110, 120A, 120B. Each course must be taken for a letter grade.

It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level.

If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper division courses in the French and Francophone Studies Department in consultation with an adviser. All prospective French and Linguistics majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper division work in the major.

All majors must complete a minimum of nine courses of appropriate upper division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 8 units of course 199 may be applied toward the elective requirements for the major if approved in advance by the undergraduate adviser. Students must maintain a C average in upper division major courses in order to remain in the French and Linguistics major.

Coursework taken on a Passed/Not Passed basis is not acceptable in any area of the major program.

It is recommended that students intending to major in French and Linguistics 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 composition from an advanced language or literature course to the honors committee. If the work submitted meets with approval, students are admitted to the program.

To graduate with departmental honors, students must complete a minimum of two honors projects in the context of nonhonors upper division courses (French 115 and above) taken for honors credit. They must do an honors project (a research paper of 12 to 15 pages) in addition to the regular course requirements. An honors contract must be signed before the end of the third week of the term. After completing the project, students fill out a completion form.

On the basis of their coursework and field of interest, students are expected to formulate a research topic they wish to pursue in greater depth. They take course 198 where they receive regular personal supervision from a faculty member in the research, methodology, and writing of their approximately 30- to 35-page honors thesis (honors projects and the honors thesis are not to be confused).

Students may begin the honors program toward the end of their junior year or during their senior year. Students are allowed to enroll in graduate courses in language, culture, or literature courses in language, culture, or literature to improve listening comprehension and pronunciation. They take course 198 where they receive regular personal supervision 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).

To enter the French minor, students must have completed course 1 with grade of C– or better.

Required Upper Division Courses (20 units):

French 100 or 101, and four additional departmental courses in language, culture, or literature to be selected in consultation with an undergraduate counselor.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa /library/pgmrqsintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in French and Francoophone Studies.

French

Lower Division Courses

1. Elementary French. (4) Lecture, five hours. P/NP or letter grading.

1G. Elementary French for Graduate Students. (3) Lecture, three hours. Preparation for GSFLT or other language examinations. Passing grade does not imply satisfaction of language requirements. S/U grading.

2. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.

3. Elementary French. (4) Lecture, five hours. Enforced requisite: course 2 with grade of C– or better. P/NP or letter grading.


8. Intensive First-Year French. (12) Lecture, 15 hours. All-in-French intensive language program equivalent to first year of college French and designed to develop basic language skills. Additional work in language and media laboratory required. Offered in summer only. P/NP or letter grading.

9. Intensive Second-Year French. (8) Lecture, 10 hours; media laboratory, three hours. Enforced requisite: course 6. Intensive course equivalent to first two terms of intermediate French and designed to improve proficiency in reading, writing, and speaking. Offered in summer only. P/NP or letter grading.

10. Introduction to Study of French and Francophone Literature. (5) Lecture, two hours; discussion, one hour. Course 6. Enforced requisite: course 3 with grade of B or better. P/NP or letter grading.

11. Introduction to French Culture and Civilization in England. (5) Lecture, four hours; discussion, one hour. Not open for credit to students with credit for course 14W. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. P/NP or letter grading.


41. French Cinema and Culture. (5) Lecture/ screenings, five hours; discussion, one hour. Introduc- tion to French cinema and culture through screening of films of cultural and literary significance. P/NP or letter grading.

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60. French and Francophone Novel. (5) Lecture, three hours; discussion, one hour. Study of literary masterpieces produced by writers from France and Francophone world (Canada, Africa, Caribbean, etc.) from 17th to early 21st century. P/NP or letter grading.

Upper Division Courses


104. Theory and Correction of Diction. (4) Formerly numbered 15.) Lecture. Enforced requisite: course 6. Study of individual sounds (vow- els, consonants, and semi-vowels), including rhythm, intonation, and phrasing, and of learning sound spelling correspondences to help sight read accurate- ly. Thorough study of symbols of International Phonet- ical Alphabet (IPA) to give students tools to work on pro- nunciation systematically. Standard French serves as model, on examination of pronunciation changes and various dialects that are spoken in Francophone world to improve listening comprehension and pro- nunciation. P/NP or letter grading.


112. Medieval Foundations of European Civilization. (4) Lecture, three hours; discussion/film screen- ings, two hours. Medieval texts, culture, social struc- ture, and political history as they lay the bases of Europe- an modernity. P/NP or letter grading.


114A. Medieval and Renaissance Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including ex- amples of epic (La Chanson de Roland), romance (Chretien de Troyes’ Yvain), and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Rab- belais, 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. Enlightenment, including those by Racine, Pascal, La Fayette, La Fontaine, Laclos, Diderot, Voltaire, and Rousseau. P/NP or letter grading.


115. Studies in Medieval French Culture and Literature. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of medieval French culture and literature, including lyric poetry and narrative romance, history of medieval warfare, comedy, and class structures. May be repeated for credit with topic change. P/NP or letter grading.

116. Studies in Renaissance French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of Renaissance French culture and literature, including la Pèiade and 16th-century poetry, linguistic and poetic revolution, novel and early prose, and late French humanism. May be repeated for credit with topic change. P/NP or letter grading.

117. Studies in 17th-Century French Culture and Literature. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of 17th-century French culture and literature, including theater, philosophers, moralists, novelists, and cultural, political, social, religious, and courtly aspects. May be repeated for credit with topic change. P/NP or letter grading.

118. Studies in 18th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 18th-century French culture and literature, including satire, novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.


120. Studies in 20th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 20th-century French culture and literature, including early 20th-century writers, surrealism, literature from World War II literature, existentialism, new novel, theater, and poetry. May be repeated for credit with topic change. P/NP or letter grading.

121. Studies in Francophone Cultures and Literatures. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of Francophone cultures and literatures, including works by poets, playwrights, and novelists from Caribbean, North Africa, Quebec, and sub-Saharan Africa, immigrant narrators, and colonialist and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.

130. Contemporary French and Francophone Cultures. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Study of contemporary Francophone world (Africa, Asia, Caribbean, Quebec), government, institutions, and cultural, economic, social, and political issues. May be repeated for credit with topic change. Letter grading.

131. French and Francophone Theater. (4) Lecture, three hours. Taught in French. Through plays of 20th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialism, absurd), and cultural (colonialism and conformism). May be repeated for credit with topic change. P/NP or letter grading.


137. French and Francophone Intellectual History. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Exploration of themes that address particular problem of French literature, civilization, or ideas. May be repeated for credit with topic change. P/NP or letter grading.

138. Contemporary French Theory. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Study of French theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray) and major concepts in contemporary French thought, with attention to its application to literary and nonliterary texts. May be repeated for credit with topic change. P/NP or letter grading.


141. French Cinema. (4) Lecture, three hours. Taught in French. Through plays of 20th century, analysis of struggles of individuals and social, religious, and courtly aspects. May be repeated for credit with topic change. P/NP or letter grading.

142. Francophone Cinema. (4) Lecture, three hours. Taught in French. Study of French cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.


201. Techniques of Literary Analysis. (4) Lecture, three hours. Practice in close analysis of literary texts, including explication de texte. S/U or letter grading.

202. Cultural Studies. (4) Lecture, three hours. Introduction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emergent disciplines and theories such as sociology and anthropology, city, revolution, avant-garde strategies, media, diaspora during postwar modernization, Algerian War, May 68, and beyond. Theorists include Barthes, de Certeau, Benveniste, Baudrillard, Lyotard, Ross, Rey Chow, Virilio, S/U or letter grading.

203. Contemporary Francophone Literature. (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, na-
tionalism, resistance and dissidence, and postcolonial
theories. (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 litera-
tures 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 in-
clude Georges Gusdorf, Philippe Lejeune, Paul de Man,
Jacques Derrida, Helene Cixous, Michel Fou-
cault, 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) Lecture, three hours. Discussion of principles of
generative anthropology and their application 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) Seminar, three
hours. Particular problems in French literature and ideas.
May be repeated for credit. S/U or letter grad-
ing.
208. Studies in Literary Criticism. (4) Seminar, three
hours. Readings in literary criticism, theory, and
literature from any period of French literature. May be
repeated for credit. S/U or letter grading.
209. Studies in Literary Genre. (4) Seminar, three
hours. Advanced research and study of literary
genres such as poetry, drama, fiction, autobiography,
or performance and of theory of these genres. S/U or
letter grading.
210. Paleography of Latin and Vernacular Manu-
scripts, 900 to 1500. (4) (Same as Classics M218, English
M215, and History M218.) Lecture, three
hours; discussion, two hours. Introduction to history of
Latin and vernacular manuscript book from 900 to
1500 to (1) train students to make informed judg-
ments with regard to place and date of origin, (2) pro-
vide training in accurate reading and transcription of
later medieval scripts, and (3) examine manuscript
book as witness to changing society that produced it.
Focus on relationship between Latin manuscripts and
vernacular manuscripts with regard to their respective
origins. S/U or letter grading.
214. Problematiques of Medieval Language and Lit-
erature. (4) Lecture, three hours. Introduction to Old
French and problems of medieval literature. S/U or
letter grading.
215. Studies in Middle Ages. (4) Seminar, three
hours. Examination of nature of cross-cultural, cross-
linguistic, and cross-confessional exchange in medi-
 eval and early modern periods and France's role in it.
S/U or letter grading.
216. Renaissance. (4) Lecture, three hours. French
literature of 16th century studied within historical, in-
tellectual, and cultural contexts. Letter grading.
217. 17th Century. (4) Lecture, three hours. Read-
ings in 17th-century literature studied within historical,
cultural, and literary contexts. S/U or letter grading.
218. Enlightenment. (4) Lecture, three hours. Read-
ings in 18th-century literature thought: novels, satires,
plays, and other key Enlightenment philosophies. Letter grading.
219. 19th Century. (4) Lecture, three hours. Read-
ings in 19th-century literature, covering development of
novel, lyric poetry, and theater from Romantic peri-
od to fin-de-siecle. S/U or letter grading.
220. 20th Century. (4) Lecture, three hours. Over-
view of French postwar and analytical, of 20th-century
French literature set in context of several key critical
topics that interrogate canonical interpretation. Letter grading.
227. Seminar: Literary Theory. (5) (Same as Asian
L251, Comparative Literature M294, English
M270, German M270, Italian M270, Scandinavian
M270, and Spanish M294.) Seminar, three hours.
Advanced interdisciplinary seminar to explore philosop-
ical, historical, and critical foundations of literary theo-
ry as well as current issues in literary and cultural studies. S/U or letter grading.
296. Research Methods and Writing. (2) Seminar,
two hours. Advanced study of current topics in literary
and cultural analysis and in critical theory. Discussion of
current research and literature in research specialty of
faculty member teaching course. S/U or letter grading.
299. Research Resources for European Studies. (2)
(Same as German M299, Information Studies
M299, Italian M299, Slavic M299, and Spanish
M299.) Lecture, two hours. Essentials of library re-
search strategy and techniques in key print and
online resources for European and Russian stud-
ies. Through combination of lecture, online demon-
stration, and hands-on activities in and outside class,
students understand how to efficiently use library and
databases. S/U grading.
300. Teaching French in Secondary School. (4)
Lecture, three hours; discussion, one hour. Required of
all candidates for general secondary instructional
credential in French. S/U or letter grading.
305A-305B. Studies in Cinema and Literature. (4-
4) Lecture, three hours. Preparation: apprentice person-

ological theory and cultural analysis and in critical theory. Discussion of
current research and literature in research specialty of
current thesis advisors. S/U or letter grading.
357. Teaching Apprentice Practicum. (1 to 4) Sem-
inar, to be arranged. Preparation: apprentice person-

ological theory and cultural analysis and in critical theory. Discussion of
current research and literature in research specialty of
current thesis advisors. S/U or letter grading.
ics. Seminar, three hours. Enforced requisite: course 21B. Examination of cross-section of classical and modern social theories and debates that shape them. Satisfies Writing II requirement.

22A-22B-22CW. Toward World Economy: Perils and Promise of Globalization. (5-5-5) Course 22A is enforced requisite to 22B, which is enforced requisite to 22CW. Limited to first-year freshmen. Letter grading. 22A-22B. Lecture, three hours; discussion, two hours. Exploration of causes and mechanisms of globalization as well as its consequences. Critical examination of theories, international tautologies of trade, finance, governance, and overall impact of globalization on human society. 22CW. Special Topics. Seminar, three hours. Enforced requisite: course 22A. Special Topics. Seminar, three hours; discussion, two hours. Enforced requisite: course 22B. Special Topics. Seminar, three hours; discussion, two hours. Enforced requisite: course 22CW.

23A-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (5-5-5) Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW. Limited to first-year freshmen. Letter grading. 23A-23B. Lecture, four hours; discussion, two hours. Introduction to historical development and evolution of performing arts, aesthetic theories and practices, and political, social, and cultural contexts within which performance has evolved. 23CW. Special Topics. Seminar, three hours. Enforced requisite: course 23B, and English Composition 3 or 3H or English as a Second Language 36. Topics may include global governance, development, and health. Satisfies Writing II requirement.

24A-M24B-M24CW. Work, Labor, and Social Justice in U.S. (6-6-6) (Same as Labor and Workplace Studies M1A-M1B-M1CW) Course M24A is enforced requisite to M24B, which is enforced requisite to 24CW. Limited to first-year freshmen. Letter grading. 24A-M24B. Lecture, three hours; discussion, two hours. Historical development and evolution of working class in the United States, its transformation over the last century, and role of labor movement as force for social justice. M24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

25A-25B-25CW. Politics, Society, and Urban Culture in East Asia. (6-6-6) Course 25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshmen. Letter grading. 25A-25B. Lecture, three hours; discussion, two hours. Comprehensive multi-historical, multi-sociocultural examination of popular East Asian urban culture and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 25CW. Special Topics. Seminar, three hours. Enforced requisite: course 25A. In-depth examination of issues in historical and contemporary East Asian popular culture. Satisfies Writing II requirement.

26A-26B-26CW. Poverty and Health in Latin America. (6-6-6) Course 26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A. Lecture, three hours; discussion, two hours. Introduction to health issues in different countries of Latin America and on different local, national, and regional levels. Special Topics. Seminar, three hours. Enforced requisite: course 26A. Responses to health inequities and possible solutions to promote improved health outcomes and to social determinants of health illustrated through examples of current programs and policies. Major areas for addressing health inequity include governance, community action, social justice and human rights movements, health sector and public health programs, and global priorities. Introduction to tools to promote health, such as service delivery, health workforce, information systems, access to medicines, health systems financing, and health systems governance. 26CW. Special Topics. Seminar, three hours. Enforced requisite: course 26B. Students must engage with topics related to course theme to allow them to study, discuss, and then generate policy solutions to create more equitable healthcare in Latin America. Focus on one particular area of Latin America, such as U.S. - Latin American or Central American community to reflect field study sites to eventually be offered and serve as preparation for a summer field component. Satisfies Writing II requirement.

30A-30B-30CW. Never-Ending Stories: Multidisciplinary Perspectives on Myth. (6-6-6) Course 30A is enforced requisite to 30B, which is enforced requisite to 30CW. Limited to first-year freshmen. Letter grading. 30A-30B. Lecture, three hours; discussion, two hours. Examination in depth of particular mythological traditions, aspects of storytelling, role of myth in culture, society, and/or art, and contributions of various disciplines to study of myth. 30CW. Special Topics. Seminar, three hours. Enforced requisite: course 30B. Topics may include myth and modern art (including literature, music, and film), myth and ritual, in-tradition and orality, myth and political ideology, myth and science, hero and trickster, and myths of creation. Satisfies Writing II requirement.

60A-60B-60CW. America in Contexts: Politics, Society, and Culture. (6-6-6) Course 60A is enforced requisite to 60B, which is enforced requisite to 60CW. Limited to first-year freshmen. Letter grading. 60A-60B. Lecture, three hours; discussion, two hours. Interdisciplinary examination of U.S. society from Brown versus Board of Education (1954) to resignation of Nixon. Topics include civil rights, Great Society, anti-Vietnam war movement, political and artistic countercultures, and changes in technology, law, and media. 60CW. Special Topics. Seminar, three hours. Enforced requisite: course 60B. In-depth examination of political and cultural issues affecting U.S. society from 1954 to 1974. Satisfies Writing II requirement.

66A-66B-66CW. Los Angeles: The Cluster. (6-6-6) Course 66A is enforced requisite to 66B, which is enforced requisite to 66CW. Limited to first-year freshmen. Letter grading. 66A-66B. Lecture, three hours; discussion, two hours. In-depth look at city in which UCLA is located. Drawing on concept of Los Angeles as laboratory, students engage in systematic way with urban area that is to be their home for next several years. As they do, they come to understand peoples, spaces, politics, and cultures of Los Angeles and its metropolitan region past, present, as well as Los Angeles’ place in urban world. 66CW. Special Topics. Seminar, three hours. Enforced requisite: course 66B. Topics may include musical cultures of Los Angeles, Los Angeles in fiction, Southern California and environment, planning for 21st-century Los Angeles, and housing and homelessness in Los Angeles. Satisfies Writing II requirement.

70A-70D. Evolution of Cosmos and Life. (6 each) Course 70A is enforced requisite to 70B, which is enforced requisite to 70C or 70D. Limited to first-year freshmen. Letter grading. 70A-70B. Lecture, three hours; discussion, three hours. Exploration of core concepts of evolution, as it applies to biological organisms, Earth, solar system, and universe itself, to introduce students to both life and physical sciences. Examination of evolution of universe, galaxy, solar system, and Earth in course 70A; focus on evolution of life in course 70B. 70CW. Special Topics in Life Sciences. Seminar, three hours. Enforced requisite: course 70B. Topics may include gender and gender inequality, sexuality, sexual orientation, gender stereotyping, and sexual identity. Satisfies Writing II requirement.

97A. Cluster Colloquia: Variable Topics. (1) Seminar, one hour. Special Topics in one cluster. Enrolled students have completed one GE cluster. Study through small group discussion and projects, of selected topics related to one cluster theme or topic. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. P/N grading.
The gender studies curriculum challenges the pervasive theory/practice divide within the academy. In both undergraduate and graduate courses, students are taught a broad range of methodological and analytical skills. Core undergraduate courses contextualize foundational theories and key analytic concepts within the study of different historical periods and social movements. In designing these courses, Power, Knowledge, and Bodies, the department identifies three primary areas in which feminist and queer inquiry has been concentrated over time, enabling students to trace grounding concepts, key controversies, and the emergence of new theoretical paradigms.

The department has long enjoyed recognition for its strengths in areas including women’s history, feminist science studies, and gender and the law. Over the past several years, it has become a leading program for interdisciplinary intersectional feminist scholarship on gender, sexuality, race, class, and nationality and is building a strong reputation in the areas of transnational literary and media studies, post-colonial feminist studies, and studies of settler colonialism.

**Undergraduate Study**

**Gender Studies B.A.**

The major in Gender Studies may be taken alone or in conjunction with another Letters and Science major. In the case of a double major, no more than five courses may be applied toward both majors.

### Admission

To be admitted to the major, students must have completed Gender Studies 10, to be in good standing, and formally register with the department. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the undergraduate adviser.

Students are encouraged to draw on 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.

Each course applied toward the major must be taken for a letter grade, and students must have a grade-point average of 2.0 or better in women's studies courses to receive credit for completing the program. Courses in which they receive grades of C– or lower may not be applied toward the required courses in the major.

### Preparation for the Major

Required: Gender Studies 10. Students must also complete departmental lower division requirements, as applicable, for upper division gender studies courses.

### Transfer Students

Transfer applicants to the Gender Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary gender studies course and departmental lower division prerequisites.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.htm for up-to-date information regarding transfer selection for admission.

### The Major

The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods and (2) provide exposure to a range of feminist and queer scholarship across disciplines. To achieve these goals, the major is divided into three categories.

**Required for Students Who Entered Prior to Fall Quarter 2011: At least 11 upper division courses (minimum of 4 units each) as follows: (1) two core courses selected from Gender Studies 102, 103, 104, M110C, 130, or former courses 110A and 110B, (2) eight elective courses; one upper division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar).**

**Required for Students Who Entered Fall Quar- ter 2011 and Thereafter:** At least 11 upper division courses (minimum of 4 units each) as follows: (1) three core courses — Gender Studies 102, 103, 104, (2) seven elective courses; one upper division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar).

### Honors Program

The honors program is open to advanced junior and senior Gender Studies majors with a 3.6 grade-point average in gender studies courses and a minimum 3.4 overall GPA who have no outstanding incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the department chair for approval.

To qualify for honors at graduation, students must successfully complete three successive terms of honors research (courses 198A, 198B, 198C) with their faculty sponsor and receive a grade of B+ or better on their research paper/project. Course 198A may be applied toward the elective requirement; courses 198B and 198C are in addition to the minimum required courses. Further information is available from the undergraduate counselor in the department office.

### Gender Studies Minor

The Gender Studies minor augments and enriches study in a traditional field. Students participating in this program are required to complete both a departmental major and the Gender Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better and formally register with the department undergraduate advisers in 1120 Rolfe Hall. They are encouraged to declare the minor as early as possible.

**Required Lower Division Course (5 units): Gender Studies 10. Students must also complete departmental lower division requirements, as applicable, for upper division gender studies courses.**

**Required Upper Division Courses (24 units): (1) One core course from Gender Studies 102, 103, or 104, (2) 120 or 187 or an equivalent senior research seminar approved in advance, and (3) four upper division courses (minimum
of 4 units each) from the approved gender stud-
ies course list. No more than 4 units of courses 195 through 199 may be applied. A
minimum of 20 units applied toward the minor
requirements must be in addition to units applied
toward major requirements or another minor.
Each minor course must be taken for a letter
grade, and students must have an overall grade-
point average of 2.0 or better. Courses in which
students receive grades of C– or lower may not be applied toward the core require-
ments in the minor. Successful completion of the
minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate
Division website, http://grad.ucla.edu/gsasa/
library/pgmqrintro.htm. In many cases, more
detailed guidelines may be outlined in an-
nouncements, other publications, and websites
of the schools, departments, and programs.

Graduate Degrees
The Gender Studies Department offers Master
of Arts (M.A.) and Doctor of Philosophy (Ph.D.)
degrees in Gender Studies.

Gender Studies
Lower Division Course
10. Introduction to Women’s Studies: Feminist
Perspectives on Women and Society. (5) Lecture,
three hours; discussion, two 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 subordination; the female experi-
ence; the male experience; relations between women and men;
intersections of ethnicity, class, and gender;
violence against women and men; and gender images of women and men;
role of women in society and changes in social roles of women and men and move-
ments for social change. P/NP or letter grading.

Upper Division Courses
102. Power. (4) Lecture, three hours. Enforced re-
quise: course 10. Exploration of the impact of women and men on social,
political, and economic systems. How have feminist theorists addressed
power in institutions ofFFECTEN? How have they sought to change
institutions of POWER? How do gender and sexuality regulated by
law, nation, and economy? P/NP or letter grading.

103. Knowledge. (4) Lecture, three hours. Enforced requisites: course 10. Exploration of social production of
knowledge about gendered subjects and gender systems. Students engage key issues in feminist theo-
y and feminist epistemology. How do feminist scholar-
s identify and frame research questions? What is knowledge about marginalized subjects produced?
How has feminism challenged dominant understandings
of knowledge, rationality, objectivity, and scientific
method? How have social movements sought to chal-
gen traditional modes of knowledge production? P/
NP or letter grading.

104. Bodies. (4) Lecture, three hours. Enforced re-
quise: course 10. Exploration of scholarly theories and histories of body, with focus on topics such as sex
identities, sexuality, gender, and reproduction;
social politics. How has medicine, science, and culture
sought to distinguish male from female in different his-
torical periods and locations? How have meanings of sex and gender varied across time and place?
How has gendered body been represented in different visual cultures? How have embodied identities been
produced in different social and geographic con-
texts? What is relationship between embodiment and desire? P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and
Ethnicity. (4) (Same as Gerontology M104C and
Social Welfare 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.

105. Topics in Women and Medicine. (4) Lecture/
discussion, three hours. Examination of medical condi-
tions and women in context of issues that impact
women’s health, healthcare, and healthcare provid-
ers. Discussion of basic health concepts and self-
care; consideration of a women’s health specialty and ways
to deliver healthcare to women. Exploration of
roles and lifestyles of female physicians. P/NP or
letter grading.

M105A. Premodern Queer Literatures and Cul-
tures. (G). (Same as English M101A and Lesbian,
Gay, Bisexual, and Transgender Studies M101A.)
Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite:
English Composition 3 or 3H. Survey of
discipline period of queer literature and culture
from beginning to circa 1850. Works by such authors as
Sappho, Plato, Marlowe, Shakespeare, and Thom-
as Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105B. Queer Literatures and Cultures, 1850 to
1970. (G) (Formerly numbered Women’s Studies
M101A.) (Same as English M101B and Lesbian,
Gay, Bisexual, and Transgender Studies M101B.) Lecture,
four hours; discussion, one hour (when scheduled). Enforced requisite:
English Composition 3 or 3H. Survey
of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as
Walt Whitman, Rainer Maria Rilke, Stephen Virgini-
a Woof, Langston Hughes, Tennessee Williams,
Henry Blake Fuller, and James Baldwin may be in-
cuded. May be repeated for credit with topic or in-
structor change. P/NP or letter grading.

M105C. Queer Literatures and Cultures after 1970.
(Formerly numbered Women’s Studies M101B.)
(L) (Same as English M101C and Lesbian, Gay,
Bisexual, and Transgender Studies M101C.) Lecture,
four hours; discussion, one hour (when scheduled). En-
forced requisite: English Composition 3 or 3H. Exami-
nation of cultural production, specifically literature,
produced by queers after Stonewall rebellion in New
York in 1969, widely regarded as origins or begin-
ing of modern lesbian and gay rights movement in U.S.
Writings and films by such authors as Andrew Holte-
ran, Leslie Feinberg, Achy Obejas, Essex Humphry,
Audre Lorde, and Cherryl L. Moore may be
included. May be repeated for credit with topic or in-
structor change. P/NP or letter grading.

M106. Studies in Queer Literatures and Cultures.
(L) (Formerly numbered Women’s Studies M101C.)
(L) (Same as English M101D and Lesbian, Gay,
Bisexual, and Transgender Studies M101D.) Lecture,
four hours; discussion, one hour (when scheduled). En-
forced requisite: English Composition 3 or 3H. Var-
iable specialized studies course in queer literatures and
cultures. Topics focus on particular problem or is-
sue in terms of its relationship to queer cultures and
writings. May be repeated for credit with topic or in-
structor change. P/NP or letter grading.

M106. Imaginary Women. (4) (Same as Honors Col-
legium M106.) Seminar, four hours. Designed for ju-
nior/seniors. Study of four female cultural archetypes
— abscinding wife/mother, infanticide mother, in-
tellectual woman, and warrior woman — as they appear
in their classical and modern manifestations in Euro-
pelian, and American cultures. P/NP or letter grading.

M107A. Studies in Women’s Writing. (5) (Formerly
numbered Women’s Studies M107C.) (Same as En-
GLISH M107A.) Lecture, four hours; discussion, one
hour (when scheduled). Enforced requisite:
English Composition 3 or 3H. Focus on written works that
may include historical, regional, national, or thematic
emphasis, with possible topics such as authorship,
self-writing, sexuality, gender, genre. May be re-
peated for credit with topic or instructor change. P/NP
or letter grading.

M107B. Studies in Gender and Sexuality. (5) (Not
same as Women’s Studies M107B prior to Fall Quarter
2011.) (Same as English M107B.) Lecture, four
hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H.
Examination of literary and cultural production through
lens of gender and sexuality. Depending on instructor,
emphasis may be historical, regional, national, com-
parative, or thematic and include other intersectional
topics such as race, identity and gender, such as race
and ethnicity. May be repeated for credit with topic or
instructor change. P/NP or letter grading.

M108. Love and Sex in German Literary Tradition.
(4) (Same as German M108.) Lecture, four
hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H.
Examination of sociocultural history and literary
expression and perception of erotic labor,

M109. Women in Jazz. (4) (Same as Afro-American
Studies M109 and Ethnomusicology M109.) Lecture,
four hours; discussion, one hour. Sociocultural history
of women in jazz and allied musical traditions from
1880s to present. Survey of women vocalists, instru-
mentalists, composers/arrangers, and producers and
their impact on development of jazz. P/NP or letter
grading.

M110C. Philosophical Analysis of Issues in Femi-
nist Theory. (4) (Same as Philosophy M187.) Lec-
ture, three hours. Requisite for Gender Studies ma-
jors; course 10 for other students: one philo-
osophy course. 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 women philosophers to
women in philosophy. Critical study of concepts and
practices that arise in discussion of women’s rights and libera-
tion. Philosophical approach to feminist theories. May
be repeated for credit with consent of instructor. Letter
grading.

M111. Women and Film. (6) (Same as Film and
Television M111.) Lecture, eight hours; discussion,
one hour. Historical issues and critical approaches to
women and cinema that may include authorship, star-
dom, female genres, and images of women in Holly-
wood cinema, alternative cinema, and independent
films from silent era to present. Letter grading.

112. Special Topics in Women and Arts. (4) Lec-
ture, three hours. Requisite: course 10. Selected top-
ics relating feminist theories to creation of art by
women, with consideration of cultural contexts in which
the art was produced. Approach to be comparative, cross-cultur-
al, and interdisciplinary. Consideration of artistic prac-
tice by women in relation to issues of power, repre-
sentation, and access. May be repeated twice, except
for course 111. Requisite: Gender Studies major. P/NP or letter
grading.

113. Sex Work. (4) Lecture, three hours. Enforced
requisite: course 10. Analysis of variety of contempo-
rary sex work both in U.S. and abroad from feminist
perspective. Examination of how race, class, and gen-
der alter experience and perception of erotic labor,
and consideration of critically feminist responses by range of authors to sex work. Topics include brothels, phone sex, tourism, prostitution, legal and illegal, and international traffic in persons. Reading of texts by sex workers, as well as articles from current philosophical and policy debates about prostitution. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (5) Same as Lesbian, Gay, Bisexual, and Transgender Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of gay men, lesbians, 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 Lesbian, Gay, Bisexual, and Transgender Studies M115.) Lecture/discussion, three hours. Requisite: course 10 or M114. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and sex; gay, and/or bisexual issues; variable topics may include women's cultural presentations, 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.

M116. Sexuality and the City: Queer Los Angeles. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M116.) Lecture, three hours. Requisite: course M114. Investigation of history, culture, and political, social, gay, and/or sexual orientations; issues related to various roles, positions, and identities. P/NP or letter grading.

M117. Women and Politics. (4) (Same as Political Science M107.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to 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 military; women, development, and globalization. P/NP or letter grading.

M118. Queering American History. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M118.) Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, and transgender studies course. History of sexual and gender minorities in U.S. society. Topics may include norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

M119. Tristan, Isolde, and History of Heterosexuality. (4) (Same as German M105.) Lecture, three hours. Taught in English. German, French, and English versions of Tristan and Isolde story from Middle Ages to 20th century. Particular attention to relation between representation of heterosexual love in each text and contemporaneous ideas about human sexuality. P/NP or letter grading.

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.

121. Topics in Gender and Disabilities. (4) (Same as Disability Studies M121.) Lecture, three and one half hours. Limited to juniors/seniors. Ways in which issues of disability are affected by gender, with particular attention to various roles, positions, and connections of women with disabilities. Approach is interdisciplinary, exploring how social categories of class, race, ethnicity, religion, age, sexuality, nationality, and citizenship affect and are affected by gender and disability. Topics may include law (civil rights, nondiscrimination), representation (arts, literature), education, public policy, and media. May be repeated for credit with topic and instructor change. P/NP or letter grading.

122. Masculinities. (4) Lecture. Three hours. Enforced requisite: course 10. Masculinity as theorized by feminists and in the public sphere, in Asia and in Latin America. Topics include feminist theories of masculinity, male body, childhood and adolescent socialization, sport, male violence, homophobic, black masculinity, globalization, and social movement responses to masculinities in the 1970s and beyond. Special emphasis on social science approaches and methodologies. P/NP or letter grading.

123. Gender, Race, and Class in Latin American Literature and Film, 1850 to 1950. Seminar, three hours. Requisite: course 10. Readings and discussion in English. Comparative survey of cultural expression in Latin America, with emphasis on works produced or set in late 19th and early 20th centuries. Historical and social circumstances of women in different Latin American cultural contexts, with particular concentration on how gender, sexuality, race, and class are absent and reflected in literature and film. Within this genealogy, examination of how cultural production sustains or interrogates categories used to construct social, political, and cultural hierarchies. Topics include politics of gender and authorship such as women's participation in formation of national cultures, engagement with artistic movements, and strategies of self-figuration. P/NP or letter grading.

125. Perspectives on Women's Health. (4) Lecture/ discussion, three hours. Enforced requisite: course 10. Examination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of healthcare. P/NP or letter grading.

126. Feminist and Queer Theory. (5) (Same as English M126 and Lesbian, Gay, Bisexual, and Transgender Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: one course from 102, 103, 104, English 120, or 121. Investigation of key concepts and debates in study of gender, sexuality, and kinship, with focus on their interrelated significance for making of culture. Readings to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality on specific historical periods. May be repeated for credit with topic or instructor change. P/NP or letter grading.

127. Women in Russian Literature. (4) (Same as Russian M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introductory course for women's writings in Russia and Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Women and Gender in Caribbean. (4) Seminar, three hours. Requisite: course 10. Exploration of way in which gender discourses have been central to making of Caribbean history and to some most enduring experiments in European empire, capitalist development, and coercive labor. Enforced requisite: course 10. Women who lived in three different Caribbean contexts and who continue to live under systems of globalization and neoliberal exploitation. How Caribbean women have historically empowered themselves and their communities, working in various ways to survive, radicalize, and transform their worlds. Ways in which ideas about gender and sexuality have shaped emergence of new nations and national cultures in Caribbean, and consideration of some dominant images of women in public space and popular culture. Exploration of complicated ways in which gender, race, class, and sexuality are negotiated in Caribbean contexts. P/NP or letter grading.

130. Women of Color in the U.S. (4) Lecture/discussion, three hours. Requisite: 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 feminism as defined by women of color. P/NP or letter grading.

132A. Chicana Feminism. (4) (Same as Chicana and Chicano Studies M110.) Lecture, three hours. Enforced requisite: course 10 or Chicana and Chicano Studies 10A. Examination of theories and practices of women who identify as “Chicana feminist.” Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. P/NP or letter grading.

132B. Contemporary Issues among Chicanas. (4) (Same as Chicana and Chicano Studies M154.) Lecture, two and one-half hours. Corequisite: course 10. Overview of conditions facing Chicanas in U.S., including issues on family, immigration, reproduction, employment, and health. Comparative analysis with other Latinas. P/NP or letter grading.


133A-M133B. History of Women in Europe. (4-4) (Same as History M133A-M133B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural roles of women in Western Europe from early Middle Ages to present. P/NP or letter grading.

133C. History of Prostitution. (4) (Same as History M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include toleration of impact of syphilis, birth of courtesan, regulation in 19th-century Europe, white slavery scare, and contemporary global trafficking. Emphasis on theoretical sources, and testimony by sex workers. P/NP or letter grading.


135C. Bilingual Writing Workshop. (4) (Same as Chicana and Chicano Studies M135.) Seminar, four hours. Writing sample required on first day of class; access to course Web page mandatory; need not be offered to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative expression, with focus on specific genre (i.e., autobiography, poetry) and emphasis on themes of gender, and sexuality. Central theme of bilingualism as politics and aesthetics. Peer critique of weekly writing assignments. Letter grading.

136. Music and Gender. (5) (Same as Music History M136.) Lecture, four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, body, and sexuality by both male and female musicians; contributions of
women to Western art and popular 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. Requisite: course 10 or Psychology 10. Designed for seniors. Examination of work behavior of women and men, and their historical evolution, emerging roles in society, job attitudes, job satisfaction, job performance, job mobility, and organizational behavior. P/NP or letter grading.


138. Gender and Popular Culture. (5) Lecture, three hours; screenings, two hours. Limited to juniors/seniors. Conceptual tools and critical skills necessary to rigorously interpret gender politics of popular culture in the U.S. context. Consideration of theories of popular culture and exploration of distinctive power and ideological force exerted by popular culture in American public life. Examination of specific representations of male and female bodies to understand visual vocabulary of gender in popular culture, as well as relationship between visual stereotyping and regimes of power. Consideration of debates concerning transformative potential of pop culture and exploration of capacity and limits of popular culture as agent of social change. Letter grading.


M140. Women's Studies in French Literature. (4) (Same as French M140.) Lecture, three hours. Exploration of some significant cultural issues of contemporary French literature as author, character, symbol, etc. P/NP or letter grading.

142. Race, Gender, and Punishment. (4) Seminar, three hours. Enforced requisite: course 10. Examination of what crisis scholars have called prison industrial complex. U.S. has largest prison population in world. How and why is this? Who is imprisoned? What historical conditions and ideologies gave rise to this massive explosion in prisoner population? Does prison function as regime? How have politicians used imprisonment as response to economic transformations and social disorders? How is current crisis analogous to the historical situation of women in French literature? (Same as French as author, character, symbol, etc. P/NP or letter grading.

CM143. Women Healers, Ritual, and Transformation. (4) (Same as World Arts and Cultures CM143.) Lecture, four hours. Designed for juniors/seniors. Examination of role of women healers, historically and within contemporary culture-specific context. Exploration of psychological functions served by rites of passage and healing rituals and of role of arts in healing. Topics include concurrently scheduled with course CM243. P/NP or letter grading.

M144. Women's Movement in Latin America. (4) (Same as Chicano and Chicano Studies M144 and Labor and Workplace Studies M144.) Lecture, four hours. Course considers new social movements and women in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of forms of feminism and women's consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organization, and other movements and that are concerned with race, sexuality, feminism, and human rights. Through comparative study of women's movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women's resistance, as well as major debates in field of study. P/NP or letter grading.

M145. Feminist Geography. (4) (Same as Geography M145.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. Gender as spatial process, analysis of feminist geographic theory and methods, landscape and gender, gender and cartography, gender and conceptual frameworks. Spaces of femininity, masculinity, and sexuality. P/NP or 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. Requisite: 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 gender studies to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociocultural context. P/NP or letter grading.

M147B. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) (Same as History M147C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of early American women. Examination of English and American Indian cultures in early 17th century to rise of women's rights movement in mid-19th century. P/NP or letter grading.

M147C. Transnational Women in Activism in America and Mexico, 1500 to 2000. (4) (Same as Chicano and Chicana Studies M147A, Women's Studies M147A.) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globalization and essential to economic and political struggles encompassed in transnational power relations. Exploration of how questions of race and gender influence global economic policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of process of accelerated globalization has been linked to feminization of labor and migration, environmental destruction, environmental migrations of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization and cultural, social, and political responses encompassed by transnational organizing. P/NP or letter grading.

M147D. History of Women in U.S., 1860 to 1980. (4) (Same as History M147D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of American women from abolition of slavery and Civil War to rise and consequences of second-wave feminism. P/NP or letter grading.

M148. Women in Higher Education. (4) (Same as Education M148.) Seminar, three hours. Designed for juniors/seniors. Overview of issues related to experience of women in higher education. Topics include curricular transformation, feminist pedagogy, gender equity, women faculty members, and intersection of gender and race. Letter grading.

M153A. Gender, Race, Class, and Sexuality. (5) (Same as Communication Studies M154 and Labor and Workplace Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture induces people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, classes, and other subaltern or subordinated groups are presented and often represented in media, and the employment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, mass presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.


M155. Women's Voices: Their Critique of Anthropology of Japan. (4) (Same as Anthropology M155.) Lecture, three hours. Preparation: introductory socio-cultural anthropology course. The anthropology of Japan has been viewed as an homogeneous whole. Restoration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

M155Q. Women and Social Movements. (4) (Same as Anthropology M155Q.) Lecture/discussion, three hours. Recommended preparation: prior gender studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/ reform), beginning with Russia and China and including Cuba, Algeria, Guinea-Bissau, Mozambique, Nicaragua, and Iran. Analysis of women's participation in and challenge to social movements, political and transnational arenas, students gain understanding of curricular transformation, feminist pedagogy, gender equity, women faculty members, and intersection of gender and race. Letter grading.

M157. Chicana Historiography. (4) (Same as Chicano and Chicano Studies M157 and History M151D.) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history has placed Chicanas into particular narratives.
Using Chicana feminist approaches to study of histo-
re, revisiting of specific historical periods and mo-
ments, such as the Mexican Conquest, Mexican Rev-
olution, and Chica-
no Movement to excavate untold stories about wom-
men’s participation in and contribution to making of Chi-
cana and Chicano history. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) (Same as Italian M158.) Lecture, three hours; discus-
sion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths of Pandora and Adam and Eve, cultural condi-
tions of women in Italian society through history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.

M162. Sociology of Gender. (4) (Same as Sociology M162.) Lecture, three hours; discussion, one hour. Requisite: course 10 or Sociology 1. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender rela-
tions in modern industrial societies. P/NP or letter grading.

M160. Gender and Work. (4) (Same as Sociology M163.) 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.

M164A. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Asian American Studies M164.) Lecture, four hours. Study of various forms of violence done on women not only in and of themselves but in light of larger sys-
tems of oppression, with focus on Pilipino, Vietnam-
ese, Singaporean, and South Asian cultures. Letter grading.

M165. Psychology of Gender. (4) (Same as Psychol-
y M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding con-
temporary sex differences. Topics include sex-role development, cognitive conflict, physiological and so-
ciality 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; discussion, one hour. Exploration of diverse aspects of women’s lives in socialist and post-socialist states. Although transition from socialism occurs dif-
ferently, gender differences are everywhere central to democ-
ratization and marketization. Discussion of ways in which state policies affect women. Letter grading.

M167. Contested Sexualities. (4) (Same as Lesbi-
an, Gay, Bisexual, and Transgender Studies M167.) Lecture, three hours; discussion, one hour. Sociologi-
cal perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contested identities as affecting contemporary identities. Letter grading.

ment experiences in globalizing world economy. Overview of gender inequalities such as gender divi-
sion of labor in paid and unpaid work; patterns of em-
ployment and unemployment, and wage gaps be-
tween men and women in different world economy re-
gions; feminist critiques of economics and of theoreti-
cal debates within gender and development field on topics such as traditional household, gender divi-
sion of labor force, and poverty; examination of ef-
forts and proposals by governments, international pol-
icy-making institutions, and civil society organizations to make economic policies and structures gender-eq-
uitable. P/NP or letter grading.

CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Formerly numbered Honors M170.) (Same as Com-
parative Literature CM170.) Seminar, three hours. De-
sign for upper division literature majors. Investiga-
tion of narrative texts by contemporary French, Ger-
man, English, American, Spanish American, African, and Asian women writers from cross-cultural perspec-

CM170C. History of Women in China, A.D. 1000 to Present. (4) (Same as History M170C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family life in Classical, Confucian, women in the In-
ner cult ure, feminist movement, and women and commu-
nist revolution. P/NP or letter grading.

171A. Women, Gender, and Law: Jurisprudence of Sexual Equality. (4) (Same as Legal Studies M171A.) Requisite: course 10 or Principles 6 or 9. Recommended: course 110A or 110B or M110C. Ex-
ploration of models of equality described and/or advoca-
ted by legal theorists primarily in the U.S. — equali-
ty of opportunity, equality of outcome, equality of re-
spect, etc. — using specific problems of women (e.g., sexual harassment, pregnancy leave policy, access to safe and effective reproductive control technologies) for purposes of comparison and critique. Specific fo-
cus may vary by instructor (e.g., consideration of sex-
ual equality theories to issues of gender equality, legal status of women's domestics outside the U.S. or from perspec-
tives of international human rights). May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as Afro-American Studies M172 and Psychology M172.) Lecture, two and one-half hours. Designed for junior/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal rela-
tionships of Afro-American women as members of large social and as members of their biological and ethnic group. P/NP or letter grading.

M173B. Women in 20th-Century Japan. (4) (Same as History M173B.) Lecture, three hours; discussion, one hour. Designed for juniors/sen-
iors. Japanese women in Japanese and world histo-
ry through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as women and new po-
itical order (1900 to 1930), women, war, and empire (1930 to 1945), and women in consumer society (1980s to 1990s). P/NP or letter grading.

M174. Sociology of Family. (4) (Same as Sociology, M174,) Lecture, three hours; discussion, one hour. Theory and research dealing with modern family, its structure, and functions, including historical changes, variant family patterns, family as institution, and func-
tion of contemporary society on family. P/NP or letter grading.

M175. Women and Cities. (4) (Same as Urban Plan-
ing M175.) Lecture, three hours. Limited to junior/sen-
iors. Examination of relationship between women and cities: (1) how cities have affected women’s op-
portunities for economic and social equality, (2) wom-
men’s contributions to development of U.S. cities, and (3) contemporary efforts to cre-
date environments that reflect women’s needs and in-
terests. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Ed-
ucation CM178.) Lecture, two and one-half hours. Corequisite: course CM178L. Use of range of pedagogical ap-
proaches to theory and practice of critical media liter-
acy 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 liter.

CM178L. Critical Media Literacy and Politics of Gender: Production. (4) (Same as Education CM178L.) Clinic, four hours. Concurrently sched-
uled with course CM278L. Letter grading.

M180B. Historical Perspectives on Gender and Science. (Same as Sociology M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrat-
ing how gender enters practices and concepts of sci-
tific topics include gendered conceptions of nature, persona of man of science, role of women in scientific revolution, scientific investigations of women and fem-
inine. P/NP or letter grading.

185. Special Topics in Women’s Studies. (4) Lec-
ture, three hours. Preparation: one prior women stud-
ies course. Designed for juniors/seniors. Specialized or advanced study in one area within gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M186. Voices of Women in Nordic Literature. (4) (Same as Scandinavian CM144A.) Seminar, three hours. Requisite: Scandinavian 5 or 15 or 25. Knowl-
edge of Scandinavian languages required for non-
majors. Readings and discussion of writings by Scandinavian women writers analyzed in historical, theoretical, sociological, critical, and comparative con-
texts. P/NP or letter grading.

M186A. Global Feminism, 1850 to Present. (4) (Same as History M187A.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
iors/seniors. Introduction to movements for women’s (educational, political, economic, and reproductive) around world and over one and one-half centu-
ries. P/NP or letter grading.

187. Senior Research Seminar: Women’s Studies. (4) Seminar, three hours. Requisites: courses 10, and 110A or 110B or M110C. Designed for advanced ju-
ior/senior Gender Studies majors or minors. In-depth study of major theme in feminist research. Themes vary by instructor and term. Students pursue indepen-
dent research related to course theme, with guidance from instructor, then share and critique other students work in progress. Letter grading.

M191D. Topics in Queer Literatures and Cultures. (5) (Same as English M191D, and Gender and Sexuality, and Transgender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Com-
mposition 3 or 3H. Consult Schedule of Classes for au-
term, period, genre, or credit, if not scheduled in specific term. May be repeated for credit with topic or instruc-
tor change. P/NP or letter grading.

M191E. Topics in Gender and Sexuality. (5) (Same as English M191E and Lesbian, Gay, Bisexual, and Transgender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Com-
mposition 3 or 3H. Consult Schedule of Classes for au-
term, period, genre, or credit, if not scheduled in specific term. May be repeated for credit with topic or instruc-
tor change. P/NP or letter grading.

195. Community or Corporate Internships in Women’s Studies. (2 or 4) Tutorial, eight hours. Requisites: course 110A or 110B or M110C, or two upper division gender studies courses not in 189 to 199 series. Limited to juniors/seniors. Internship in su-
 pervised setting in community agency, organization, or business approved by program. Content of student or apply generally to electives on some aspect of women’s studies. Students meet on reg-
ular basis with instructor; provide periodic reports on their experiences, and submit final report. Must be taken for 4 letter-graded units to be applied toward Gender Studies major or minor. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or let-
ter grading.
197. Individual Studies in Women's Studies. (4) Tutorial, four hours. Preparation: at least two upper division women's studies courses. Requisite: course 210A or 210B or M211C. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Content may include the following: feminist discourse, application, activism, or other feminist theoretical perspectives to disciplinary field, or emerging areas of inquiry. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

198A-198B-198C. Honors Research in Women's Studies. (4-4-4) Tutorial, four hours. Limited to junior/senior gender studies honors program students. Three-term sequence to research and write honors thesis under direct supervision of faculty sponsor and in consultation with faculty cosponsor. Individual contract required. 198A. Requisite: course 187. Letter grading. 198B. Requisite: course 198A. In Progress grading (credit to be given only on completion of course 198C). 198C. Requisites: courses 198A, 198B. Letter grading.

199. Directed Research in Women's Studies. (2 or 4) Tutorial, to be arranged. Preparation: at least two upper division gender studies courses, minimum 3.0 grade-point average. Requisite: course 110A or 110B or M110C. Limited to junior/senior Gender Studies majors and newly admitted terminal-year students in individual research in investigation under guidance of faculty mentor on specific topic within gender studies. Culuminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Feminist Knowledge Production: Early/Modern. (4) Lecture/discussion, three hours. Examination of early and modernist feminist theories and epistemologies in context of global flows of people, ideas, and goods. (Same as Sociology M252.) Lecture, two hours. Preparation: at least two upper division social science courses. Evaluation of various forms of feminist knowledge production and multicultural critiques of theories of modernity. Letter grading.


203. Research Methods in Studies of Women and Gender. (4) Seminar, three hours. Preparation: prior or concurrent enrollment in graduate research methods course in discipline or focus area, one or more undergraduate or graduate courses in gender studies. Requisites: courses 201, 202. Topics in advanced critique of sexist research methods, models of inclusion of women in research and theory, nonsexist research methods from conception through interpretation, what constitutes feminist research, inclusiveness and attention to diversity issues, appropriate frameworks in comparative research. Supplementary disciplinary offerings on research methods. Letter grading.

204. Current Research in Women's Studies. (1) Seminar, to be arranged. Designed for graduate students in any discipline conducting research on women or gender and sexuality and participation in Feminist Research Seminar sponsored by Center for Study of Women; presentations in interdisciplinary women's studies research and theory, with their significance and methodology discussed and critiqued in depth. May be repeated for credit. S/U grading.

205. Gender and Politics of Information. (4) Seminar, three hours. Designed for graduate students. Examination of technologies and information environments embedded in information 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 who "owns" information technology resources; race, class, gender relations in cyberspace and electronic communities; the role of feminist theory in understanding the intersection of systems of gender, economy, ideology, and culture, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Designed for graduate gender studies students. Introduction to background, decision-making processes, and current debates of public policy affecting women in one or more major spheres of public life (e.g., work, family, political system, healthcare, legal regulation). Topics may focus on public health, political science, medicine, workplace, aging, 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 research on sexuality. Examination of current American feminist theory related to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent "antifeminist" feminists. Discussion of directions for future feminist sociology. Letter grading.

220. Cultural Studies in Gender, Race, and Sexuality. (4) Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in 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 formation. Letter grading.

238. Feminist Theory. (4) (Same as Sociology M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent "antifeminist" feminists. Discussion of directions for future feminist sociology. Letter grading.


252. Selected Topics in Sociology of Gender. (4) (Same as Sociology M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected, recent and current topics of gender. May be repeated for credit. Letter grading.

253A. Seminar: Current Problems in Comparative Education. (4) (Same as Education M253A.) Seminar, four hours. Examination of most influential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

255. Cross-Cultural Perspectives on Gender. (4) (Same as Sociology M255.) Seminar, three hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or united feminist movements possible or is gender too different cross-cultural? S/ U or letter grading.

259A-259B. History of Women. (4-4) (Same as History M259A and M259B.) Seminar, three hours. Course M259A is requisite to M259B. History of women's social and political issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

261. Music and Gender in Cross-Cultural Perspective. (4) (Same as Ethnomusicology M261.) Seminar, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics include the anthropology of gender and sexuality, deconstruction of messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

263P. Gender Systems. (4) (Same as Anthropology M263P.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationships between systems of gender, economy, ideological systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

266. Feminist Theory and Social Sciences Research. (4) (Same as Education M266.) Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social theories and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


270L. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education M270L.) Seminar, three hours. Corequisite: course CM270L. Use of critical 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.

278. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Education CM278L.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course 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.

296. Doctoral Roundtable. (2) Research group meeting and research meeting. Preparation: satisfaction of comprehensive examination, successful completion of Ph.D. program first year. Requisites: at least two courses from 201, 202, 203, 210. Limited to program Ph.D. students. Interactive seminar with focus on development of research and scholarly writing, feminist scholarship, research presentation, and professional development. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Apprenticeship. (4) Seminar, two hours. Preparation: appointment as teaching assistant in department. Introduction to feminist methods of teaching, with emphasis on reciprocity and dialogue and de-emphasis on hierarchy. Required of students while serving as teaching assistants and continuous enrollment in undergraduate gender studies courses. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203, 210. Directed individual study in any area related to women's studies/gender studies, arranged individually by student with instructor. May be repeated for credit. S/U or letter grading.
597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, eight hours. Limited to graduate students. Reading and preparation for written M.A. comprehensive examination or Ph.D. qualifying field examinations. May be repeated for a maximum of 12 units. S/U grading.


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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 broad background in the field with specific tracks. The Geography/Environmental Studies major focuses on the impact of humans on the natural environment. Also offered are undergraduate minors in Geography, Geography/Environmental Studies, and Geospatial Information Systems and Technologies.

The department also offers M.A. and Ph.D. degrees. Student research projects are conducted in collaboration with a faculty adviser and advisory committee. Graduate students work in most major areas of geography and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

Undergraduate Study
Geography B.A.

The Geography major allows students to combine a broad background in the field with more specific interests and career goals. Students can select classes in several areas of geography such as urban, economic, cultural, environmental, physical, or biogeography. They should consult with the undergraduate adviser to plan a program suitable to their personal objectives.

Preparation for the Major
Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4, and 5. Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the Geography major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, and one statistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven upper division geography courses (44 units minimum), each taken for a letter grade.

Geography/Environmental Studies B.A.

The major in Geography/Environmental Studies develops and deepens students' understanding of environmental issues; it explores problem-solving approaches from an interactive people/nature viewpoint and involves analysis of social, physical, and biotic environmental systems. The major's uniqueness lies in its emphasis on its geographical perspective of human impacts on natural systems, as well as on implications of global change on local and regional human systems.

Preparation for the Major
Required: Geography 1 or 2, 3 or 4 or 6, 5, and Statistics 12. Each course must be taken for a letter grade. Students are strongly advised to complete all preparation for the major courses before beginning upper division work in the major.

Transfer Students
Transfer applicants to the Geography/Environmental Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, one people and ecosystems course, and one statistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.
The Major

Required: Eleven upper division geography courses, each taken for a letter grade, that must be distributed as follows: (1) natural systems core — two courses from 100, 101, 102, 103, 104, 105, 108, 111, 112, M127; (2) human systems core — two courses from 118, 133, 134, 138, 140, 142, M146, 147, 148, 150, 151, M153, 155, 159A; (3) environmental studies cluster — four courses from M106, M107, M109, 110, 113, 114, M115, 116, 120, 121, 122, 123, 124, 125, 126, M127, M128, 129, M131, 132, 135, 136, M137, 159C, 159D, 159E; (4) procedures — two courses (8 units) from 100A (2 units), 101A (2 units), 105A (2 units), 102, 103, 106, 107, 112, 113, 114, M115, 116, 120, 121, 122, 123, 124, 125, 126, M127, M128, 129, M131, 132, 135, 136, M137, 159C, 159D, 159E; (5) regions — one course from 136, 139, 152, 156, 158, 180, 181, 182A, 182B, 183, 184, 185, 186, 187. Each course must be taken for a letter grade.

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 upper division geography courses and a 3.0 overall GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s). Contact the undergraduate advising office for further information.

Geography Minor

The Geography minor is designed for students who wish to deepen and/or broaden their major program of study with a distinctive yet flexible program of courses encompassing the relationship between environment and society. The minor allows students to develop a coherent strategy for understanding and explaining the manner in which people and the Earth interact. Students have the opportunity to explore the origins, development, morphology, and processes of landscapes inherited from nature, as well as those institutions and cultural, economic, political, and social patterns associated with the human development, occupancy, organization, perception, and use of these landscapes.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Geography Department Advising Office, 1255 Bunche Hall, (310) 825-1166. Students should be selected in consultation with the departmental adviser.

Required Lower Division Courses (10 units): Two courses from Geography 1, 2, 3, 4, 6. It is recommended that students take these courses before attempting upper division courses.

Required Upper Division Courses (20 units): Any five upper division geography courses.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than 8 units may be applied toward both this minor and a major or minor in another department or program, and at least three of the five upper division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval. Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Geography/Environmental Studies Minor

The Geography/Environmental Studies minor is intended for students interested in environmental issues and emphasizes a systems approach to gaining a causal understanding of major environmental problems facing our society and the world at large. The uniqueness of the minor lies in its geographical perspective on the impact, at various geographical scales, of human activity on natural systems and on the implications of global environmental change on local, regional, and global human systems.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Geography Department Advising Office, 1255 Bunche Hall, (310) 825-1166. Courses should be selected in consultation with the departmental adviser.

Required Lower Division Courses (10 units): Geography 5 and one course from 1, 2, 3, 4, or 6. It is recommended that students take these courses before attempting upper division courses.

Required Upper Division Courses (20 units): Three courses from the environmental studies cluster specified within the major and two geography courses from outside the environmental studies cluster.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than 8 units may be applied toward both this minor and a major or minor in another department or program, and at least three of the five upper division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval. Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), 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 landscapes and how these have been shaped and been shaped by connections between societies and their natural environments. Examples from variety of landscapes and places since 1800 and especially from Los Angeles region. P/NP or letter grading.
4. Globalization: Regional Development and World Economy. (5) Lecture, three hours; discussion, two. Prerequisites: course 1A and course 1B. Study of the exploration and distribution of all forms of human productive activity at a number of geographical scales — local, regional, national, and global. Key theme is the 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.

6. World Regions: Concepts and Contemporary Issues. (5) Lecture, three hours; discussion, two hours. Interdisciplinary and historical approach to modern peoples, their differences in wealth or poverty, and their local origins of food production. Brief introduction to physical geography and biogeography of each region. Discussion of each region’s peoples, languages, foods, prehistories, and histories. P/NP or letter grading.

7. Introduction to Geographic Information Systems. (5) Formerly numbered 168.) Lecture, three hours; laboratory, two hours. Designed for freshmen/sophomores. Introduction to fundamental principles and methods for carrying out geospatial and geographic analysis with geographic information systems (GIS). Reinforcement of key ideas in GIS, such as geographic coordinate systems, map projections, spatial analysis, and visualization of spatial data. Laboratory exercises use database query, manipulation, and spatial analysis to address real-world problems. P/NP or letter grading.

88A-88Z. Land Division Seminars: Geography. (4 each) Discussion, three hours; reading period, one hour. Seminar designed to explore various themes and issues pertinent to environment and people. Seminar topics advertised in department during previous term. P/NP or letter grading.


Upper Division Courses

100. Principles of Geomorphology. (4) Lecture, three hours; reading period, one hour. Prerequisite: course 1. Study of processes and landforms through investigation of processes that shape the world’s landforms, with emphasis on weathering, mass movement and fluval erosion, transport, deposition; energy and material transfer; space and time considerations.

100A. Principles of Geomorphology: Field and Laboratory. (2) Laboratory/fieldwork, six hours. Corequisite: course 100. Field and laboratory investigations of weathering, mass movement, fluval erosion, transport, deposition; related geomorphic phenomena. P/NP or letter grading.

101. Coastal Geomorphology. (4) Lecture, three hours; reading period, one hour. Prerequisite: course 1. Requisite: course 100A. Study of origin and development of coastal landforms, emphasizing past and present changes, hydrodynamic processes, sediment transfer, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, seacliffs, and coral reefs, together with coastal zone management. P/NP or letter grading.

101A. Coastal Geomorphology: Field and Laboratory. (2) Laboratory/fieldwork, six hours. Corequisite: course 100. Field and laboratory investigations of coastal landforms, emphasizing past and present changes, hydrodynamic processes, sediment transfer, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, seacliffs, and coral reefs, together with coastal zone management.

102. Tropical Climatology. (4) Lecture, three hours. In-depth exploration of development of tropical climate, with special reference to hurricanes, ENSO, and monsoons and human interaction with tropical climate processes and human-induced climate change in tropicals. Use of climatological information to foster sound environmental management of climate-related resources in tropics. P/NP or letter grading.

103. Paleoclimatology and Ice-Age Environments. (4) Lecture, three hours; discussion, one hour. Requisites: course 101 and course 102. Examination of past climates and their environmental impact, with emphasis on the last three million years, including evidence for glacial and interglacial oscillations, historic changes, paleogeographic reconstructions, and global forcing mechanisms, and human implications. P/NP or letter grading.

104. Climatology. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of the many relations between climate and the world of man. Application of basic energy budget concepts to the microclimates of relevance to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.


105A. Hydrology: Field and Laboratory. (4) Lecture, three hours. Corequisite: course 105. Field and laboratory investigations into role of water in geographic systems: hydrologic phenomena in relation to climate, landforms, soils, vegetation, and cultural processes and impacts on the landscape. Students solve applied hydrology problems in laboratory and make hydrologic measurements in the field.

M106. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) (Same as Atmospheric and Oceanic Sciences M106.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

M107. Soil and Water Conservation. (4) (Same as Environment M114.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Systematic study of soils, erosion, soil formation, and surface processes and land uses and human impact on soils. P/NP or letter grading.


109. Human Impact on Biophysical Environment: What Science Has Learned. (4) (Same as Environment M109.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.

110. Population and Natural Resources. (4) Lecture, three hours; laboratory, two hours. Designed for juniors/seniors. Examination of debate about environmental change and ability of the planet to maintain a growing population. Introduction to analysis of demographic issues and sources in context of food production, energy use, and environmental degradation. Discussion of major debates about use of resources in context of increasing population in developing countries and decreasing population in Western countries. P/NP or letter grading.

111. Forest Ecosystems. (4) Lecture, three hours; field trips. Requisite: course 2 or Life Sciences 1. Designed for juniors/seniors. Examination of ecological principles as they apply to forests. Emphasis on constraints of physical environment, biotic interactions, succession, disturbances, and long-term environmental change. P/NP or letter grading.


113. Humid Tropics. (4) Lecture, three hours. Requisite: course 2 or 5 or Life Sciences 1. Designed for juniors/seniors. Examination of humid tropics, with emphasis on rainforests, their ecological principles, and forms of land use. Letter grading.


M115. Environmentalism: Past, Present, and Future. (4) (Same as Environment M132 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental issues and movements, and the interrelationships and interactions between them. Letter grading.

M117. Ecosystem Ecology. (4) (Same as Ecology and Evolutionary Biology M131.) Lecture, three hours; field trips. Requisites: courses 1, 2, or Life Sciences 1. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energetics, population dynamics, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

118. Medical Geography. (4) Lecture, three hours; reading period, one hour. Prerequisite: course 1 or 2 or 5. Examination of theories and examples of invasion of new environments by plants and animals introduced through natural processes or by human activity. P/NP or letter grading.

M119. Ecosystem Sociology. (4) (Same as Ecology and Evolutionary Biology M131.) Lecture, three hours; field trips. Requisites: courses 1, 2, or Life Sciences 1. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energetics, population dynamics, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

119. Biophysical and Social Transformations in Northern Regions. (4) Lecture, three hours. Enforced requisite: course 5. Substantial transformation of world’s northern high latitudes due to climate change, natural resource development, and key demographic trends in 21st century. Climate models project rising mean air temperatures and precipitation, and less sea-ice cover in Arctic Ocean, consistent with field observation of increased runoff, shrinking glaciers, and thawing permafrost. Ability of northern societies to react to these phenomena is shaped by new legal frameworks, like aboriginal land claims agreements. Development in North America, Europe, and economics, like oil and gas industry in West Siberia. Eight northern countries (including U.S.) face array of challenges and opportunities ranging from species extinctions, increased viable species, and increased viability. Major cities like Vancouver and Helsinki are becoming highly desired places to live, emigrate, and work. Blending of

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120. Conservation of Resources: North America. (4) Lecture, three hours. Designed for juniors/seniors. Analysis of basic principles and problems associated with conservation of natural resources in the U.S. and Canada. Prerequisite: BIO 127 and Environment M127. Soils and Environment. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Examination of past geographies and of geographical development, fates, as background to examination of how modern state societies are coping or failing to cope with similar issues. 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 ex- amined from a geographical perspective, with exam- ples from both developed and developing countries. P/NP or letter grading.


M127. Soils and Environment. (4) Same as Ecolo- gy and Environment M127 and Environment M127.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmen- tal implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemi- cal, hydrological, and biological properties; water use, erosion, and pollution; management of soils as relat- ed to plant growth and distribution. P/NP or letter grading.


129. Seminar: Environmental Studies. (4) Semi- nar, three hours; reading period, two hours. Prepura- tion: one of BIO 127 or (Same as Anthropology M1580 and Honors Collegium M152.) Lecture, two hours; discus- sion, two hours. Examination of modern and past trib- al and band societies (Amazonian Indians, Kalahari San, Australian Aborigines, and North American Indian tribes, as background to examination of how modern state societies are coping or failing to cope with similar issues. P/NP or letter grading.

130. Geographical Discovery and Exploration. (4) Lecture, three hours; reading period, one hour. Requi- sites: courses 1, 3. Designed for juniors/seniors. Survey of exploration, from earliest times to modern, with emphasis on period from Marco Polo to the present.

M131. Environmental Change. (4) (Formerly num- bered 131.) (Same as Environment M130.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces produc- ing environmental changes over past two million years. How present landscape reflects past con- ditions. Effects of environmental change on people. In- creasing importance of human activity in environmen- tal modification. Focus on impact of natural and an- thropogenic 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 Modern World. (4) Lecture, three hours; reading period, one hour. De- signed for juniors/grad students. Historical and cultural and structural approach to cultural geography of modern world system, with particular emphasis on structure and functioning of its core, semi-periphery, and peripheral P/NP or letter grading.


M137. Historical Geography of American Environ- ment. (4) (Same as Environment M137.) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes in environment in U.S. during historical time, with emphasis on interplay between and among natural factors of climate, soils, vegetation, and landforms, and human factors of settle- ment, economic activity, technology, and cultural traits. P/NP or letter grading.

138. Place, Identity, and Networked World. (4) Lect- ure, three hours; reading period, one hour. Commu- nications technologies, such as personal computers and Internet, seem to be connected to dramatic and far-reaching social issues. P/NP or letter grading.

139. Japan in World: Culture, Place, and Global Connections. (4) Lecture, three hours; reading peri- od, one hour. Focus on questions of culture and place in Japan. Exploration of ways that these questions — and related issues — are shaped by historical and contemporary interactions involving people in both Japan and other parts of world. P/NP or letter grading.

140. Political Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/se- niors. Spatiality of political activity, spatial constitution of political power, control over space as central com- ponent to political struggles. Studies at local, national, state, and global scales. 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, migration, and mobility, with special empha- sis on spatial relationships and selected case studies. P/NP or letter grading.

143. Ethnicity in the American City. (4) Lecture, three hours; reading period, two hours. Limited to ju- niors/seniors. Designed to encourage and facilitate critical thinking about geographical aspects of ethnici- ties. Exploration of contemporary American city with focus on self-reflective study of the sociocultural aspects to explain changing distribution, social, eco- nomic, and political behavior, and adjustment prob- lems ethnic groups face in contemporary American cities. P/NP or letter grading.

145. Landscape and American Dreams. (4) Lect- ure, three hours; one-half-day field trip. Introduction to concepts, methods, and skills of landscape study in cultural and historical geography through reflections on cultural landscapes and their representation in Eu- rope, the U.S., and California. Survey of specific con- cept or method of landscape study each week, with detailed discussion of its expression in American and Canadian geographic literature. P/NP or letter grading.

M146. Feminist Geography. (4) (Same as Gender Studies M146.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. Gender as spatial process, analy- sis of feminist geographic methodologies. Focus on cen- ters of gender, challenges of representing gender. Spaces of femininity, masculinity, and sexuality. P/NP or letter grading.

147. Social Geography. (4) Lecture, three hours; dis- cussion, one hour. Study of spatiality of social differ- ences such as race, class, gender, age, sexuality, location. Critical explorations of identity, social categori- es, and spatial structures. Importance of space and place in social life. P/NP or letter grading.


M149. Transportation Geography. (4) (Same as Ur- ban Planning M150.) Lecture, three hours. Requisite: course 3 or 4. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transport. P/NP or letter grading.

150. Urban Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/se- niors. Analysis of development, functions, spatial pat- terns, and geographic problems of cities. P/NP or letter grading.


152. Cities of Europe. (4) Lecture, three hours; read- ing period, one hour. Designed for juniors/seniors. Urbanization of Europe, growth of city systems and in- ternal spatial structure, functions, and geographic problems of contemporary European cities. Particular attention to historical development and landscapes of capital cities such as Rome, Paris, and Berlin. P/NP or letter grading.

M153. Past Societies and Their Lessons for Our Own. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Urbanization of Europe, growth of city systems and internal spatial structure, functions, and geographic problems of contemporary European cities. Particular attention to historical development and landscapes of capital cities such as Rome, Paris, and Berlin. P/NP or letter grading.
154. Images of Earth: World from Above. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of how Earth has been represented through ages, how they have been influenced by current ideas and, in turn, how they have themselves influenced course of events. P/NP or letter grading.

155. Industrial Location and Regional Development. (4) Lecture, two hours; laboratory, four hours. Enforced prerequisite: course 5. Course study of ecological and economic processes of urban redevelopment whereby built environment results from interplay between competing visions of city. Use of maps, charts, diagrams, and interpretation of physical phenomena pertinent to natural, biotic, and cultural environment. May be repeated for credit with topic change. P/NP 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.


158. Korean Urban Experience. (4) Lecture, three hours; laboratory, one hour. Enforced prerequisite: course 5. Course study of Seoul, South Korea, along with other cities in both Korea and overseas where Korean diaspora resides. Korean experience to be juxtaposed against responses by other cities of world to similar challenges. Geography of housing and associated processes of urban redevelopment whereby built environment is continually being reproduced and transformed. Current urban debates, as well as topics showing interplay between competing visions of city. P/NP or letter grading.

159A-159E. Problems in Geography. (4 each) Discussion, three hours; reading period, one hour. Preparation: completion of three courses in a concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from work in other courses. 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.

162. Glacier Environments of California's High Sierra. (4) Fieldwork, 10 hours; discussion, four hours. Introduction to alpine glacial environment through three days of introductory lecture followed by intensive seven-day field trip to California's High Sierra. Students carry out laboratory exercises, as well as data collection for research projects designed around their individual interests. Presentation of additional evening lectures, using presentation facilities at Sierra Nevada Aquatic Research Laboratory (SNARL). Offered in summer only. P/NP or letter grading.

163. Field Analysis in Biogeography. (4) Fieldwork, eight hours. Requisites: courses 2, 5, 108, 112. Examination of field procedures and intellectual concepts used in field work, measurement, analysis, and interpretation of phenomena pertinent to biogeography and interrelated human influences. P/NP or letter grading.

166. Environmental Modeling. (4) Lecture, one hour; laboratory, two hours. Presentation of basic concepts related to computer modeling of biogeochemical cycles, geomorphic processes, and other phenomena relevant to changing Earth and its inhabitants. Laboratory exercises include building basic computer models and working with existing models. P/NP or letter grading.


170. Advanced Geographic Information Systems. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 168. Introduction to full geographic information systems (GIS) functionality, using ARC/INFO on UNIX workstations. Use of maps and other geographic phenomena to carry out remote sensing, geostatistical, and change detection schemes. Reinforcement of procedures presented in lecture with laboratory exercises and student project. P/NP or letter grading.

173. Geographic Information Systems Programming and Development. (4) Lecture, two hours; laboratory, two hours. Enforced prerequisite: course 168. Introduction to fundamental concepts and architecture of programming objects in widely used geographic information systems (GIS), and programming in GIS environment. Topics centered on GIS customization and development using variety of programming languages. Lectures followed by laboratory exercises. P/NP or letter grading.

177. Field Methods in Physical Geography. (5) Lecture, three hours; laboratory, three hours. Not open for credit to students with credit for course M127. Examination of field procedures and concepts used in observation, measurement, analysis, and interpretation of physical phenomena pertinent to natural and cultural environments. May vary from year to year and may include soils, geomorphology, and field methods in geographic information science. May be repeated for credit with topic change. P/NP or letter grading.

Regions

180. North America. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Regional synthesis with varying emphasis on landscapes, resources, and socioeconomic 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.

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.

186. Contemporary China. (4) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Systematic attention to geographic processes of China, including physical, cultural, and economic aspects and detailed studies of various regions. P/NP or letter grading.

185. South and Southeast Asia. (4) Lecture, three hours; reading period, one hour. Designed for 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.

189A. Natural Hazards/Earthquakes (Same as Earth Sciences M189A.) Seminar, two hours; research group meeting, two hours. Enforced requisite: supervised setting in community agency or business. May be repeated for credit with topic change. P/NP grading.

194. Research Group Seminars: Geography. (2) Seminar, two hours; research group meeting, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of or research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

C194A. Research Group Seminars: Controversies in Earth System Science. (1) Seminar, two hours. Designed for undergraduate students who are part of research group. Biweekly seminar to discuss emerging issues and controversies in earth system science. Topics include oscillatory climate phenomena, biogeochemical cycling, biocomplexity, land/atmosphere interactions, paleoclimate, and human-induced environmental change. May be repeated for credit. Concurrently scheduled with course C296A. P/NP grading.

195. Community or Corporate Internships in Geography. (4) Tutorial, four hours. Limited to juniors/seniors. Internship of eight to 10 hours per week in supervised setting in community agency or business. Students meet on regular basis with instructor and

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provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. 2018A-198B. Honors Research 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 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of one or two faculty members. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to juniors with B average in major or seniors. May be repeated for maximum of 16 units. P/ NP or letter grading.

Graduate Courses

Environment

200. History and Paradigms of Geomorphology. (4) Lecture, two hours; discussion, one hour; reading period, eight hours. Preparation: two courses from 101, 103, 105, M107. Requisite: 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 historical setting.

201. Coastal Geomorphology Seminar. (4) Seminar, three hours; reading period, five hours; fieldwork. Requisites: courses 100, 101. Discussion of selected topics pertaining to geomorphic processes and responses observable in coastal zone. May be repeated for credit. S/U or letter grading.

202. Fluvial Geomorphology Seminar. (4) Seminar, 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 shaping physical landscape. May be repeated for credit. S/U or letter grading.

203. Glacial Geomorphology Seminar. (4) Seminar, 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. S/U or letter grading.

204A-204B. Advanced Climatology. (4) Lecture, three hours; laboratory, one hour. Preparation: first year of calculus and acquaintance with Fortran IV. Requisite: course 104. Courses must be taken in sequence, intended for students with strong interest in the fundamental 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) Seminar, three hours; reading period, one hour. Requisites: courses 204A, 204B, 204C. Selected topics. May be repeated for credit. S/U or letter grading.

206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Atmosphere Interactions. (4) (Same as Atmospheric and Oceanic Sciences M206.) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes. S/U or letter grading.

207. Regional Climate and Terrestrial Surface Processes. (4) Seminar, three hours. Designed for graduate students. Physical concepts and basic principles of land-surface/atmosphere interactions. Exploration of topics in terms of regional and global perspective and implications. Human activities cause changes in land cover, which in turn affect regional climate. Some regions, in particular, appear to be “hot spots.” Requisite: course 200 or one appropriate graduate course in atmospheric and oceanic sciences or Earth and space sciences. Analysis of changing physical environment of Quaternary period. May be repeated for credit. S/U or letter grading.

210. 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 biophysical and cultural factors influencing animal distributions. S/U or letter grading.

213. Seminar: Biogeography. (4) Seminar, three hours; reading period, two hours. Requisite: course 208 or 212. Related research projects growing out of course 208 or 212. May be repeated for credit. S/U or letter grading.

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 one appropriate graduate course in oceanic and atmospheric sciences or Earth and space sciences. Analysis of changing physical environment of Quaternary period. May be repeated for credit.

217. Quaternary Studies: Ecological Aspects. (4) Discussion, three hours; reading period, two hours. Requisites: courses 202 or 204A, 204B, and 204C or 208 or 212 or one appropriate graduate course in an- thropology, botany, Earth and space sciences, or zoology. Analysis of ecological aspects of environmental change during 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.

227. Land Degradation. (4) Seminar, three hours. Discussion on impact of human activities and institutions on terrestrial ecosystems and goods and services. Topics may vary from year to year. May be repeated for credit with topic change. S/U or letter grading.


229. 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 state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

Human Geography

231. Terminology and Theory in Political Economy: Deconstruction and Reconstruction of Approaches in Research, Writing, and Practice. (4) Discussion, three hours; reading period, one hour. Designed for graduate students. Deconstruction of oft-used terms in intellectual discourse with goal of making assumptions more explicit, analysis more concise, 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 212 or 222. Related research projects growing out of specific interests around 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.

235. Seminar: Social Geography. (4) Seminar, three hours; reading period, one hour. Process of doing social/cultural geography entails conceptualizing, adapting, and reformulating social and critical theories of space, subject, and power. Examination of this process by considering theoretical themes that shape concepts of social space and social research. Theoretical discussions of recent research in social/cultural geography, particularly around topics of gender, race, sexuality, subjects and spatiality, and age, and social difference and identity. S/U or letter grading.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical geography in North America and Europe. May be repeated for credit. S/U or letter grading.

240. Advanced Political Geography: Geopolitics. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Intensive study of theories and principles of geopolitics. Selected regions used as examples of differing techniques of study in geopolitics. S/U or letter grading.

241. Seminar: Political Geography of Italy. (4) (Formerly numbered 241.) (Same as Italian M241.) Seminar, three hours; reading period, two hours. Requisite: course 240. Related research projects growing out of course 240. Themes in political geography with particular emphasis on Italy. May be repeated for credit. S/U or letter grading.


248. Location and Space Economy. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Methods of locational analysis as applied to problems of regional growth and development. S/U or letter grading.

249. Seminar: Economic Geography. (4) Seminar, three hours; reading period, one hour. Requisite: course 248. Related research projects growing out of course 248. May be repeated for credit. S/U or letter grading.

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) Seminar, three hours; reading period, two hours. Requisite: course 250. Related research projects growing out of course 250. May be repeated for credit. S/U or letter grading.

Procedures

260. Advanced Field and Laboratory Methods in Biophysical Geography. (4) Laboratory, five hours; fieldwork, five hours. Examination of advanced field and laboratory procedures used in contemporary biophysical geography research. May be repeated for credit with instructor change. S/U or letter grading.
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 modifications resulting from the impact of human activity.

268. Advanced Projects in Geographic Information Sciences and Remote Sensing. (4) Discussion, one hour; laboratory, three hours. Recommended requisite: course 169 or 170 or Earth and Space Sciences 150. Familiarity with a GIS or image processing software is 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.

M270A-M270B-M270C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Atmospheric and Oceanic Sciences M272A-M272B-M272C and Earth and Space Sciences M270A-M270B-M270C.) Seminar, two hours. Archaeological, geochemical, micropaleontological, and stratigraphic evidence for climate change throughout geological past. Rheology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction of modern climate on monthly, seasonal, and interannual time scale. May be repeated for credit. S/U or letter grading.

M272. Spatial Statistics. (4) (Same as Statistics M222 and Urban Planning M215.) Lecture, three hours. Designed for graduate students. Survey of modern methods used in analysis of spatial data. Implementation of various techniques using real data sets from diverse fields, including neuroimaging, geology, seismology, demography, and environmental studies. Principal focus on landscape, but scope of cultural study within geography also emphasized. S/U or letter grading.

Regions

282. South America. (4) Seminar, three hours; reading period, two hours. Introduction to main issues in geography of South America, with focus mainly on cultural/historical geographical perspectives on the national period; themes and periods can be adapted to individual interests. S/U or letter grading.

283. Europe. (4) Seminar, two hours; discussion, two hours. Requisite: course 183. May be repeated for credit. S/U or letter grading.

286. Geography of Contemporary China. (4) Seminar, three hours; reading period, two hours. Designed for graduate students. May be repeated for credit. S/U or letter grading.

292. Advanced Regional Geography: Selected Regions. (4) Lecture, three hours; discussion, one hour. Preparation: appropriate upper division regional course. Lecture series devoted to a specific region at discretion of instructor. May be repeated for credit.

Seminars

295. Seminar: Geographic Thought. (4) Discussion, three hours; reading period, two hours. Designed for graduate students. Discussion and study of topics significant to growth of modern philosophy of geography.

296. Research Group Seminars: 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, biogeochemical cycling, biocomplexity, land/atmosphere interactions, paleoclimate, and human-induced environmental change. May be repeated for credit. Concurrently scheduled with course M424A. 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 studies. Principal focus on landscape, but scope of cultural study within geography also embraced. S/U grading.

296C. Political Geography Working Group. (1) Seminar, two hours. Limited to graduate students. Biweekly forum for analysis of current geopolitics, with emphasis on geographic impacts of recent global events. S/U grading.

296D. Agriculture and Food Studies Colloquium. (1) Seminar, one hour. Current scholarly debates surrounding food system and agriculture. Interdisciplinary discussion, with focus on research that explores interrelationships of production and consumption studies with a-via agriculture and food. Group discussion of recently published work, works-in-progress by participants, and distinguished guest speakers. S/U grading.

296E. Research Group Seminars: Human Geography. (1) Seminar, one hour. Bimonthly seminar to discuss current research in human geography. Topics vary from year to year. May be repeated for credit. S/U grading.

Core Courses

297A. History and Structure of Modern Geography. (4) Lecture, three hours; reading period, one hour. Evolution of field of geography in 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as modern academic discipline. S/U or letter grading.

297B. Physical Basis of Geography. (4) Lecture, three hours; reading period, one hour. Critical evaluation of formative influences, paradigm shifts, and present challenges of physical geography, illustrated from historical developments and changing research frontiers in geomorphology, climatology, oceanography, hydrology, and soils. S/U or letter grading.

297C. Evolution, Ecology, Environmentalism, and Roots of Modern American Geography. (4) Seminar, three hours; reading period, one hour. Discussion of how contemporary development of modern concepts of evolution, ecology, and environmentalism influenced, and were influenced by, development of modern geography as academic discipline. S/U or letter grading.


299A. 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. S/U or letter grading.

299B. Geographic Data Visualization and Analysis. (4) Lecture, three hours; laboratory, two hours. Requisite: course 168, Statistics 12. Development of broad base of knowledge and set of skills that foster conduct of high-quality geographic data analysis. S/U or letter grading.

299C. Qualitative Methods and Methodology. (4) Seminar, three hours; laboratory, two hours. Examination of definition and use of qualitative methodology and methods in social-cultural geographic research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action research, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.

299D. Research Design in Geography. (4) Lecture, four hours. Introduction to logic of geographic inquiry. Topics include questions surrounding philosophy of science, research design issues, and range of methodologies available to and implemented by geographers to enable students to evaluate geographic literature critically. S/U or letter grading.

299E. Remote Sensing of Environment. (4) Formerly numbered 269.) Laboratory, three hours; independent study, two hours. Requisite: course 167. Study of aerial photographs and other remote sensing images as tools for geographical research. Particular attention to analysis of landscapes and interpretation of interrelationships of individual features in their physical and cultural complex. S/U or letter grading.

Special Studies

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

495. Teaching College Geography. (2) Seminar, one hour; laboratory, three hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) May be repeated for credit. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 8) Independent study. May be repeated for credit. S/U grading.


GERMANIC LANGUAGES

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John A. McCumber, Ph.D.
Todd S. Presner, Ph.D.
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Professors Emeriti

Ehrhard Bahr, Ph.D.
Mariana D. Birnbaum, Ph.D.
Wolfgang Nehring, Ph.D.
Hans Wagener, Ph.D.

Associate Professor

Christopher M. Stevens, Ph.D.

Lecturer

Magdalena Tarnawska Senel, Ph.D.

Scope and Objectives

The Department of Germanic Languages offers an extraordinary array of courses in languages, literatures, and cultures. This broad range of studies offers training in specialized fields such as film, linguistics, folklore, and critical theory. Courses prepare students for a variety of careers, including law, business, international relations, academic professions, and publishing. Undergraduate majors earn a Bachelor of Arts degree. The graduate program offers Master of
Arts and Ph.D. degrees. Refer to the Scandinav-ian Section later in this catalog for information about the degrees in Scandinavian studies.

At all levels of study various specializations are possible. Language, literature, and culture stud-ies are available in Afrikaans, Dutch, and Ice-landic, 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

The German major is a designated capstone major. During their senior year, students partici-pate in a seminar where, under the guidance of a faculty member, they reflect individually and collaboratively on prior coursework for the major, review their work in those courses, and draw out common themes. Through this process students are expected to draw from their prior coursework to identify a key idea or theme that interests them, demonstrate skills at analy-zing and synthesizing knowledge, show their capacity to work well with peers, and present effectively what they have learned in a final pa-per or project.

Grammar/Composition Courses

No credit is allowed for completing a less ad-vanced course after successful completion of a more advanced course in Afrikaans, Dutch, German, and Yiddish grammar and/or composi-tion. Students with demonstrated preparation may be permitted to transfer to a more ad-vanced course with consent of the instructor.

German B.A.

Capstone Major

The German major is designed for students who seek a solid grounding in the German lan-guage, an introduction to the study of linguis-tics, literature, and cultural studies, and the op-portunity to determine their own area of focus.

Preparation for the Major

Required: German 1, 2, 3, 4, 5, 6, or equiv-a-lent. 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.

Transfer Students

Transfer applicants to the German major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of German.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: German 140 (or 141), 152, 153, 158, six upper division German courses (at least two of which must be at the 150 level or above), two upper division courses that may be in German or in another Germanic language or in related fields such as history, linguistics, music, philos-ophy, and political science, and one capstone seminar (course 191) under the supervision of a faculty member. Each course 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 di-vision German courses and a 3.3 overall GPA, and complete German 199 with a grade of A. Contact the departmental honors adviser for procedures, special arrangements, possible excep-tions, and other information.

German Minor

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

Required Lower Division Courses (8 units): German 5 and 6 or equivalent.

Required Upper Division Courses (20 units): German 152, 153, and any three German courses (excluding German literature in transla-tion).

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

Germanic Languages Minor

To enter the Germanic Languages minor, stu-dents 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 lan-guages and literatures: Afrikaans, Dutch, Ger-man (excluding German literature in transla-tion), Scandinavian languages, Yiddish.

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

Graduate Study

Official, specific degree requirements are de-tailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmmintro.htm. In many cases, more detailed guidelines may be outlined in an-nouncements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Germanic Languages offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) de-grees in Germanic Languages and a Master of Arts (M.A.) degree in Scandinavian (see Scand-inavian 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) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Development of liter-ature in Afrikaans, with special attention to authors and poets who protested apartheid — Brink, Breyten-bach, Van Heerden, Jonker, Joubert, Krige, Krog, Ler-oux, Rabie, Small, and Willemsen. Additional readings by Coetzee, De Lange, Krog, and others on censor-ship, imprisonment, South African history, and post-colonial literary theory. P/NP or letter grading.

Upper Division Courses

105A. Elementary Afrikaans. (4) Lecture, four hours; language laboratory. Introduction to sister lan-guage of modern Dutch and one national language of South Africa. Grammar, practice in listening, speak-ing, 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 analy-sis of texts from both literary and nonliterary sources. P/NP or letter grading.

135. Introduction to Afrikaans Literature. (4) Dis-cussion, three hours. Requisite: course 105B. Analy-sis of selected works from founding of Genootskap van Regte Afrikaners in 1875 to present time, includ-ing novels by recent writers such as Leroux and Brink, as well as work of poets such as Eybers, Opperman, W.E.G. Louw, Van Wyk Louw, and Breytenbach. P/NP or letter grading.

199. Directed Research or Senior Project in Afri-kaans. (4) Tutorial, three hours. Limited to juniors/se-miors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Indi-vidual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Afri-kaans. (4) Tutorial, to be arranged with faculty mem-ber who directs study or research (course section to be identified by two-letter code using initials of spon-soring instructor — see department for I.D. number). May be repeated once. S/U grading.

597. Preparation for Ph.D. Qualifying Examina-tions. (4) Tutorial, to be arranged with instructor (see department for I.D. number). S/U grading.

Dutch

Lower Division Course

10. Contemporary Dutch Society and Culture: Be-yond Rembrandt, Cheese, and Wooden Shoes. (5) Formerly numbered 100.) Lecture, three hours. Lectures and readings in English. Country known as Holland, or more correctly, The Netherlands (in Dutch: Nederland) has played crucial role in both American history and American current events. It was first coun-try to set up official diplomatic relations with U.S. (in 1782) and is major investor in U.S. and staunch ally of its foreign policy. Piercing of tourist aura surrounding The Netherlands by actively comparing and contrast-ing contemporary Dutch culture and society with con-temporary American culture and society. How life would be different growing up in The Netherlands. Letter grading.
Upper Division Courses
103A-103B. Elementary Dutch. (4-4) Lecture, four hours; laboratory. Course 103A is requisite to 103B. Introduction to standard language of Netherlands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


104A-104B. Accelerated Dutch. (6-6) Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.

113. Modern Dutch and Flemish Literature in Translation. (4) Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and northern (Flemish) Belgium such as Boon, Claus, Couperus, Hermans, Mulisch, Multatuli, and Reve and selected poets such as Campert, Gezelle, Gorter, Kloos, Lucebert, Nijhoff, Van Ostaijen, and Vroman. Letter grading.


131. Introduction to Modern Dutch Literature. (3) Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and contemporary critiques of long-standing relation to war in which political and military confrontation seemed particularly attuned to sense of confrontationalism and scandal in cultural life. Satisfies Writing II requirement. Letter grading.

59. Holocaust in Film and Literature. (5) Lecture, three hours; discussion, one hour. Historical exploration of major Central European cities and their cultures. P/NP or letter grading. 61B. Weimar. 61C. Vienna; 61D. Prague.

58. Knights and Ladies, Sex and Power at Medieval Court. (3) Lecture, three hours. Focus on cultural and contemporary critiques of long-standing relation to war in which political and military confrontation seemed particularly attuned to sense of confrontationalism and scandal in cultural life. Satisfies Writing II requirement. Letter grading.

M07. Origin of Language. (5) Same as Communication Studies M07 and Indo-European Studies M07.) Lecture, three hours; discussion, one hour. Theoretical and methodological issues surrounding origin of language. Topics include: evolutionary theory, evolvement of the vocal tract, and phonological, cultural, and philosophical perspectives. May be repeated for credit. Individual contract required. P/NP or letter grading.

55. City as Text: German Exile Culture in Los Angeles. (4) Lecture, three hours. Examines the lives and works of German exiles from World War I and II. Taught in English. Satisfies Writing II requirement. Letter grading.

56. Figures Who Changed World. (5) Lecture, three hours; discussion, one hour. Introduction to strains of German philosophy and political thought that resonated internationally. Use of version of "great man" model of history to move beyond such models in its understanding of how, exactly, intellectual currents actually ferment change in world. 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 earliest period, such as heroic and courtly epic, to authors such as Grimmelshausen, Lessing, Schiller, and Goethe. P/NP or letter grading.

50B. Romanticism to Present. (5) Lecture, three hours; discussion, one hour. Study and analysis of selected masterworks in English translation, including authors such as E.T.A. Hoffmann, Heine, Fontaine, Rilke, Kafka, Brecht, Thomas Mann, Hesse, Grass, Boll, and Christa Wolf. P/NP or letter grading.

57. Hollywood and Germany. (5) Lecture, three hours; discussion, one hour. Examination of images of Germany generated by Hollywood, cultural historical interface between Hollywood and Germany, and contemporary critiques of long-standing relationship between these cultural sites. Discussion of how and why cultural stereotypes are generated and maintained, and why film is a uniquely powerful tool in ideological discourse. P/NP or letter grading.

58. Knights and Ladies, Sex and Power at Medieval Court. (5) Lecture, three hours; discussion, one hour. Introduction to culture of high medieval court, one of great achievements of European Middle Ages. P/NP or letter grading.

59. Holocaust in Film and Literature. (5) Lecture; screenings, five hours; discussion, one hour. Examination of images of Germany generated by Hollywood, cultural historical interface between Hollywood and Germany, and contemporary critiques of long-standing relationship between these cultural sites. Discussion of how and why cultural stereotypes are generated and maintained, and why film is a uniquely powerful tool in ideological discourse. P/NP or letter grading.

56. Figures Who Changed World. (5) Lecture, three hours; discussion, one hour. Introduction to strains of German philosophy and political thought that resonated internationally. Use of version of "great man" model of history to move beyond such models in its understanding of how, exactly, intellectual currents actually ferment change in world. P/NP or letter grading.

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58. Knights and Ladies, Sex and Power at Medieval Court. (5) Lecture, three hours; discussion, one hour. Introduction to culture of high medieval court, one of great achievements of European Middle Ages. P/NP or letter grading.

59. Holocaust in Film and Literature. (5) Lecture; screenings, five hours; discussion, one hour. History of Holocaust and its present memory through examination of challenges and problems encountered in trying to imagine its horror through media of literature and film. P/NP or letter grading.

60. War. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 102. Analysis of works that forced reflection on cultural history of war — on its significance from anthropological, cultural, and philosophical perspectives rather than from perspective of political and historical gains and losses. Emphasis on World War I, war in which political and military confrontation seemed particularly attuned to sense of confrontationalism and scandal in cultural life. Satisfies Writing II requirement. Letter grading.

61A. Modern Metropolis. Berlin. (5) Lecture, three hours; discussion, one hour. Cultural, political, architectural, and urban history of one of most vibrant and significant cities in world. Exploration of city over 800 years, using innovative methods to understand how Berlin evolved from fortified mercantile town into global city. P/NP or letter grading.

596. Directed Individual Study or Research in Germanic Languages / 373. (5) Lecture, four hours; lab hours; laboratory. Enforced requisite: course 3. Intensive intermediate course in German equivalent to courses 4, 5, 6, P/NP or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) Lecture, four hours; laboratory. 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.

Graduate Courses
596. Directed Individual Study or Research in Germanic Languages / 373. (5) Lecture, four hours; laboratory. Enforced requisite: course 1. P/NP or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) Lecture, four hours; laboratory. 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.

598. Knights and Ladies, Sex and Power at Medieval Court. (5) Lecture, three hours; discussion, one hour. Examination of images of Germany generated by Hollywood, cultural historical interface between Hollywood and Germany, and contemporary critiques of long-standing relationship between these cultural sites. Discussion of how and why cultural stereotypes are generated and maintained, and why film is a uniquely powerful tool in ideological discourse. P/NP or letter grading.

German Lower Division Courses
1. Elementary German. (4) Lecture, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary German for Graduate Students. (4) Lecture, four hours. 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.

3. Elementary German for Graduate Students. (4) Lecture, four hours. 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) Lecture; reading and translation, three hours. Requisite: course 1. Examination of works that forced reflection on cultural history of war — on its significance from anthropological, cultural, and philosophical perspectives rather than from perspective of political and historical gains and losses. Emphasis on World War I, war in which political and military confrontation seemed particularly attuned to sense of confrontationalism and scandal in cultural life. Satisfies Writing II requirement. Letter grading.

100. German History and Culture before 1500. (4) (Formerly numbered 100A.) Lecture, three hours; discussion, one hour. Taught in English. Study of German culture and society from beginning to 1500 as represented in literature, art, and architecture. P/NP or letter grading.

101. German History and Culture, 1500 to 1914. (4) (Formerly numbered 100B.) Lecture, three hours; discussion, one hour. Taught in English. 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.

102. War, Politics, Art. (5) (Formerly numbered 100C.) Lecture, three hours; discussion, one hour. Taught in English. Analysis of interrelationship between politics, social conditions, and arts with respect to World Wars I and II and German history to be used as model for principal questions of society and philosophical thinking. P/NP or letter grading.

103. German Film in Cultural Context: Early German Film. (4) (Formerly numbered 102A.) Lecture, two hours; discussion, one hour. Taught in English. Survey of German film between 1919 and 1945. Analysis of technological and stylistic development of film from silent Expressionist films to Nazi propaganda and entertainment films. Film discussions enhanced by interactive media. Letter grading.

104. German Film in Cultural Context, 1945 to Present. (4) (Formerly numbered 102B.) Lecture, two hours; discussion, one hour. Taught in English. Survey of German film since 1945 in its thematic and stylistic diversity. How did German filmmakers grapple with aftermath of World War II and Holocaust, eco-
nomic recovery, Cold War and division of Germany, reunification, and growth of minority communities? Film discussions enhanced by interactive media. Letter grading.

M105. Tristan, Isolde, and History of Heterosexuality. (4) (Formerly numbered M104.) (Same as Gender Studies M119.) Lecture, three hours. Taught in English. Attention to relations between the Tristan and Isolde story from Middle Ages to 20th century. Particular attention to relation between representation of heterosexual love in each text and contemporaneous ideas about human sexuality. P/NP or letter grading.

106. Bargaining with Devil. (4) Lecture, three hours. Taught in English. Investigation of how devil's pact has served as metaphor for human's desire to transcend limits of power, human knowledge, and artistic achievement. Readings and viewings include Book of Genesis, historical documents from witchcraft trials, Goethe's Faust, romantic stories and fairy tales, and Rosemary's Baby. Letter grading.

M107. Love and Sex in German Literary Tradition. (4) (Formerly numbered M108.) (Same as Gender Studies M108.) Lecture, three hours. Taught in English. Study of major literary works that address issues of intersection between love and sexuality, boundaries, and development of sexual identity. Letter grading.

108. Nietzsche and Critique of Western Culture. (4) (Formerly numbered M111.) Lecture, two hours; discussion, one hour. Taught in English. Readings that focus on Nietzsche's critique of Christianity, master/slave dynamic, and reciprocal relation between poetry and philosophy. German majors required to complete all readings in German. Letter grading.

109. Jewish Question and German Thought. (4) (Formerly numbered 112.) Lecture, three hours. Taught in English. Analysis of works that represent process of Jewish assimilation, disenfranchisement, extermination, including authors such as Mendelssohn, Heine, Kafka, Paul Celan, Nelly Sachs, Anne Frank, and others. Letter grading.

110. Special Topics in Modern Literature and Culture. (4) (Formerly numbered 116.) Lecture, three hours. Taught in English. Content varies with instructor and may include works by authors such as Thomas Mann, Rilke, Kafka, Brecht, Christa Wolf, and others. May be repeated for credit. Letter grading.

111. Thomas Mann, Hesse, Böll, and Grass: German Nobel Prize Winners in English. (4) (Formerly numbered 117.) Lecture, three hours. Taught in English. Analysis of works that represent process of 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.

112SL. Between Memory and History: Interviewing Holocaust Survivors. (Seminar, two hours; fieldwork, two hours. Strongly recommended requisites: prior European and Holocaust history courses. Examination of testimonial value of eyewitness testimony. Holocaust through service opportunities that bring students together with survivors. Question of testimony approached from number of perspectives, including legal, historical, and ethical, to examine vexed relationship between history and memory. Examination of survivor testimony through classic memoirs in field, such as Primo Levi's The Drowned and the Saved and Righteous Flare. Still Alive Through - collaboration with Jewish Family Services, 1939 Club, and Los Angeles Museum of Holocaust, students meet and work with Holocaust survivors and under- take collaborative efforts to record oratorios. Students also research and curate series of interactive tours through Museum of Holocaust. Letter grading.

140. Language and Linguistics. (4) (Formerly numbered 150.) Lecture, three hours. Enforced requisite or corequisite: course 6. Taught in English with German proficiency required. Theories and methods of linguistics, with emphasis on structure of modern standard German, phonology, morphology, syntax, semantics, and pragmatics. Other topics include dia- chronic, spatial, and social variation of German (i.e., its historical development, dialectology, and sociolinguistic dimensions). Letter grading.

141. Current Topics in Germanic Linguistics. (4) (Formerly numbered 170.) Lecture, three hours. En- forced requisite: course 152. Taught in English with German proficiency required. In-depth investigation of one topic in field of Germanic linguistics, such as phonetics and phonology, morphology and syntax, semantics and pragmatics, social and spatial variation (i.e., sociolinguistics and dialectology of German), or history of German. May be repeated for credit. Letter grading.

C142. Linguistic Theory and Grammatical De- scription. (4) (Formerly numbered C172.) Lecture, three hours. Enforced requisite: course 140 or Lin- guistics 20. Taught in English with German proficien- cy required. Problems in structure of Dutch and Ger- man, considered from theoretical frameworks such as sign-organized grammar, generative syntax, and semantics. P/NP or letter grading.

151. German Play Production Act II. (5) (Formerly numbered 119B.) Lecture, four hours. Requisites: courses 3 (enforced), 150. Taught in German. Staging of German play. Students responsible for various as- pects of theater production, including acting and tech- nical jobs (costumes, sets, and programs), intensive pronunciation practice. Two public performances take place at end of term. May be repeated for credit. Letter grading.

152. Conversation and Composition on Contem- porary German Culture and Society I. (4) (Formerly numbered 130A.) Lecture, three hours; discussion, one hour. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

153. Conversation and Composition on Contem- porary German Culture and Society II. (4) (Formerly numbered 130B.) Lecture, three hours. Requisite: course 6. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

154. Business German. (4) (Formerly numbered 132.) Lecture, three hours. Enforced requisite: course 6. Taught in German. Specialized language course that teaches German business administration, practices, and correspondence, with attention to cultural nuances. Ongoing developments in European Union an- alyses via newspaper articles and Internet. P/NP or let- ter grading.

155. Advanced German Language through Cultural History and Current Affairs. (4) (Formerly numbered 134.) Lecture, three hours. Requisites: courses 152, 153. Taught in German. Advanced German lan- guage course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and criticism. Read- ings may include selections from Luther, Heine, Freud, and current authors. Students create their own interactive media presentations. Letter grading.


157. Contemporary German Cinema: Advanced Conversation and Composition. (4) Lecture, three hours. Taught in German. Development of advanced speaking skills and thorough grounding in essay writ- ing. Students view German films that take collaborative research projects and oral histories. Question of Holocaust through unique service opportunities that bring students together with survivors. Exploration of first half of two-century history of German philosophy — period from Nietzsche through Habermas, including Heidegger, Gadamer, Laspers, and Frankfurt School theorists. Letter grading.

158. Introduction to Study of Literature. (4) Lecture, three hours. Taught in German. Introduction to most important terms and resources of literary analy- sis. Students read primary works in close and critical reading of literary texts, develop ba- sic research techniques, acquire familiarity with ba- sics of literary and cultural analysis, and find pleasure in pursuit of literary and cultural study. Letter grading.

160. Introduction to German Poetry. (4) (Formerly numbered 140A.) Lecture, three hours. Requisite: course 152 or 153. Taught in German. 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.

161. Introduction to German Drama. (4) (Formerly numbered 140B.) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected dramatic genres (e.g., tragedy, comedy, one-act plays, melodrama, opera, theater, historical drama, etc.), including systematic review of dramatic forms, techniques, and theories. Texts selected from both contemporary and earlier periods. Letter grading.

162. Introduction to German Narrative Prose. (4) (Formerly numbered 140C.) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of narrative prose genres (e.g., short story, novelty, fairy tales, etc.), including systematic review of narrative forms, techniques, and styles. Texts selected from both contemporary and earlier periods. Letter grading.

163. Project of Enlightenment. (4) (Formerly numbered 142.) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Topics in Enlightenment literature, social history, and culture. Works by Goethe, Lessing, Schiller, Kant, Mozart, and others. Letter grading.

164. Introduction to 19th-Century Studies. (4) (Formerly numbered 144.) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Presentation of major texts from Romanticism to realism. Works by Kleist, Büchner, Heine, Fontane, and others. Letter grading.

165. Introduction to Modern Literature. (4) (Formerly numbered 146.) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected modern works written between 1890 and 1945, including texts by authors such as Thomas Mann, Kafka, Rilke, Brecht, and others. Letter grading.

166. Introduction to Contemporary Literature. (4) (Formerly numbered 148.) Lecture, three hours. Advanced analysis and discussion of selected works (poetry, drama, prose) of early modernism from 1945 to present. Examination of works such as Friedrich Schlegel, Novalis, and Hoffman, as they express war experience, crisis of consciousness, and cultural conflicts between wars, as well as innovations in narrative technique. Letter grading.

167. Interdisciplinary perspectives on poetic conventions and forms, diction, imagery, symbolism, and metrics. Letter grading.

175. Interdisciplinary Germany: Literature, Politics, Migration, and Culture. (4) Lecture, three hours. Taught in German. Most studies in German; some theoretical or methodological work in contemporary issues such as immigration and intercultural identity in Germany since 1960, with focus on period after 1990. Examination of various cultural spaces, practices, and standpoints as they are reflected in literature and cultural debate. Introduction to poetic forms and cultural contexts. Letter grading.

187. Undergraduate Seminar. (4) Seminar, three hours. Required of all German majors who are candidates for general second instructional credential. Content varies by instructor and may include advanced work in folklore, film, and German studies. Letter grading.

191. Capstone Seminar. (2) Seminar, three hours. Limited to senior German majors. Requisites: courses 140 or 141, 142 or 144. Four upper division electives required for major. Collaborative discussion of and reflection on courses already taken for major, drawing out and synthesizing larger themes and culminating in paper or other project. Must be taken in conjunction with one course numbered 140 or higher. Letter grading.

197. Individual Studies in German. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As signed and tangible evidence of mastery of subjects and course requirements must be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in German. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culling paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

201A. Bibliography, Research Methods, and Scholarly 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 reference works, library catalogs, archives, literary histories, and special attention to online resources. Practical exercises in analysis of sources, compilation and presentation of bibliographies, and writing of research papers. Letter grading.

201C. Theories of Literary Interpretation. (4) Lecture, three hours. Advanced analysis and discussion of various models of literary interpretation and schools of thought such as hermeneutics, psychoanalytic criticism, historical approaches, semiotics, structuralism, and poststructuralism. Topics vary with instructor. Letter grading.

202A. Middle High German. (4) Lecture, three hours. Introduction to Middle High German language, with particular emphasis on teaching facility in reading, study of grammar, syntax, and vocabulary combined with introduction to poetic forms and cultural context. Letter grading.

202B. Readings in Middle High German Literature. (4) Lecture, three hours. Introduction to medieval German literature and literary history and to use of contemporary theory in study of medieval texts. Continued practice in reading Middle High German, although most texts to be read in modern translation. Letter grading.

204. Early Modern German Literature. (4) Lecture, three hours. Selected readings from 1500 to 1700, with introduction to development of German as modern literary language and to literary and cultural models. Impact of Thirty Years’ War on German literary production and reception in German baroque. Letter grading.

205. Introduction to Enlightenment Literature and Culture. (4) Lecture, three hours. Analysis of major 18th-century German texts from philosophic, social-historic al, psychohistorical, and literary perspectives. Letter grading.

207. Weimar Classicism. (4) Lecture, three hours. Reading and interpretation of major works of German classicism. May include problems in reception of classicism by later authors and cultural theorists. Letter grading.

208. Romanticism. (4) Lecture, three hours. Analysis of selected works and theories of German Romantics such as Friedrich Schlegel, Novalis, and Hoffman, with attention to relationship between Romanticism and other periods. Letter grading.


210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works (poetry, drama, prose) of early modernism from Hofmannsthal to Kafka. Discussion of sociological spectra and pluralism of styles and forms. Letter grading.

210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of 20th century as they express war experience, crisis of consciousness, and 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 and divided Germany, gender expectations, and social-political attitudes. Letter grading.

212. Contemporary Literature and Culture. (4) Lecture, three hours. Analysis of current cultural issues and their relation to literary production and interpretation. Topics may include areas such as feminism, postcolonialism, postmodernism, and contemporary theories of textuality. Letter grading.

213. Topics in Literature and Film. (4) Lecture, three hours. With focus on different modes of cultural representation, examination of topics in German literature and film from Weimar Republic to present. Study of media theory, feminist film theory, and interrelationships between film, literature, and social history. Letter grading.

217. History of German Language. (4) Discussion, three hours. Historical survey of development of standard literary German language from time of Indo-European unity through proto-Germanic, West Germanic, medieval period, Reformation, baroque period, and Enlightenment until its final codification at end of 19th century. S/U or letter grade.


231. Gothic. (4) Discussion, three hours. Systematic study of philosophy and ideology of Gothic language, with readings in Wulff’s translation of Bible and introduction to history of Gothic and its place in development of modern Europe. S/U or letter grade.
232. Old High German. (4) Discussion, three hours. Introduction to earliest phases of German literature, with extensive readings in major documents of that period (750 to 1050). Emphasis on grammatical interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.

233. Old Saxon. (4) Discussion, three hours. Introduction to major documents in Old Low German. Readings in Heliand and study of Old Saxon Genesis. S/U or letter grading.

C238. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: courses 245 or 246. Taught in English with German proficiency required. Problems in structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrently scheduled with course C142. Graduate students meet as group one additional hour each week and write research papers of greater length and depth. Letter grading.

251. Seminar: Germanic Linguistics. (4) Seminar, three hours. Current topics in synchronic or diachronic linguistics, such as specific issues in generative grammar, sociolinguistics, dialectology, or language contact. Letter grading.

252. Seminar: Historical and Comparative Germanic Linguistics. (4) Seminar, three hours. Topics selected from historical German phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of Germanic languages, development of Germanic vergangenheitsmorphology, proto-German syntax). S/U or 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 Phenomenology of Spirit or as it relates to historical events such as French and American Revolutions. Letter grading.


260. Seminar: Modern Period. (4) Seminar, three hours. In-depth analysis of one particular issue in pre-1945 German literature and culture. Letter grading.

261. Seminar: Contemporary Literature. (4) Seminar, three hours. In-depth analysis of one particular issue in post-1945 German literature and culture. Letter 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.


265. German Philosophy. (4) Seminar, three hours. German philosophical tradition is one of most influential, difficult, and problematic Western world has known. Beginning with Kant's Critique of Pure Reason and continuing through Hegel, Marx, Nietzsche, and Heidegger to Arendt and thinkers of Frankfurt school, German philosophers have explored, more deeply and rigorously than any other Western thinkers, nature and limits (if any) of human mental activity. Results have been basic to social, political, and aesthetic theory as well as to philosophy itself. Exploration of thought of one member of that tradition by concentrating yearly on one exemplary text. 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 learn 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 teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. 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.

496. Teaching with Technology. (4) Seminar, one hour. Introduction to technology as it relates to technological resources available to them and demonstration of how to incorporate computer-based assignments into curriculum. Discussion of pros and cons of using different types of material both inside and outside classroom, as well as how technology can be used to create teaching portfolios and interactive learning tools. S/U grading.

596. Directed Individual Study or Research. (4) Tutorial, three hours. To be arranged with faculty member who directs study or research. Required research paper must be filed with department chair. S/U grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination preparation. S/U grading.

599. Research for and Preparation of M.A. Thesis. (4 to 12) Tutorial, three hours. To be arranged with faculty member who directs research for and preparation of thesis. S/U grading.

signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Yiddish. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for 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 study (see department for I.D. number). S/U grading.

GERONTOLOGY

Interdisciplinary Minor

Meyer and Renee Luskin School of Public Affairs

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Chair

David B. Reuben, M.D.

Faculty Committee
Janet C. Frank, Dr.P.H. (Medicine)
Michael R. Irwin, M.D. in Residence (Psychiatry and Biobehavioral Sciences, Psychology)
Lene F. Levy-Stroms, Ph.D., M.P.H. (Social Welfare)
David B. Reuben, M.D. (Medicine)
Theodore F. Robles, Ph.D. (Psychology)
Gary W. Small, M.D. (Psychiatry and Biobehavioral Sciences)
Fernando M. Torres-Gil, Ph.D. (Public Policy, Social Welfare)
Steven P. Wallace, Ph.D. (Community health Sciences)

Scope and Objectives

The worldwide expansion of the older adult population ensures that issues regarding aging will dominate our environmental, economic, social, political, psychological, and medical concerns and endeavors well into the twenty-first century. The undergraduate minor in Gerontology (1) provides a foundation understanding of the current state of science related to human aging, (2) enables students to assess longevity's potential contribution and challenge to contemporary society, and (3) provides an appreciation of opportunities to contribute, personally and professionally, to a diverse aging society.

Undergraduate Study

Gerontology Minor

To enter the Gerontology minor, students must have an overall grade-point average of 2.0 or better and a grade of B or better in Gerontology M108.

Required Upper Division Courses (28 to 32 units): Gerontology M108, four courses from M104C, M104D, M119O, M119X, M142SL, M150, M165, Psychology 124C, 150, and two courses from Gerontology 195, 199A, 199B.

Students who have completed General Education Clusters 80A with a grade of B or better may petition to have the course applied toward the gerontology core course requirement. Students who have completed General Education Clusters 80CW may petition to have the course applied toward one of the elective requirements.

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

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

Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.

120. Sex and Aging. (4) Lecture, three hours. Sexuality in aging from psychological, psychobiological, physical, and psychosocial perspectives, with emphasis on differences between females and males concerning physical and social changes that occur with aging and how this impacts on emotional well-being and human sexual response. P/NP or letter grading.

M142SL. Intergenerational Communication across Lifespan. (4) (Same as Social Welfare M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in conversation? How do you talk to your grandparents? Does your family talk well to one another as group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

M150. Sociology of Aging. (4) (Same as Sociology M150.) Lecture, three hours, discussion, one hour. Study of sociological processes shaping definition, experience, and response to aging in contemporary society. Topics include race, class, and gender in aging over life course; interpersonal relations and social worlds of aged; caregiving relations and institutions; professions concerned with aged and aging. Letter grading.

M165. Disability Policy and Services in Contemporary America. (4) (Same as Disability Studies M130 and Social Welfare M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead such lives. Who are people with disabilities in contemporary America? How has U.S. responded over time to various needs and aspirations of people with disabilities, young and old? What demands have been made over time by disability advocates? How has government addressed demands of advocates for various disability populations? What do we know about extent to which public policies and programs are responsive to people in need? How do demographics, economics, and politics continue to influence evolving public policy responses? P/NP or letter grading.

195. Community or Corporate Internships in Gerontology. (4) Tutorial, one hour; internship (approved community setting), eight hours. Requisites: Gerontology M108. Limited to juniors/seniors. Internship in applications of gerontology in supervised setting in community agency or business. Students meet on regular basis with sponsor and provide periodic reports of their experience. Cumulating report required. May be repeated for credit, but only 8 units may be applied toward minor. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Gerontology Advising Office, 3375H Public Affairs Building, P/NP or letter grading.

196. Research Apprenticeship in Gerontology. (2 to 4) Tutorial, three hours per unit. Requisite sites: courses M119O or M119X, and M140. Limited to juniors/seniors. Entry-level research apprenticeship with practical applications of gerontology through research under guidance of faculty mentor. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office, 3375H Public Affairs Building, P/NP or letter grading.

199A. Directed Research or Senior Project in Gerontology. (2 to 4) Tutorial, three hours per unit. Requisite sites: courses M119O or M119X, and M140. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office, 3375H Public Affairs Building. Letter grading.
199B. Guided Research or Senior Project in Gerontology. (4) Tutorial, to be arranged. Requisites: courses M1190 or M119X, and M140. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office, 3375H Public Affairs Building. P/NP grading.

GLOBAL STUDIES

Interdepartmental Program
College of Letters and Science

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Michael F. Thies, Ph.D., Chair

Faculty Committee
John A. Agnew, Ph.D. (Geography, Italian)
Elizabeth M. DeLoughry, Ph.D. (English)
Saloni Mathur, Ph.D. (Art History)
David L. Rigby, Ph.D. (Geography, Statistics)
William R. Summerhill, Ph.D. (History)
Michael F. Thies, Ph.D. (Political Science)
Dominic R. Thomas, Ph.D. (Comparative Literature, French and Francophone Studies)
Robert Trager, Ph.D. (Political Science)
Yunxiang Yan, Ph.D. (Anthropology)

Scope and Objectives

The Global Studies major provides undergraduate students with a rigorous interdisciplinary education in the principal issues confronting today’s globalized world. The curriculum features three thematic pillars that capture the principal dimensions of the unprecedented depth and breadth of interconnectedness among nation-states, ethnic and religious groups, and individuals. Course and curricula courses concentrate on the tensions between local ways of life with deep historical, linguistic, ethnic, and religious roots and today’s pressures for transnational cultures and multiple identities, fueled by the communication of ideas and the movement of people all around the world. Governance and conflict courses focus on challenges to the nation-state from forms of governance above (regional and global forms of governance) and below (autonomy and secessionist movements) and from security threats beyond Interstate warfare (ethnic conflict, terrorism, civil wars). Markets courses address the interac-

tion among global, regional, national, and subnational economic processes and market dynamics, their effects on different societies with respect to economic growth, poverty, inequality, and the interactions among market forces, political institutions, and public policy.

The curriculum draws on insights from disciplines across the humanities and social sciences to give students the theoretical and methodological skills and knowledge base nec-

essary to understand this complex and rapidly changing world.

Undergraduate Study

The Global Studies major is a designated capstone major. As students progress through the major, they move from a set of broad themes, theories, and perspectives to a more specialized focus about which they develop a specific research expertise and write a thesis. In completing the capstone, students should demonstrate an appropriate mastery of a specialized area of global studies and a critical understanding of current scholarly concerns, literatures, and debates. They should also be able to identify and analyze primary sources and use those sources and appropriate scholarly literature to design and carry out a research project.

Global Studies B.A.

Capstone Major

Admission

Admission to the Global Studies major is by application only and is highly competitive, with only a limited number of students admitted each year. To be eligible to apply, UCLA students must have completed all non-language preparation for the major courses and one modern foreign language equivalent to level 3 by the end of the term in which they are applying. Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and the UC grade-point average for all preparation courses must be a minimum of 3.25. In addition, students must have earned a grade of B or better in Global Studies 1.

The application period is once per year, and students must apply no later than the end of Fall Quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Global Studies Premajor

Incoming freshman and transfer students may be admitted as Global Studies premajors on acceptance to UCLA. Premajor students must apply for the major at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: Global Studies 1 with a grade of B or better; one statistics course selected from Political Science 6, 6R, Statistics 10, 11, or 12; demonstrated proficiency equivalent to level 6 at UCLA in one modern foreign language; and five additional courses as follows: (1) one culture and society course selected from Anthropology 9, Comparative Literature 1C or 2C, 1D or 2DW, Ethnomusicology 25, Geography 3, 6, History 2B, or World Arts and Cultures 20, (2) one governance and conflict course selected from History 22, Political Science 10, 20, 30, 50, 50R, or Sociology 1, and (3) one markets course selected from Economics 1, 2, or Geography 4. The remaining two courses, taken from two separate categories, may be selected from the three lists above. One course from the following list may be applied toward the culture and society category: Asian 70C, French 14, 14W, Italian 42A, 42B, Middle Eastern Studies 50C, Russian 90B, 90BW, Spanish 42, 44. A minimum grade-point average of 3.25 is required in these courses.

Transfer Students

Transfer applicants to the Global Studies pre-major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one modern world history course, one major world region languages and cultures course, one international politics course, one macroeconomics or microeconomics course, one statistics course, and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of Fall Quarter of their junior year.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admis-
tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Global Studies 100A, 100B, and seven elective courses, with at least two from each of the following categories and at least three in one category: (1) culture and society — Anthropology M154Q, Art History C180A, Chicana and Chicano Studies M147, Communication Studies 122, Comparative Literature 100, C173, English 114, Film and Television 110C, French 142, Gender Studies M147C, M154Q, M162, Geography 153, 138, Sociology 151, 154, M162, 191F, World Arts and Cultures 102: (2) governance and conflict — Asian American Studies 171A, Geography 140, History 121E, 121F, 135C, Political Science 122A, 138B, 166, Public Policy CM117, Sociology 182; (3) markets — Anthropology 153P, Chicana and Chicano Studies M125, Economics 121, 122, Geography 148, History 131A, International Development Studies M100B, Political Science 124A, M167C, Sociology 183.

After successful completion of Global Studies 100A and 100B, students are expected to attend a summer Global Learning Institute at one of several locations around the world in which they enroll in Global Studies 110A and 110B.

During their senior year, students must also take four capstone courses — Global Studies 191 and 194 in Fall Quarter, followed by 199A and 199B. Courses 199A and 199B culminate in a capstone senior thesis of 35 to 50 pages.

Honors Program

To qualify for departmental honors, students must have a grade-point average of 3.5 or better in upper division courses in the major, (2) have a cumulative GPA of 3.25 or better, and (3) complete Global Studies 199B with a grade of A or better. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students dem-
Global Studies Minor
The Global Studies minor offers students a multidisciplinary curriculum in the humanities and social sciences through which they can explore the complex and multifaceted interconnections that characterize the contemporary world. The minor is designed to complement and enrich studies in their major. To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average) and (2) have completed Global Studies 1 and one course in two of the following three categories: (a) culture and society — Anthropology 9, Asian 70C, Comparative Literature 1C or 2CW, 1D or 2D, Ethnomusicology 25, French 14, 14W, Geography 3, 6, History 2B, Italian 42A, 42B, Middle Eastern Studies 50C, Russian 90B, 90BW, Spanish 42, 44, World Arts and Cultures 20, (b) governance and conflict — History 22, Political Science 10, 20, 30, 50, 50R, Sociology 1, and (c) markets — Economics 1, 2, Geography 4.


After completing Global Studies 100A and 100B, Global Studies minors are highly encouraged to participate in a summer Global Learning Institute at one of several locations around the world. The courses offered, Global Studies 110A and 110B, may be applied toward any two of the elective categories (culture and society, governance and conflict, and markets).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two upper division courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Global Studies Lower Division Courses
1. Introduction to Global Studies. (5) Lecture. Three hours; discussion, one hour. Introduction to phenomena of globalization and broad range of cultural, economic, political, and social issues confronting globalized world today. Structured around three thematic categories — culture and society, governance and conflict, and markets — designed to capture principal dimensions of multifaceted connections among nation-states, nongovernmental organizations, ethnic, cultural, and religious groups, and populations around world. P/NP or letter grading.

10. International Diplomacy and Foreign Affairs. (2) Lecture, 15 hours; discussion, 15 hours. Limited to high school students participating in Model United Nations (UN) Summer Institute. One-week intensive summer course, including lectures in international relations and outside study. Development of position papers in simulation of United Nations and final presentation in respective UN committees. Particular emphasis on public speaking and cooperative debate. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

Upper Division Courses
100A. Globalization: Concepts and History. (5) Lecture. Three hours; discussion, one hour. Enforced prerequisite: course 1. Introduction to concepts and history of globalization, addressing different processes and forms of globalization while attempting to develop methods and theories through which aspects of globalization can be more readily understood. Letter grading.

100B. Globalization: Contemporary Issues. (5) Lecture. Three hours; discussion, one hour. Requisite: course 100A. Application of theoretical tools and historical perspective of course 100A to most pressing contemporary issues concerning globalization. Issues include globalization and Americanization; migration, culture, and identity; terrorism and civil war; global and regional governance; global media, entertainment, and communication; and globalization and inequality. Letter grading.

110A. Globalization in Context. (5) Lecture, six hours. Requisite: course 100B. Corequisite: course 110B. Culture, economy, history, and politics of different locations around world and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.


188A-188B. Special Studies in Global Studies. (4-5) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

191. Variable Topics Research Seminars: Global Studies — Senior Seminar. (4) Seminar, three hours. Requisite: course 191. Research, discussion, and planning of individual or temporary courses, such as those taught by resident or visiting faculty members. Additionally, department faculty, fellows, and residents and consists of lecture, discussion, and practical experience in simulation of United Nations and final presentation in respective UN committees. Individual contract required. Culminating paper required. May be applied toward requirements via petition. May be repeated for credit. Individual contract required. Letter grading.


HEAD AND NECK SURGERY
David Geffen School of Medicine
UCLA
62-132 Center for the Health Sciences
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(310) 825-5179
ox: (310) 206-1392
http://headandnecksurgery.ucla.edu

Chair
Gerald S. Berke, M.D., Chair

Scope and Objectives
The Department of Head and Neck Surgery academic programs consist of a nationally recognized residency program, medical school education, prestigious fellowships, and ongoing continuing medical education. A critical success factor in these academic efforts is the high level of clinical expertise demonstrated by all faculty members. Additionally, department faculty members have an active commitment to basic science and clinical research as an integral component of the program of instruction. These tenets not only ensure quality at every educational level, but also provide a superior milieu for the development of teacher-investigators.

The residency program is incorporated into the department's patient care and research activities in six affiliated medical centers and exposes residents to all of the subspecialties during the course of their training. Medical student teaching is a combined effort by faculty members, fellows, and residents and consists of lectures, didactic learning, and hands-on experience in clinical and research settings. The department offers one- and two-year fellowships.
For further details on the Department of Head and Neck Surgery and a listing of the courses offered, see http://headandnecksurgery.ucla.edu.

**HEALTH POLICY AND MANAGEMENT**

Jonathan and Karin Fielding School of Public Health

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Frederick J. Zimmerman, Ph.D., Chair
Stuart O. Schweitzer, Ph.D., Vice Chair

**Professors**

Kathryn A. Atchison, D.D.S., M.P.H.
Roshan Bastani, Ph.D.
Robert H. Brook, M.D., Sc.D.
William S. Comanor, Ph.D.
William E. Cunningham, M.D., M.P.H.
Jose J. Escarce, M.D., Ph.D.
Susan L. Ehlin, Ph.D.
Jonathan E. Fielding, M.D., M.P.H., in Residence
Patricia A. Ganz, M.D.
Lillian Gelberg, M.D.
Neal A. Halton, M.D.
David E. Hayes-Bautista, Ph.D.
Ronald D. Hays, Ph.D.
Felicia S. Hodge, Dr.P.H.
Clifford Y. Ko, M.D.
Gerald F. Kominski, Ph.D.
Mark S. Litwin, M.D., M.P.H.
Courtney H. Lyder, N.D., G.N.P., F.A.A.N.
Carol M. Mangione, M.D., M.S.H.S.
Marvin Marcus, D.D.S.
Vickie M. Mays, Ph.D.
Jeanne Miranda, M.D., in Residence
Jack Needelmen, Ph.D.
Alex N. Ortega, Ph.D.
Thomas H. Rice, Ph.D.
Lisa V. Rubenstein, M.D., in Residence
Stuart O. Schweitzer, Ph.D.
Martin F. Shapiro, M.D.
A. Eugene Washington, M.D.
Kenneth S. Wells, M.D., M.P.H., in Residence
Antronette Yancey, M.D., Ph.D.
Frederick J. Zimmerman, Ph.D. (Fred W. and Pamela K. Wasserman Professor of Health Services)

**Adjunct Professors**

Pamela L. Davidson, Ph.D.
Aram Dobaian, Ph.D., M.P.H., J.D.
Paul C. Fu, Jr., M.D., M.P.H.
Geoffrey F. Joyce, Ph.D.
Alice A. Kuo, M.D.
Jeffrey Luck, Ph.D., M.B.A.
Richard E. Sinaiko, M.P.H.

**Adjunct Associate Professors**

Sandra Aronberg, M.D., M.P.H.
Bruce N. Davidson, Ph.D., M.P.H.
Beth A. Glenn-Mallouk, Ph.D.
Ritesh Mistry, Ph.D.
Robert J. Norder, Ph.D.
Lori S. Pelliccioni, Ph.D., J.G.
Dylan R. Hoby, Ph.D.
Samuel Y. Sessions, M.D., J.D.
Leah J. Vriesman, Ph.D.

**Adjunct Assistant Professors**

Antronette K. Yancey, M.D., Ph.D.
K. Wasserman Professor of Health Services

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them in research on American Indian cultures, societ-
ies, languages, and other issues. Quantitative meth-
ods (design, appropriate use), with emphasis on qual-
itative research methods, ethics, and social consid-
erations in conducting research in American Indian
country. Design of research and exploration of feasi-
bility of researching topics. Letter grading.

204. Seminars: Pharmaceutical Economics and Policy. (1-1-2) (Same as Econom-
ics M204M-M2044.) Seminar, three hours ev-
ever other week for three terms. Requisites: course M236, M249A, M249B, 210C. Limited to grad-
uate public health and economics students. Various
topics in economics of pharmaceutical industry, in-
cluding rates of innovation, drug regulation, and eco-
nomics of medical devices. S/U or letter grading.

205. Pharmaceutical Policy. (4) Lecture, three hours. Policy issues pertaining to pharmaceutical sec-
tor. Topics include determinants of expenditures on
drugs, price setting in industry, health insurance cov-
erage for pharmaceuticals, and research and devel-
opment process. Letter grading.

206. Healthcare for Vulnerable Populations. (4) Lecture, three hours. Overview of health services is-
suces for ensuring accessibility and availability of health care, and delivery of healthcare services to vulnerable populations within domestic and international contexts to gain un-
derstanding of social, political, economic, and cultural issues and policies in access, quality, and cost of healthcare services that lead to vulnerability for particular population groups. Introduction to strate-
gies that have been adopted to address these health disparities, analysis and development of policy and management options that serve needs of vulnerable populations within healthcare system. Letter grading.

207. Current Topics in Health Services: Practice and Policy Perspectives. (2) Seminar, two hours.
Required of Dr.PH. students. Examination and dis-
cussion of current health services topics in various practice sectors, with focus on organizational leader-
ship and direction in addressing these issues. Journal-
al club discussions of relevant scientific literature, pre-
sentations of dissertation work by advanced Dr.PH.
students, and interactive lectures/discussions by pro-
fessionals in public health practice and healthcare
management. S/U or letter grading.

214. Measurements of Effectiveness and Out-
comes of Healthcare. (4) Lecture, three hours. Requ-
isites: courses 200A, 200B, M422, Biostatistics 100A.

215A. Healthcare Quality and Performance Man-
age ment. (4) Lecture, four hours. Preparation: com-
pletion of summer internship requirement. Manage-
ment and operations of individual units and organiza-
tions of American healthcare system. Exploration of
ways in which they actually function and how to en-
sure their quality and effectiveness. Examination of
roles, activities, and daily challenges of managers and
how these challenges can best be met on day-to-
day basis. Emphasis on applied practice with intent
being improvement of student managerial competen-
cies and development of skills to manage organiza-
tional processes in delivery of health services, primar-
ily directed to improving effectiveness, efficiency, per-
formance, and quality of healthcare services. Quality
improvement and quality assurance such as perform-
ance measurement, rapid cycle testing, breakthrough se-
ries, and interorganizational collaboration benefit quality and productivity. Letter grading.

216. Special Topics in Health Services: Quality Assessment and Assurance. (4) (Formerly num-
bered 249F.) Seminar, four hours. Fundamental is-
suces in quality assessment, quality assurance, and
measurement of health status. S/U or letter grading.

217. Evidence-Based Medicine and Organizational Change. (4) (Formerly numbered 249G.) Lecture,
three hours. Requisites: courses 200A, 200B, M422,
Biostatistics 100A, 100B. Designed for graduate stu-
dents. Participation of students in critical review and
discussion of selected papers dealing with course topics, including small and large area variations in care, and development and implementation of quality
and performance improvement strategies. Letter grading.

CM221. Tobacco: Prevention, Use, and Public Pol-
icy. (4) (Same as Health Services M223.) Lecture, four hours. Designed for juniors/se-
niors and graduate students. Study of tobacco use and its health consequences, including interplay of historical, political, and eco-
nomic forces with knowledge, attitudes, and behavior
choices of individuals. Introduction to prevention inter-
ventions, cessation interventions, anti-tobacco efforts in
U.S. and other countries, and tobacco use in non-U.S.
con-structed with course C121. Letter grading.

225A-225B. Health Services Research Design. (6)
Lecture, four hours; laboratory, two hours. Limited
to departmental M.S. and Ph.D. students. Letter grad-
ing.

225A. Introduction to scope of health services re-
search, conceptualization and design of health servic-
ies research, choice and assessment of measures for
such research, and methods for studies involving di-
rect data collection to conduct health services research, alternative research para-
digms, building conceptual models of what students are
tracing to design and testing measures, and design of study and questionnaire
design, sampling, community engagement, and
feedback. Requisite: course 225A. Development of conceptual models for health services
research, identification and use of secondary data
sources, study design, and its operationalization through regression models.

226A-226B. Readings in Health Services Re-
search. (2-2) Limited to departmental M.S. and Ph.D. students. Introduction to re-
search literature in health services research, including
literature on key conceptual models, classic empirical studies, and current research illustrating cutting-edge methods or findings. In Progress (226A) and S/U
and (226B) grading.

227A. Special Topics in Health Services: Current Research Issues. (2 to 4) (Formerly numbered 249H.) Seminar, two hours. Designed for doctoral stu-
dents. Review of articles in health services journals
numbered as most published during 1990. Analysis of
tables to determine contribution to theory, methods,
and/or implications for management or policy in
health services organizations or health services as
field. May be repeated for credit with topic change.
Letter grading.

227B. Special Topics in Health Services: Seminar Series. (2 to 4) (Formerly numbered 249I.) Seminar, two hours. Designed for doctoral students. Presenta-
tion of proposed or ongoing research projects by fac-
ulty members and students, with discussion to deter-
mine relevant methodological and policy issues, as
well as to offer constructive criticism. May be repeated
for credit with topic change. Letter grading.

230. Principles of Organization Leadership. (4) (Formerly numbered 249M.) Lecture, four hours.
Designed for graduate students. Examination of prin-
ciples and models of organization leadership, including
presentation by current leaders in fields of health and
welfare. Theories and empirical investigations of lead-
ership qualities. Letter grading.

231. History of Public Health. (4) Discussion, three hours. Designed for doctoral students. Emphasis on
topics which illuminate current issues in public health policy.

236. Microeconomic Theory of Health Sector. (4) (Same as Public Policy M236.) Lecture, four hours.
Requisites: courses 200A, 200B. Concepts of microeconomics, including CEA models, including Markov models. Letter grading.

237A. Special Topics in Health Services Research Methodology. (4) Lecture, four hours; discussion,
two hours. Requisite: Biostatistics 200A. Approaches to measurement, literature review,
methodology. (6)\frac{Lecture, four hours; discussion, two upper division social sciences courses. Requisite:
Biostatistics 200A, 200B or 201. Introduction to multivariate analysis tech-
niques in health services research. Model specifi-
cation and estimation, regression diagnostics, variable transformations, instrumental variables. Application of\frac{Biostatistics 200A, 200B or 201. Designed for doctoral students. Intended to take students in statistical
methods used in health services research, with focus on practi-
cal application of advanced regression models. Letter
grading.

239A. Special Topics in Health Services: Introduc-
tion to Decision Analysis and Cost-Effectiveness
Analysis. (4) (Formerly numbered 249I.) Lecture,
four hours. Requisites: courses 200A, 200B, Tech-
niques to assess broad spectrum of medical technol-
gies, therapeutic and diagnostic tests and proce-
dures, clinical practice patterns, public health inter-
ventions, and pharmaceuticals. Demonstration of how
decision analysis provides basic framework for con-
ducting rigorous economic evaluations. May be repeti-
ted for credit with topic change. Letter grading.

239B. Special Topics in Health Services: Ad-
vanced Topics in Decision Analysis and Cost-Ef-
effectiveness Analysis. (4) (Formerly numbered 249I.) Lecture, four hours. Requisites: courses 239A, 200B. Techniques to assess broad spectrum of medical technol-
gies, therapeutic and diagnostic tests and proce-
dures, clinical practice patterns, public health inter-
ventions, and pharmaceuticals. Demonstration of how
decision analysis provides basic framework for con-
ducting rigorous economic evaluations. May be repeti-
ted for credit with topic change. Letter grading.
240. Healthcare Issues in International Perspective. (4) Lecture, four hours. Preparation: two health administrative or social division social sciences courses. Analysis of crucial issues in healthcare; manpower policy, economic support, health facilities, patterns of health service delivery, regulation, planning, and other aspects of healthcare systems probed in settings of European welfare states, developing nations, and socialist countries. S/U or letter grading.

241. Economics of Health Policy. (4) Lecture, four hours. Requisites: course M286 or doctoral standing. Second-level health economics course, with emphasis on health policy applications, designed to provide more nuanced view of health economics than does course M236. Provides more training for master's students interested in policy, as well as material and insight for doctoral students who may find it useful in thinking about dissertation topics. Emphasis on special characteristics of health and healthcare and how these characteristics can result in market failure and various policy tools that can be used to deal with these failures. Because U.S. is only developed country that has traditionally relied on private insurance, course goes into more detail on that topic. Alternative conceptual models to traditional market one, discussion of proposed U.S. reforms, and examination of systems in foreign countries. 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 evidence for social, economic, environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.


249A-249Z. Special Topics in Health Services. (2 to 4 each) Hours to be arranged. Arranged 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 on current topics and topics following preceding term. May be repeated for credit with topic change.

M249E. Advanced Topics in Health Economics. (4) (Same as Public Policy M266.) Seminar, four hours. Requisites: courses 200A, 200B, M236. Advanced study of treatment of number of topics in health economics, including mental health economics, pharmaceutical economics, and relationship between labor supply, welfare, and health. Letter grading.

M249Q. Editorial Board Apprenticeship. (2) (Same as Psychiatry M210.) Seminar, two hours. Designed for postdoctoral fellows and advanced Ph.D. students. Participation in peer review process for academic journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editor on suitability for full review. S/U or letter grading.

249R. Cancer Prevention and Control Research. (2) Seminar, two hours. Limited to graduate students. Presentations by faculty members and outside speakers, as well as students, on research topics in cancer prevention and control as well as career development issues such as grant writing, scientific review process, research funding, and other academic issues. Presentation of student research in progress as well as solicitation of feedback from class regarding grant proposals, manuscript submissions, and future directions for research. Possible reviews of assigned articles, with focus on issues in cancer prevention and control. S/U grading.

249S. Introduction to Science of Implementing Evidence-Based Practice. (4) Seminar, four hours. Requisites: courses 200A, 200B. Designed to provide basic understanding of science of implementing evidence-based practice. Through series of didactic teaching and interactive case discussions, introduction to integrated framework to understand key issues related with implementing evidence-based practice and set of tools to apply evidence base to improving healthcare quality. Guest lecturers included who are nationally recognized experts in topic content area. Interactive discussion and case analyses based on materials closely related to lecture material. S/U or letter grading.

251. Quality Improvement and Informatics. (4) Lecture, four hours. Requisites: course 100, Biostatistics 100A. Introduction to concepts of healthcare quality measurement, process improvement, and information systems, as well as organizational aspects of implementing them. Letter grading.

M252. Medicare Reform. (4) Same as Public Policy M267.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing Medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.

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 obesity, psychology, and current state of preventive and therapeutic interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

260A-260B. World Health. (2-2) Lecture, two hours. Designed for graduate students. Overview of world health, with emphasis on healthcare outside the U.S. Key areas include burden of infectious diseases, health economics, and impact of healthcare policy on healthcare delivery. In Progress (260A) and letter (260B) 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 in clinical settings. Topics include formulating appropriate questions, identifying sources, mechanism of conducting field studies, identifying funding sources, writing grants, and publishing findings. S/U or letter grading.

266A-266B. Community-Based Participatory Health Research: Methods and Applications. (4-4) Lecture, one hour; discussion, one hour; fieldwork, two hours. Limited to clinical scholars fellows. Mentoring of field experiences with introduction to critical issues in conducting research in community settings. Review of assignments, interventions, and evaluation designs for community settings and discussion of practical issues in partnering with communities. Letter grading.

M269. Healthcare Policy and Finance. (4) (Same as Public Policy M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive healthcare markets. Letter grading.

M274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) (Same as Psychology M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in the U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

280. Health Reform: Policy, Research, and Implementation Issues. (4) Seminar, three hours. Requisites: courses 200A, 200B. Limited to second-year M.P.H. and doctoral students. Analysis of components of major federal healthcare reform legislative initiative to identify important policy, research, and implementation issues. Application of principles of stakeholder analysis to understanding how legislation was constructed and how it passed Congress. Conducting of policy analyses of selected components through completion of written assignments, examination of respective roles of federal and state government in implementing and administering various components. Identification of significant implementation and administrative challenges at federal and state levels and development of possible strategies for addressing those challenges. Letter grading.

M285. Ethical Theory and Applications in Public Health. (4) (Formerly numbered M249L.) (Same as Community Health Sciences M249L.) Lecture, four hours. Requisites: courses 200A, 200B. Introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to healthcare and human rights to understand professionalization, leadership, and systems thinking and improve student sensitivity to needs of patients, communities, and fiduciary duty. New ethics are foundation of leadership. Letter grading.

286. American Political Institutions and Health Policy. (4) Lecture, three hours; discussion, one hour. To effectively participate in policy process as analyst, policymaker, advocate, or citizen, it is necessary to understand institutional and political context within which policy is made. Introduction to federal and state policy-making, with focus on health policy. Discussion of federalism and constitutionalism. Examination of stakeholders, public, interest groups, and nature of issue space for health policy. Structure and process of political institutions at federal level, Congress, Presidents, executive agencies. Overview of federal health policy and state/federal budgetary issues. State responsibilities and federal/state relations. How analysis enters policy process with examination of roles of federal analytic agencies and private researchavor. Letter grading.

M287. Politics of Health Policy. (4) (Same as Community Health Sciences M287.) Lecture, three hours; discussion, one hour. Requisites: courses 200A and 200B. Introduction to politics of health policy, 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.

288. Role and Impact of Technology on Health Services. (4) Lecture, four hours. Examination of role and impact of technology on health services in the U.S. from point of view of system itself. Exploration of various types of technologies for their policy, economic, and organizational impact. S/U or letter grading.

289. Healthcare Disparities. (4) Seminar, three hours. Limited to graduate students. Exploration of what constitutes and explains disparity in healthcare. Emphasis on understanding history of disparities in U.S. to understand current state of disparities, and on evaluating effectiveness of ongoing strategies to eliminate them, such as increasing insurance coverage and delivery of culturally competent healthcare. Examination of sociological models that explain disparities in healthcare and evaluation and expansion on these models. Letter grading.

M290. Evolving Paradigms of Prevention: Interventions in Early Childhood. (4) (Same as Community Health Sciences M237.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood interventions as means of preventing adverse health and development outcomes. Concepts of developmental vulnerabilty, approaches to assessing models of service delivery, evaluation and cost-benefit issues, funding, and other policy issues. Letter grading.

401. Public Health Informatics. (4) Lecture, three hours. Preparation: general familiarity and understanding of basic information technologies. Recommended requisite: course 251. Introduction to field of public health informatics and examination of impact of information technology on practice of public health. Emphasis on theoretical concepts and design to 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. Exploration of causes and characteristics of cancer epidemic, control goals for nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other health-related behaviors. Letter grading.

415. Organizational Analysis. (4) Seminar, four hours. Introduction to important questions and perspectives relevant to understanding organizational behavior and change in healthcare and public health environments. Active paradigms in organizational theory, particularly perspectives important for understanding delivery system change. Examination of empirical research to clarify how important organizational constructs have been operationalized and to highlight methodology-related challenges of studying organizations in healthcare/public health. Letter grading.

M420. Children with Special Healthcare Needs: Systems Perspective. (4) (Same as Community Health Sciences M420 and Social Welfare M290L.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illnesses. Letter grading.


M428. Child and Family Health Program Community Leadership Seminar. (2) (Same as Community Health Sciences M428B.) Seminar, two hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role of leadership in decision-making processes involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies that are or should be employed by organizations effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs in Los Angeles meet with students, comment on their practice experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

430. New Developments in E-Health and Internet. (4) Lecture, four hours. Introduction of new technologies in health information communication/internet/new media area, with emphasis on general background, review of applications, and discussion of organizational and managerial issues dealing with successful use and implementation of technologies. S/U or letter grading.

431. Organizational Behavior and Human Resources in Healthcare Organizations. (4) Lecture, four hours. Managerial skills and behaviors applied to components of organizations at several levels: individual, interpersonal, group, intergroup, and system. Core human resources skills required by managers. Unique features of health services organizations stressed as applications are presented. Letter grading.


437. Legal Environment of Health Services Management. (2) Lecture, two hours. Requisites: courses 200A, 200B. General survey of legal aspects of health services management. Introduction to principles of medicine and law as they affect the organizations and supervisory agencies, informed consent, medical malpractice, and contracts. S/U or letter grading.

438. Issues and Problems of Local Health Administration. (4) Lecture, three hours. Preparation: one healthcare course and introduction to principles of health administration. Epidemiology 100. Overview of administrative issues currently faced by local health departments, including public health programs during fiscal constraint, quality improvement, interagency relationships and partnerships, and political and public interactions. Letter grading.

439. Dental Care Administration. (4) Lecture, three to four hours. Requisites or corequisites: Biostatistics 100A, Epidemiology 100. In-depth examination of several specific dental care policy issues: manpower, relationship of treatment to disease, national health program strategies, and evaluation mechanisms. Letter grading.

440A. Healthcare Information Systems and Technology. (4) Lecture, four hours. Preparation: completion of summer internship. Provides strong foundation in health information technology by working in healthcare, with emphasis on development of knowledge and skill to plan, manage, and implement HIT systems in healthcare delivery organizations with clinic, hospital, and enterprise platforms. Exposure to HIT standards. Background and evolution of HIT; how it is planned, implemented, and managed; and how it can be productively used by healthcare delivery organizations. Emphasis on some of the technologies, providers, and patients/consumers. Fundamentals of technology, electronic medical records (EMR), electronic health records (EHR), personal health records (PHR), meaningful use, interoperability, and health information exchanges (HIE). Letter grading.

440B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Requisite: course 440A. Health and 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.


M449A-M449B. Child Health, Programs, and Policies. (4-4) (Same as Community Health Sciences M436A-M436B.) Lecture, four hours. Requisite: course 100. Course M449A is requisite to M449B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual study or research. Not open to students with 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 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 6) 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 12) 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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Peter Baldwin, Ph.D.
Ivan T. Berend, Ph.D.
Robert P. Brenner, Ph.D.
Brian P. Copenhaver, Ph.D. (Steven F. and Christine L. Udvar-Hazy Professor)
Soraya de Chadereavian, Ph.D.
Ellen C. DuBois, Ph.D.
John Duncan, Ph.D.
Caroline C. Ford, Ph.D.
Robert G. Frank, Jr., Ph.D.
J. Arch Getty, Ph.D.
Juan Gómez-Quiñones, Ph.D.
Nile S. Green, Ph.D.
Lynn A. Hunt, Ph.D. (Eugen Weber Professor of Modern European History)
Margaret C. Jacob, Ph.D.
Russell Jacoby, Ph.D., in Residence
Sanford M. Jacoby, Ph.D. (Howard Noble Professor of Management)
Robin D.G. Kelley, Ph.D. (Gary B. Nash Endowed Professor of U.S. History)
Valerie J. Matsumoto, Ph.D.
Ronald J. Mellor, Ph.D.
Michael Meranze, Ph.D.
Michael G. Morony, Ph.D.
David N. Myers, Ph.D.
Herman Ooms, Ph.D.
Carla Gardina Pestana, Ph.D. (Joyce Appleby Endowed Professor of American in the World)
Gabriel Pelterberg, DPhil
Theodore M. Porter, Ph.D.
Geoffrey Robinson, Ph.D.
Teotló F. Ruiz, Ph.D.
David Sabeen, Ph.D. (Henry J. Bruman Professor of German History)
Debora L. Silverman, Ph.D. (Presidential Professor of Modern European History)
Sarah Abrevaya Stein, Ph.D. (Maurice Amado Professor of Sephardic Studies)
Brenda Stevenson, Ph.D.
Sanjay Subrahmanyan, Ph.D. (Navin and Pratima Doshi Professor of Indian History)
William R. Summerhill, Ph.D.
Kevin B. Terraciano, Ph.D.
Mary Terrill, Ph.D.
Richard von Glahn, Ph.D.
Joan Waugh, Ph.D.
Scott L. Waugh, Ph.D.
Dora B. Weiner, Ph.D., in Residence
James W. Wilkie, Ph.D.
Matthew Norton Wise, Ph.D.
R. Bin Wong, Ph.D.
William H. Worger, Ph.D.
Mary A. Yeager, Ph.D.

Professors Emeriti
Joyce O. Appleby, Ph.D.
Kathryn Bernhardt, Ph.D.
Ruth H. Bloch, Ph.D.
Kees W. Bolle, Ph.D.
Giorgio Buccellati, Ph.D.
Robert N. Burr, Ph.D.
Mortimer H. Chambers, Jr., Ph.D.
Claus-Peter Clasen, Ph.D.

Robert Dailek, Ph.D.
Christopher Ehret, Ph.D.
Benjamin A. Elman, Ph.D.
Saul P. Friedlander, Ph.D. (1939 Club Professor)
Frank O. Galati, Ph.D.
Patrick Geary, Ph.D.
James L. Gelvin, Ph.D.
Carlo Ginzburg, Laurea in lettere (Franklin D. Murphy Professor Emeritus of Italian Renaissance Studies)
Robert A. Hill, M.Sc.
Thomas S. Hines, Ph.D.
Richard G. Hovannisian, Ph.D. (Armenian Educational Foundation Professor Emeritus of Modern Armenian History)
Daniel W. Howe, Ph.D.
Philip C. Huang, Ph.D.
Norris C. Hundley, Ph.D.
Nikki Keddie, Ph.D.
Barisa Krekic, Ph.D.
Naomi R. Lamoreaux, Ph.D.
John H. Laslett, DPhil.
James Lockhart, Ph.D.
Peter J. Loewnberg, Ph.D.
Atif Marsot, DPhil.
Lauro R. Martines, Ph.D.
José C. Moya, Ph.D.
Gary B. Nash, Ph.D.
Fred G. Noteheller, Ph.D.
Patricia O'Brien, Ph.D.
Merrick Posansky, Ph.D.
Peter H. Reilff, Ph.D.
Richard H. Rouse, Ph.D.
Damodar R. SaDesai, Ph.D. (Navin and Pratima Doshi Professor Emeritus of Indian History)
Alexander P. Saxton, Ph.D.
Geoffrey W. Symcox, Ph.D.
Richard Weiss, Ph.D.
Robert Wohlf, Ph.D.
Stanley A. Wolpert, Ph.D.
Geoffrey W. Symcox, Ph.D.

The History major is a designated capstone major. Undergraduate students take a capstone seminar in which they demonstrate mastery of a specialized area of history and a critical understanding of current scholarly concerns, literature, and debate, then design and complete a research project using those primary sources and literature.

History B.A.

Capstone Major

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). Each course 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 one course from 96W or 97A through 97O.

After completing the three courses with a minimum grade-point average of 2.0, students should petition to enter the major at the undergraduate counselor's office in 6248 Bunche Hall.

Required for the Major: Three additional lower division history courses.

Transfer Students

Transfer applicants to the History major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one semester or two quarters of history of Western civilization or world history, one histori-

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Scope and Objectives

History is the study of the past of our own society and how it emerged out of the traditions that produced it. At the same time, self-knowledge for students of history comes not only from self-discovery, but from a comparison of their own tradition and experience with those of others. It is only by studying the history of other civilizations and cultures that we can hope to gain perspective on our own.

The course offerings in history at UCLA are designed to bring about an understanding of the forces that have shaped the many cultures of this country and the world. UCLA has one of the largest, most distinguished, and most diverse history faculties in the country. Its main emphasis is on the many aspects of social history, but intellectual, cultural, and political history are also strongly represented.

Of all undergraduate majors, History is probably the most flexible and far-reaching. Leading to a Bachelor of Arts degree, it is excellent preparation for a wide variety of careers — law, teaching, business, the communications media, public services, and medicine.

The graduate program leads to the Ph.D. degree in History (a master's degree may be earned in the process of completing Ph.D. requirements). 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.

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The Major

Required: At least 10 upper division history courses, including (1) two courses in U.S.
history, (2) two courses in non-Western history from the same area (i.e., Latin America, Asia, Near East, Africa), (3) two courses in European history or in history of science, and (4) one capstone seminar from the History 191 series.

The requirements for U.S., non-Western, and European history may be fulfilled with either upper or lower division courses, but majors are required to take a minimum of 10 upper division history courses.

There is no language requirement for the major; however, students wishing to enter the honors program in planning to do graduate work in history are urged to pursue language study early in their undergraduate careers.

Advanced Placement Credit in History

Effective Fall Quarter 2002 for entering freshmen, no course credit is granted for any AP 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. To graduate with departmental honors, students must have a cumulative or overall GPA of at least 3.0 in all University-level coursework and at least a 3.5 GPA in all coursework required for the major.

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C. Students must register their intention to undertake an honors thesis with the undergraduate affairs vice chair no later than Spring Quarter of their junior year.

When students register for honors, they must provide the undergraduate affairs vice chair with a two-paragraph description of their thesis project, which must be approved in writing by the faculty member who agrees to act as their adviser. The undergraduate affairs vice chair must also approve the proposed project in writing.

The faculty adviser is primarily responsible for guiding the thesis work to its completion and assigns grades for the honors courses after the thesis is complete. The honors thesis should be 40 to 60 pages in length and be based on primary source material. Determination of the level of honors awarded (no honors, honors, or highest honors) is made by the undergraduate affairs vice chair, acting in conjunction with the honors committee, at the end of the term in which the thesis is completed.

History 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 of 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 179A through 180C, 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 191 sequence are designated as applicable to the upper division minor requirement. 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 interpretive paper of significant length and intellectual content. No more than one upper division course may be applied toward both this minor and a major or minor in another department or program. Transfer credit for courses may be subject to departmental approval.

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

One course may be taken on a Passed/Not Passed basis; each of the other minor courses must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa
tions as well as “big science” during the Cold War. Discusion 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 science general education requirements. P/NP or letter grading.

3A. Scientific Revolution. (5) Lecture, three hours; discussion, two hours. Survey of beginnings of physical sciences involving transformation from Aristotelian to Newtonian cosmology, mechanization of natural world, rise of experimental science, and origin of scientific societies. P/NP or letter grading.

3B. History of Science from Newton to Darwin. (5) Lecture, three hours; discussion, two hours. In this period science became part of Enlightenment campaign for reason and of culture of an Industrial Revolution. New social science and evolutionary debates about science and religion demonstrate its rising intellectual and practical significance. P/NP or letter grading.

3C. History of Modern Science, Relativity to DNA. (5) Lecture, three hours; discussion, two hours. Ranging from starting new physics of relativity and the quantum, to molecular genetics, cell theory, to molecular reproduction. examining of involvement of science in sociological and social, political, and philosophical implications of Holocaust. Exploring of involvement of science in technological and political development in Europe during World War II, is one of crucial events of modern world. P/NP or letter grading.

3D. Themes in History of Medicine. (5) Lecture, three hours; discussion, two hours. Examination of involvement of science in sociological and social, political, and philosophical implications of Holocaust. P/NP or letter grading.

3LE. Introduction to History of Religions. (5) Formerly numbered 4.) (Same as Religion M4.) Lecture, three hours; discussion, two hours. Comparative study of eight major religious traditions, with emphasis on the processes of transformation of belief in the Bible and the relationship between historical and current religious traditions. P/NP or letter grading.

5. Holocaust: History and Memory. (5) Lecture, three hours; discussion, two hours. Holocaust, murder of six million Jews by Germans in Nazi-occupied Eu- rope during World War II, is one of crucial events of modern history. Examination of origins of Holocaust, perpetrators and victims, and changes to come to terms with this genocide. Exploration of forc- es that led to Holocaust, including emergence of scienti- fic racism, anti-Semitism, and the modern state. Consideration of debates about implemen- tation of racial policies, including significance of human victims and the role of human nature, race, and the concept of the “Aryan”, and the role of the state. P/NP or letter grading.

10BW. Introduction to Civilizations of Africa since 1800. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10B or 10BH. Survey of social, economic, and political developments in Africa since 1800, with focus on slave trade, imperialism, and colonialism, and natural resources and independence. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing roles of women. Four paper required. Satisfies Writing II requirement. Letter grading.

11A-11B. History of China. (5-5) Lecture, three hours; discussion, two hours. P/NP or letter grading. 11A. To 1000. Survey of early history of China — genesis of characteristic Chinese institutions and modes of thought from antiquity to 1000. Focus on so- cial, political, intellectual, and economic aspects of early and middle empires. 11B. 1000 to 1950. Survey of later history of China — evolution of characteristic Chinese institutions and modes of thought from 1000 to 1950. Focus on social, political, intellectual, and economic aspects of late empires and rise of modern China. P/NP or letter grading.

11AH-11BH. History of China (Honors). (5-5) Lecture, three hours; discussion, two hours. Honors sequence parallel to courses 11A, 11B. P/NP or letter grading. 11AH. To 1000 (Honors); 11BH. 1000 to 1950 (Honors).


20. World History to A.D. 600. (5) Lecture, three hours; discussion, two hours. Examination of earliest civilizations of Asia, North Africa, and Europe — Mesopotamia, Egypt, Israel, India, China, Greece, and Rome — from development of settled agricultural communities until about A.D. 500, with focus on rise of cities, organization of society, nature of kingship, writing and growth of bureaucracy, varieties of reli- gious expression, and linkage between culture and society. P/NP or letter grading.

22. Contemporary World History, 1760 to Present. (5) Lecture, three hours; discussion, two hours. Broad thematic survey of world history since the mid-18th century. Examination, through lecture and discussion, of global implications of imperialism, total war, nationalism, cultural change, decolonization, changes in women's rights and roles, and eclipse of world com- munities. Designed to introduce students to current research in discipline. Culum- pating project may be required. P/NP or letter grading.

88GE. Sophomore Seminar: Special Topics in History. (5) Seminar, four hours. Requisite: designated GE lecture course; see Schedule of Classes for specific requisite lecture and seminar topics. Designed for
M104A. History of Ancient Mesopotamia and Syria. (4) (Formerly numbered M104.) (Same as Ancient Near East M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Fertile Crescent, including Palestine, from Late Uruk to neo-Babylonian period. P/N or letter grading.

M104B. Sumarians. (4) (Same as Ancient Near East M104B.) Lecture, three hours. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennia B.C.E., with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/N or letter grading.

M104C. Babylonians. (4) (Same as Ancient Near East M104C.) Lecture, three hours. Overview of Babylonian and cultural history of region from late 3rd millennium B.C.E. to invasion of Cyrus in 539 B.C.E., with focus on history and archaeology of region, urban structure, literature, and legal practices. P/N or letter grading.

M104D. (4) (Same as Ancient Near East M104D.) Lecture, three hours. Overview of Assyrian cultural history from its origins to end of Neo-Assyrian period (circa 612 B.C.E.), with focus on rise, mechanics, and decline of Neo-Assyrian Empire, which at its peak ruled the Near East from Zagros to Egypt. P/N or letter grading.

105A-105B. Survey of Middle East, 500 to Present. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of topics covered in courses 97A through 97O in greater depth through supplemental readings, discussions, and oral presentations. Pre- and corequisites: Enforced prerequisite: English Composition 3 or 3H or English as a Second Language 36. P/N or letter grading.

106A. Premodern Islam. (4) (Formerly numbered 106A.) (Same as Religion M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/N or letter grading.

M106B. Religion and Society in Modern Middle East. (4) (Formerly numbered 106B.) (Same as Religion M106B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Redefinition of religion in Middle East, emergence of new religious movements, and transformation of meaning and function of religion in society. P/N or letter grading.

107A-107B-107C. Armenian History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Armenia from prehistoric to present. P/N or letter grading.

107D. Introduction to Armenian Oral History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Use of techniques of Armenian oral history; preinterview, interview, and postinterview procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. P/N or letter grading.

107E. Caucasian under Russian and Soviet Rule. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, economic, social, and cultural history of Cauca- sus region since 1801. Georgian, Armenian, and Azerbaijani response to Russian and Soviet rule; national identity question and Soviet national republics. P/N or letter grading.

108A. History of North Africa from Islamic Conquest. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, and religious history of Islamic West (Maghrib) from Muslim conquest in 7th and 8th centuries C.E. until 1578. P/N or letter grading.

108B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic civilization in Western Europe. P/N or letter grading.

M108C. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M107P and Arabic M107.) Lecture, three hours. Designed for juniors/seniors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Maghreb. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing repre- sentations of Islam, and religions in region’s public spaces. P/N or letter grading.

109A. Early Modern State in Mediterranean. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Maghreb. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing repre- sentations of Islam, and religions in region’s public spaces. P/N or letter grading.

109B. Palestine, Zionism, and Evolution of Israeli-Palestinian Conflict. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of origins of Zionism and Palestinian nationalism, the origins of phenomenon called early modern state in Ottoman Empire from 1450 to 1700. Exploration of main themes and processes in early modern European and Middle Eastern history. Corequisites: Enforced prerequisite: Enforced prerequisite: English Composition 3 or 3H or English as a Second Language 36. P/N or letter grading.

C109C. Israeli Legal History. (1 to 5) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of origins of Arab-Israeli conflict, construction of national consensus in Israel, 1967 and its after- math, intifada, and redefinition of conflict as result of Oslo. P/N or letter grading.

M110A-M110B-M110C. Iranian Civilization. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of historiography, including intellectual processes by which history is written, results of these processes, and sources and development of history by following trends to representative historians. P/N or letter grading.

110D. History of Modern Iran, 1500 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Iran as distinct national unit, demystifying Iranian history and distinguishing its peculiarities, Safavid Empire, econo-
my, imperialism, modernity, construction of Iranian state, religion and political ideologies in early modern and modern periods. P/NP or letter grading.

111A-111B-111C. Topics in Middle Eastern History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

112A-112B-112C. History of Ancient Mediterranean World. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of ancient East from earliest times to foundation of Persian Empire. 112B. History and institutions of Rome from founding of city to death of Constantine.

112D. History and Monuments of Ancient Greece: Field Studies. (4) Fieldwork, three hours. Enforced corequisite: course 112C. Examination of history, art, and monuments of ancient Greece through daily lectures and field visits to museums and archaeological sites. Part of UCLA Summer Travel Program. P/NP or letter grading.

112E. History and Monuments of Rome: Field Studies. (4) Fieldwork, three hours. Enforced corequisite: course 112D. Examination of history, art, and monuments of ancient Rome through daily lectures and field visits to museums and archaeological sites. Field trips outside Rome to Pompeii, Hadrian's Villa, and ancient Ostia. Some attention to monuments and churches of medieval and Renaissance Rome in their historical context. Part of UCLA Summer Travel Program. P/NP or letter grading.

113A-113B. History of Ancient Greece. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 113A. Rise of Greek City-State. Emphasis on archaic period and early classical age through Persian Wars. 113B. Classical Period. Clash between Athens and Sparta, consequent rise of Macedon, and aftermath of Alexander the Great.

114A-114B-114C. History of Rome. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 114A. To Death of Caesar. Emphasis on development of imperialism and on constitutional and social struggles of late republic. 114B. From Death of Caesar to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic changes in 3rd century. 114C. Transformation of Classical World. Political, cultural, and religious history of Roman Empire from late antiquity, crisis of 3rd century, and transformation in 7 (now 12) countries of region; international circumstances and domestic political, social, and economic processes. Ideology of transition versus reality of decline in power and stability; and privatization; free choice versus determinant factors. Scenarios for future. P/NP or letter grading.

120D. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. State-socialism and Soviet domination collapsed in East-Central Europe in 1989. Analysis of cause and consequence of collapse and intellectual and social responses to impact of its partial failure in economy, politics, and culture. 120B. Short 20th Century, 1918 to 1990. Analysis and interpretation of stormy history of crisis zone of Europe where wars, revolts and revolutions, and different types of extremisms led to histori- cal detour: 70 years of departure from Western values and at last effort to turn back to them.

120C. East-Central Europe in Transition, 1988 to 1993. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 120A. 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 economy, politics, and culture. 120D. Short 20th Century, 1918 to 1990. Analysis and interpretation of stormy history of crisis zone of Europe where wars, revolts and revolutions, and different types of extremisms led to histori- cal detour: 70 years of departure from Western values and at last effort to turn back to them.

121A-121B-121C. War and Diplomacy in Europe. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Postwar history of central and eastern Europe (1945 to 1989), using eight Czech, Polish, and Hungarian films to explore life under state-socialist modernization dictatorship. P/NP or letter grading.

121A-121B. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. State-socialism and Soviet domination collapsed in East-Central Europe in 1989. Analysis of cause and consequence of collapse and intellectual and social responses to impact of its partial failure in economy, politics, and culture. 121C. Medieval Civilization: Mediterranean Heartlands. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Western Mediterranean Europe, social eco- nomic/cultural within political framework, including its relation with other cultures. P/NP or letter grading.

119C. Medieval Civilization: Mediterranean Heartlands. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Speciﬁcal topics in history of Middle Ages, including religion in society, justice and law, political and religious institutions, and renewal, and cultural representations. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading. 119A. 400 to 1000; 119B. 1000 to 1500.

121D. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of Is- lamic empire, history of manuscript book, and growth of liter- acy. P/NP or letter grading. 119A. 400 to 1000; 119B. 1000 to 1500.

121E. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. World War I, interwar period, and World War II. Social, political, and economic aspects, with focus on strain between model of parliamentary democracy and dynamics of mass politics (e.g., Boleshev Revolution, Italian Fasci, Spanish Civil War). P/NP or letter grading.

121F. World War II and Its Aftermath, 1939 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Restoration politics, Indus- trial Revolution, uprisings of 1848, unification of Germany and Italy, imperialism, rise of socialism, population growth, changes in social structure, origins of World War I. P/NP or letter grading.

121G. War and Diplomacy in Europe. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. En- lightenment, absolutism and reform, challenge of new political and economic ideas, crisis of Old Regime, impact of French Revolution and Napoleonic empire. P/NP or letter grading.

121H. Bourgeois Century, 1815 to 1914. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Enlightenment, absolutism and reform, challenge of new political and economic ideas, crisis of Old Regime, impact of French Revolution and Napoleonic empire. P/NP or letter grading.

121I. Bourgeois Century, 1815 to 1914. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Enlightenment, absolutism and reform, challenge of new political and economic ideas, crisis of Old Regime, impact of French Revolution and Napoleonic empire. P/NP or letter grading.

122A-122B-122C. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical modernization dictatorship. P/NP or letter grading. 122A. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.

122A-122B-122C. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical modernization dictatorship. P/NP or letter grading. 122A. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.

122A-122B-122D. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical modernization dictatorship. P/NP or letter grading. 122B. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.

122A-122B-122D. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical modernization dictatorship. P/NP or letter grading. 122B. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.

122A-122B-122D. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical modernization dictatorship. P/NP or letter grading. 122B. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.

122A-122B-122D. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical modernization dictatorship. P/NP or letter grading. 122B. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.
125A. Baroque and Enlightenment Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of state institutions, culture, and society in Central Europe from end of Thirty Years' War to end of Napoleonic Wars. Consideration of absolutism as political system, and baroque and Enlightenment cultures and their impact on power and hierarchy. P/NP or letter grading.

125B. Nationalism and Modernization in 19th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, assimilation, growth of national consciousness, emergence of bourgeois public sphere, dynamics of gender in civil society and political life, post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

125C. 20th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transitions that Germany has faced during this century: two world wars, shift from monarchy to republic to national socialism to divided nation, and finally reunification. Consideration of political, social, economic, and cultural spheres. P/NP or letter grading.

126. Europe in Age of Revolution, circa 1775 to 1815. (4, 5) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of the French (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 17th and 18th centuries, Low Countries from 1830 to 1818, Netherlands and Belgium in context of Europe after 1945. P/NP or letter grading.

127. History of Women in Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to Marxist philosophy and methodology; construction of class society and political life, social and political changes unleashed by these revolutionary movements in comparative and transnational perspective. P/NP or letter grading.

127A-127D. History of Russia. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

127A. Origins to Rise of Muscovy. (4) Same as Russian M118B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Koivula, Russia: Its Culture, Apparatchik principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

127B. Revolutionary Russia from Peter the Great to Nicholas II. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Westernization of state and society; centralization at home and expansion abroad; peasant problem; beginnings of industrialization; movements of political and social protest; non-Russian peoples: political reforms and social changes; Revolution of 1905; Russia in World War I; fall of old regime. P/NP or letter grading.

127C. Revolutionary Russia and Soviet Union. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Revolutions of 1917, Civil War, consolidation of Bolshevik Regime; succession crisis and ascendency of Stalin, collectivization and industrialization; foreign policy and World War II; death of Stalin, de-Stalinization, developments since 1953; would you? P/NP or letter grading.

127D. Culture and Society in Imperial Russia. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 127B or Russian 90A or 119. Designed for juniors/seniors. Themes in Russian culture and society; Russian identity during era of state-sponsored Westernization (1868 to 1917). Topics include nobility, peasantry, and village life from serfdom to postmanacipation era, urban society, working-class life and thought, women, clergy, religion, popular culture, accommodation, and resistance. P/NP or letter grading.

128. History of the Netherlands. (4) Lecture, 10 hours; fieldwork, 21 hours. Examination of history, art, monuments, and politics of Russia from ancient time to present. Daily lectures and field excursions in various cities of the Netherlands and study cruise of Volga River towns. Part of UCLA Summer Travel Program. P/NP or letter grading.

128A-128C. History of Italy. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

128A. 1350 to 1559. Most important social, economic, political, and cultural developments in history of Italy during later Middle Ages and Renaissance. 127B. 1559 to 1848. Counter-Reformation and absolutism. Enlightenment reforms, revolutionary era, and first phase of Risorgimento. 128C. 1848 to Present. Political, economic, social, diplomatic, and ideological developments.

128BL. Italian Literature in Historical Context, 1559 to 1848. (1) Seminar, three hours. Designed for seniors and to be taken in conjunction with course 128B. Reading of texts in Italian selected from works that relate to the material covered in course 128B. P/NP or letter grading.

129A-129B. Social History of Spain and Portugal, 129A. 1559 to 1848. Social history of Spain and Portugal: urban history, gold routes, slave trade, history of women, and development of different types of collective violence. 129B. The Spanish Inquisition and the Inquisition in Spain and Portugal, 1479 to 1769. Development of popular history in Iberian Peninsula. Emphasis on peasants and urban history; gold routes, slave trade, history of women, and development of different types of collective violence. P/NP or letter grading.

130A-130B. Southeastern Europe. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

130A. 1550 to 1848. Political, economic, and cultural survey of independent Balkan states in Middle Ages. 130B. 1500 to 1818. Balkans under Ottoman rule, movements of national liberation, and formation of nation states.

131A-131B. Marxist Theory and History, (4-4) Lecture, three hours; discussion, one hour (when scheduled). Course 131A is generally requisite to 131B. Designed for juniors/seniors. Introduction to Marxist philosophy and methodology; conception of historical stages; correlation of economic forces with development from feudalism to capitalism via reading Capital; theory of politics and state in relationship to historical interpretation of 19th-century European revolutions; capitalist crises. P/NP or letter grading.

132. Topics in European History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Integrated introduction to important aspects of European history, with emphasis on specific topic within broad framework. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M133A-M133B. History of Women in Europe. (4-4) Same as Gender Studies M133A-M133B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural roles of women in Western Europe from the Middle Ages to the present. P/NP or letter grading.

M133A. 800 to 1715. M133B. 1715 to Present.

M133C. History of Prostitution. (4) Same as Gender Studies M133C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include toleration in medieval Europe, impact of syphilis, birth of conventional, regulation in 19th-century Europe, white slavery scare, and contemporary global sex trade. Readings include novels, primary sources, and testimony by sex workers. P/NP or letter grading.

134A-134C. Economic History of Europe. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 134B. 1780 to 1914. Analysis of emerging European economies and changing economic dynamics; technology, demographic patterns, education, transportation, and interrelationships between Western core and European peripheries in process of industrialization. 134C. 20th Century. Changing European economy after World War I and II and in the 1990s; impact of fourth and fifth Industrial Revolutions; Great Depression of century during 1930, 1970s, oil crises, and labor history. P/NP or letter grading.

135A-135B-135C. European and World History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

135A. Exploration and Conquest, 1400 to 1700. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Origins and rapid increase in world trade, impact of European colonialism in New World, Africa, and Asia, influence of new revolutionary ideals that took shape in wake of Enlightenment of 18th century, and beginnings of industrialization. P/NP or letter grading.

135B. Colonialism, Slavery, and Revolutions, 1700 to 1870. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Surveys of major European events and trends and their impact on world in modern period. Interrelationship of European and world history, from partition of Africa to founding of India and Pakistan. Global consequences of Cold War and new place of Europe in world. P/NP or letter grading.

135C. Imperialism and Postcolonialism, 1870 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Surveys of major European events and trends and their impact on world in modern period. Interrelationship of European and world history, from partition of Africa to founding of India and Pakistan. Global consequences of Cold War and new place of Europe in world. P/NP or letter grading.

136A-136B-136C. History of Britain. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of British empire and colonies. P/NP or letter grading.

136A. Tudor-Stuart Times, 1485 to 1715. Political, socioeconomic, religious, and cultural history of Britain under Tudors and Stuarts. Topics include Reformation, transformation of economy, establishment of overseas colonies, 17th-century political upheavals and their impact on political and socioeconomic structures. 136B. Making of Modern Britain, 1715 to 1867. Social, economic, political, and cultural history of Britain from Hanoverian revolution in politics to advent of mass democracy in 19th century and World Wars. Themes include social change under pressure of industrialization, emergence of first British Empire, loss of America, shifts in religious and social position. 136C. Modern Britain since 1832.

137A-137B. British Empire since 1783. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and economic development of British Empire, including evolution of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

138A. Colonial America, 1600 to 1763. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of American society and culture, working-class life and thought, women, clergy, religion, popular culture, accommodation, and resistance. P/NP or letter grading.
1600 to 1763. Emphasis on interaction of three converging cultures: Western European, West African, and American Indian. P/NP or letter grading.

138B. Revolutionary America, 1760 to 1800. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Designed for juniors/seniors. Inquiry into origins and consequences of American Revolution, nature of revolutionary process, creation of constitutional national government, and development of capitalist economy. P/NP or letter grading.

138C. U.S. History, 1800 to 1850. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Discussion of major social, political, economic, and cultural transformations of first half of 19th century and how these changes helped to drive wedge between North and South. P/NP or letter grading.

139A. U.S., Civil War and Reconstruction. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rise of sectionalism, antislavery crusade; formation of Confederate States. War years; political and social reconstruction. P/NP or letter grading.

139B. U.S., 1875 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Sectionalism, Sectionalism, Sectionalism; formation of Confederate States. War years; political and social reconstruction. P/NP or letter grading.


141A-141B. American Economic History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 141A. 1790 to 1910. Roles of economic forces, institutions, individuals, and groups in promoting or impeding effective change in American economy from 1790 to 1910. During this period technical skeleton of modern industrial structure was formed. Why and how American economy evolved into dual economy, characterized by center of firms large in size and influence and periphery of smaller firms. 141B. 1910 to Present. Dynamics of change in dual economy, P/NP or letter grading. 141A. 1790 to 1910. Roles of economic forces, institutions, individuals, and groups in promoting or impeding effective change in American economy from 1790 to 1910. During this period technical skeleton of modern industrial structure was formed. Why and how American economy evolved into dual economy, characterized by center of firms large in size and influence and periphery of smaller firms. 141B. 1910 to Present. Dynamics of change in dual economy, P/NP or letter grading. 141A. 1790 to 1910. Roles of economic forces, institutions, individuals, and groups in promoting or impeding effective change in American economy from 1790 to 1910. During this period technical skeleton of modern industrial structure was formed. Why and how American economy evolved into dual economy, characterized by center of firms large in size and influence and periphery of smaller firms. 141B. 1910 to Present. Dynamics of change in dual economy, P/NP or letter grading.

142A-142B-C. History of U.S. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Principal ideas about humanity and God, nature and society, that have been at work in American history. Sources of these ideas, their connections with one another, their relationship to American life, and their expression in great documents of American thought. P/NP or letter grading. 142C. History of Religion in U.S. (4) (Formerly numbered 142C.) (Same as Religion M142C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of religious dimension of people’s experience in U.S. Emphasis on aministration of number of religious traditions that have been important in this country, with emphasis on relating developments in religion to other aspects of American culture and contemporary world. P/NP or letter grading. 142D. American Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisites: courses 138B, 13C. Designed for juniors/seniors. Survey of American cultural history since 1860, with emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse groups of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. Evolution of national and global framework for mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.

143A-143B. Constitutional History of U.S. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical analysis of U.S. Constitution; significance of Marshall Court, and effects of slavery and Civil War on Constitution. 143B. Constitutionalism since Civil War. Particular emphasis on development of Supreme Court, due process revolution, Civil War and social changes, and fact of judicial supremacy within self-preserved limits. 144. America in World. (4) (Formerly numbered 144A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reconsideration of U.S. exceptionalist approach to national self-understanding by rereading crucial aspects of American history in more international context that goes well beyond foreign relations and international affairs to reconceptualize aspects of American economic, political, cultural, intellectual, and social history. Consideration of transnational flows of people, ideas, goods, wealth, and values as comparative studies of all these things and more. P/NP or letter grading.

145A-145B. U.S. Urban History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. U.S. Cities: Overview. Demographic, geographic, political, economic, and social development of U.S. cities in relation to broad trends in U.S. history as well as to their own more special histories. Emphasis on mastery of facts and chronology, and awareness of major theoretical issues and fundamental concepts in urban history. 145C. Urban History. Exploration of one aspect of U.S. urban history in depth without having to attend to basic chronology or geography. Topics include crime and police, urban economics, and urban politics. Students must complete primary research papers based on local materials in addition to written examinations. May be repeated for maximum of 16 units with topic and/or instructor change.

146A-146B. American Working Class Movements. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major episodes in social, trade union, and cultural history of American working class from Colonial times to present, with emphasis on both organized and unorganized labor, history of Knights of Labor, A.F. of L. and C.I.O., and development of labor politics. P/NP or letter grading.

146C-146D. U.S. and Comparative Immigration History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Use of overlapping diaspora model that integrates North Atlantic (Europe), South Atlantic (Africa-Caribbean), Pacific (China/Japan/Hawaii), and Latin (Mexico to Brazil) worlds to provide chronological and analytic survey of American and comparative immigration from 1775 to present. South from Southern California in course 146D. P/NP or letter grading.

147A-147B. American Social History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical analysis of American society and culture with emphasis on family, religious values, African-American life, women's work, urbanization and industrialization, immigration and nativism, and movements for social reform. P/NP or letter grading. 147A. 1750 to 1860; 147B. 1860 to 1920.

147C. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) (Same as Gender Studies M147B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of early American women from abolition of slavery and Civil War to rise and consequences of second-wave feminism. P/NP or letter grading.

149A-149B. North American Indian History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Inquiry into major episodes in social, trade union, and cultural history of American history. Focus on selected Indian peoples in each period. P/NP or letter grading. 149B. Precontact to 1830; 149B. 1830 to Present.

150A. Comparative Slavery Systems. (4) (Same as Afro-American Studies M150A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North American, Caribbean, and Latin American slave societies. P/NP or letter grading.

150B-M150C. Introduction to Afro-American History. (4-4) (Same as Afro-American Studies M150B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of African-American experience, with emphasis on three great transitions of Afro-American life: transformation from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieu. P/NP or letter grading.


151B. History of Chicano Peoples. (4) (Same as Chicano and Chicana Studies M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican heritage (i.e., Huasteco-Mulato) north of Rio through 17th, 18th, and 19th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican-American community by integrating major formative historical forces affecting community. Social structure, economy, labor, culture, political organization, conflict, and international relationships. Emphasis on political, class analysis, social, economic, and cultural development, ideas, domination, and resistance. Developments re-
lated to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, readings, assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

M151B. History of Chicano Peoples. (4) (Same as Chicana and Chicano Studies M159B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent in U.S. through 20th century, with focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical and policy issues affecting community. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, readings, assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

M151C. Understanding Whiteness in American History. (4) (Same as Chicana and Chicano Studies M158.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, construction, and representation of the American society. Readings and discussions trace evolution of "white" identity and explore its significance to historical construction of race class in American history. Letter grading.

M151D. Chicana History. (4) (Same as Chicana and Chicano Studies M159.) Lecture, four hours. Examination of Chicana history, looking closely at how practice of writing of history has placed Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican Period, American Revolution, and Chicano Movement to excavate untold stories about women's participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

M151E. Latino Metropolis: Architecture and Urbanism in Americas. (4) (Same as Chicana and Chicano Studies M158 and Gender Studies M157.) Lecture, four hours. Introduction to history of architecture and urbanism in Americas, from fabled cities of Aztec empire to Los Angeles. Focus on Latin America and Latinx. Emphasis on role of cities in Latin/Latino experience and uses of architecture and city planning to forge new social identities rooted in historic experiences. Topics include competition, construction, nationalization, and revolution. P/NP or letter grading.


153. American West. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of West as frontier and as region, in transit from Atlantic seacoast to Pacific, from 17th century to present. P/NP or letter grading.

154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, intellectual, and political development of California from earliest times to present. P/NP or letter grading.

M155. History of Los Angeles. (4) (Same as Chicana and Chicano Studies M155.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs beginning to present. Emphasis on diverse peoples of area, changing physical environment, various interpretations of city, and Los Angeles' place among American urban centers. P/NP or letter grading.

156. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes and/or major issues in U.S. history. P/NP or letter grading.

157A. Early Latin America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of American Indian history from conquest to independence, with emphasis on society, culture, and ethnic aspects. P/NP or letter grading.

157B. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social and cultural history of Indians of Mexico, especially central Mexico, from time of European conquest until Mexican independence. Three-hour, with emphasis on internal view of Indian groups and patterns on basis of records produced by Indians themselves. P/NP or letter grading.

159. Latin America in 19th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive analysis of economic, social, and political problems of Latin American nations from their independence to around 1910. P/NP or letter grading.

160A. Latin American Folklore. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of concept of permanent crisis to describe and explain structure of permanent revolution under one-party democracy. Analysis of central and 19th-century problems and crises that have influenced modern-day Mexico, if in modified form. P/NP or letter grading.

161. Topics in Latin American History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in history of Latin America. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

162A. Modern Brazil. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Selected topics in political, economic, social, and cultural development of Brazil, with emphasis on social and 19th-century problems and crises that have influenced modern-day Brazil, if in modified form. P/NP or letter grading.

162B. Brazil and Atlantic World, 1500 to 1822. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of development of colonial society in Brazil from discovery in 1500 to independence in 1822, placing it in context of Portugal's overseas expansion in Asia, Africa, and Americas. Emphasis on Portuguese, indigenous, and African roots of modern Brazil. P/NP or letter grading.

162C. History of Argentina. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of economic, political, social, and cultural developments that have shaped Argentina from colonial to present time. Emphasis on 19th-century development of agro-export economy and 20th-century formation of mass society. P/NP or letter grading.

M164A-164Z. Topics in African History. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, cultural, and political development of Africa through oral traditions, history, and scholarship. Topics include slavery; role of economic forces and institutions in promoting or inhibiting economic change in West Africa; critical analysis of economic systems and efforts at economic planning and development since 1950s. P/NP or letter grading.

164A. Africa and Slave Trade. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Survey of nondoctrinaries of early African history, with emphasis on oral traditions, history, and scholarship. Topics include slavery; role of economic forces and institutions in promoting or inhibiting economic change in West Africa; critical analysis of economic systems and efforts at economic planning and development since 1950s. P/NP or letter grading.

164C. Africa in Age of Imperialism. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Topics include penetration of precapitalist social formations by capital, emergence of classes, nature of colonial and postcolonial state, and struggle for national liberation in global context. P/NP or letter grading.

164D. Africa and Diaspora in Global and Comparative Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Forced migration of Africans through overseas slave trade was formative event of modern world. Examination of that experience and its lasting consequences by placing it in its global context — African, American, European, Islamic, and Asian. P/NP or letter grading.

165. Topics in African History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes and/or major issues in African history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

165SL. Service Learning and Historical Understanding in South Africa. (4) Fieldwork, six hours. Students participate in two service learning projects in South Africa to help them understand ongoing historical legacy of apartheid in South Africa, differences between urban and rural poverty, and link between rural poverty and urban overcrowding. Students work directly with families and children under guidance of local community organizers. Offered in summer only. Letter grading.

166A-166B. History of West Africa. (4) (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

166A. West Africa, Earliest Times to 1800; 166B. West Africa since 1800.

166C. Social and Economic History of West Africa since 1600. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of main currents of West African social, cultural, and economic history since fall of Songhai Empire. Emphasis on family values, education, urbanization, migrations, arts, slavery, and slave trade. Roles of economic forces and institutions in promoting or inhibiting economic change in West Africa; critical analysis of economic systems and efforts at economic planning and development since 1950s. P/NP or letter grading.

167A. History of Northeast Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Ethni-
opedia, Sudan, and Somalia in regional context of north-east Asia from earliest times to present, with emphasis on economy and society, evolution of state, and significance of Christianity and Islam. P/NP or letter grading.

167B. History of East Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Described for juniors/seniors. Attention to social and economic as well as political aspects. P/NP or letter grading. Designed for juniors/seniors. Survey of history of central Africa from earliest times, with emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

168A-168B. History of Southern Africa. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Attention to social and economic as well as political aspects. P/NP or letter grading. Designed for juniors/seniors. Survey of history of central Africa from earliest times, with emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

171. Variable Topics in Japanese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Important topics in Japanese history, including change, economic development, social questions, and popular culture, as well as media and arts, explored through extensive readings. P/NP or letter grading.

172A-172B. 17th-Century Japan. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from prehistory to present in terms of identity. Designed for juniors/seniors. History of overseas Indians; community transformations of Hindum in diaspora; emergence of new diasporic art forms such as bhangra rap and chutney music; religious and cultural exchanges between Indians and other racial and ethnic groups; Indian women as embodiments of Indian culture; diasporic identities. P/NP or letter grading.

175B. Indian Identity in U.S. and Diaspora. (4) (Same as American Studies M172A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indians; community transformations of Hindum in diaspora; emergence of new diasporic art forms such as bhangra rap and chutney music; religious and cultural exchanges between Indians and other racial and ethnic groups; Indian women as embodiments of Indian culture; diasporic identities. P/NP or letter grading.

176. Premodern Vietnamese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, cultural, and political history of Vietnamese societies from Spanish conquest through independence. Emphasis on questions of identity under colonialism, understanding of Revolutions of 1986 and 1989, and politics of Vietnamese nationalism. P/NP or letter grading.

176A-176B. History of Southeast Asia. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. Designed for juniors/seniors. Survey of history and culture of Vietnam from about 2000 B.C. to present, including political, social, and economic developments and the cultural and political relationships in post-1954 period. P/NP or letter grading.
179B. History of Medicine: Foundations of Modern Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, scientific, and social context that shaped modern medicine from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and modern clinical medicine, mapping of human body, medical approach to mental health, and development of anatomo-clinical method at Paris School. P/NP or letter grading.

179C. Medicine and Society in 19th-Century America. (3) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Therapeutics, theories of disease, and medical science scrutinized with understanding that these are never neutral but are shaped by the structures of which they are products. Why have doctors become so powerful and over whom did they wield power in 19th century? P/NP or letter grading.

180A. Topics in History of Science. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include science and colonialism, science and religion, environmental history, science in Enlightenment, development of early modern science, science and public policy, public nature of science. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.


181. Topics in Jewish History. (4) (Same as Jewish Studies M181B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics vary from year to year and include religion of Veda; Brahmanism; (later) Hinduism; Near East; nonliterate traditions of India and Southeast Asia. P/NP or letter grading.

181A, 181B, 181C. Jewish History. (4) (Same as Jewish Studies M181B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492, followed three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Medieval Period. Examination of some of most important currents and figures in Jewish intellectual history from 18th century to present.

182C. Spirit of Secularism: Jewish Cultures in Secular Age. (4) (Same as Jewish Studies M182G.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of emergence of distinct forms of Jewish culture in modern age, particularly those that challenge traditional forms of Jewish religious culture (e.g., laws, customs, or rituals). P/NP or letter grading.


184A. Jewish Civilization: Encounter with Great Worlds. (4) (Same as Jewish Studies M184A and Religion M184A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and millennia-old interaction of Jews with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. P/NP or letter grading.

184B. History of Anti-Semitism. (4) (Same as Jewish Studies M184B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of origins and historical development of anti-Semitism. P/NP or letter grading.

184C. American Jewish Experience. (4) (Same as Jewish Studies M184C) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in America, both historical and contemporary. P/NP or letter grading. M184D. American Jewish Experience, 1948 to Present. (4) (Same as Jewish Studies M184D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948 to present. P/NP or letter grading.

185A. History of Religions: Myth. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Nature and function of myth in history of religion and culture. Examples selected from nonliterate as well as from other Asian and European traditions. P/NP or letter grading.

185B. Religions of South and Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). P/NP or letter grading. 185A. Designed for juniors/seniors. Topics vary from year to year and include religion of Veda; Brahmanism; (later) Hinduism. Consult Schedule of Classes for specific course offered. May be taken independently for credit. P/NP or letter grading.

185C. Religions of South and Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). P/NP or letter grading. 185A. Designed for juniors/seniors. Topics vary from year to year and include Buddhism in India; religions of Java and Bali; nonliterate traditions of India and Southeast Asia. Consult Schedule of Classes for specific course offered. May be taken independently for credit. P/NP or letter grading.

185D. Religions of Ancient Near East. (4) (Same as Ancient Near East M185D and Religion M185D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main polytheistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to religious and political developments of ancient Israel; varying concepts of divinity, hierarchies of gods, prayer and cult, magic, wisdom, and moral conduct. P/NP or letter grading.

185E. Special Topics in History of Religions. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics announced in Schedule of Classes and include ancient Hinduism; Buddhism; religions of tribal India; goddesses; religions in Southeast Asia. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M186A. History of Early Christians. (4) (Formerly numbered 186A.) (Same as Religion M186A.) Lecture, three hours; discussion, one hour (when scheduled). 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 Nazareth. P/NP or letter grading. Produced during this period, movement's encounters with its religious, social, and political world, and methods of research. P/NP or letter grading.

M186B. Religious Environment of Early Christians. (4) (Formerly numbered 186B.) (Same as Religion M186B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Religious diversity in religious practice and thought in Mediterranean world of 1st century C.E. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M186C. Jesus of Nazareth in Historical Research. (4) (Formerly numbered 186C.) (Same as Religion M186C) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M186A. Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, this course guides students in research (in translation) of various multilayered sources for reconstruction of life, teaching, and initial impact of Jesus of Nazareth in his social, economic, political, and religious context. P/NP or letter grading.

M187A. Global Feminism, 1850 to Present. (4) (Same as Gender Studies M187A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to movements for women's rights (educational, political, economic, sexual, and reproductive) around world and over one and one-half centuries. P/NP or letter grading.

188. Special Courses in History. (4) Lecture, three hours. Departmentally sponsored experimental or temporary courses, subject to approval by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.


M191DC. CAPP Program in Washington, DC, Research Seminars. (8) (Same as Political Science M191DC and Sociology M191DC) Seminar, three hours; laboratory, 24 hours. Limited to CAPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with importance of quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.
M194DC. CAPPAP Washington, DC, Research Seminars. (4) (Same as Political Science M194DC and Sociology M194DC) Seminar, three hours. Limited to CAPPAP Quarter in Washington students and other students enrolled in UC Washington center programs. Seminars for undergraduate students in Center for American Politics and Public Policy's program in Washington, D.C. Focus on development and execution of original empirical research based on experiences from Washington, D.C.-based field placements. Study of research methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195. Community or Corporate Internships in History. (4) Directed Research in History. May be repeated for credit for a maximum of 16 units. Individual contract required. In supervision of faculty member. May be repeated for a maximum of 16 units. Individual contract required. P/NP grading.

195CE. Community and Corporate Internships in History. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours per week. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete written assignments, attend biweekly seminars with graduate students, and write final paper research. Faculty sponsor and graduate student mentor construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. P/NP grading.

M195DC. CAPPAP Washington, DC, Internships. (4) (Same as Political Science M195DC and Sociology M195DC) Tutorial, four hours. Limited to junior/senior CAPPAP Program interns. Internships in Washington, D.C., for American Politics and Public Policy students. Meet on regular basis with instructor and provide periodic reports of their experiences. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in History. (4) Tutorial, three hours. Limited to juniors/senior. Limited intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and assignments that examine issues related to internship site. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in History. (4) Tutorial, to be arranged. Course 198A is requisite to 198B, which is requisite to 199C. Limited to juniors/senior. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

198B. Honors Research in History. (4) Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/senior. Continued development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

198C. Honors Research in History. (4) Tutorial, to be arranged. Requisite: course 198B. Limited to juniors/senior. Completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in History. (4) Tutorial, three hours. Limited to juniors/senior. Supervised individual research or investigation under guidance of faculty member with graduate student or project director. May be repeated for credit; History majors limited to 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200C. Advanced Historiography. (4 each) Seminar, three hours. May be repeated for credit. 200A. Ancient Greece; 200B. Ancient Rome; 200C. Medieval; 200D. Europe; 200H. U.S.; 200L. Latin America; 200J. Near East; 200L. India; 200U. China; 200V. Comparative Historical Analysis of China and the Near East; 200W. History of Religions; 200L. Theory of History; 200R. Jewish History; 200S. Armenia and Caucasus; 200T. Southeast Asia; 200U. Psychohistory.

M200V. Advanced Historiography: Africa and America. (4) (Same as Afro-American Studies M200V) Seminar, three hours. May be repeated for credit.

M200W. Advanced Historiography: American Indian Peoples. (4) (Same as American Indian Studies M200W) Lecture, 90 minutes. May be repeated for credit. Introduction to culture-histories of North American Indians and review of Indian concepts of history. Steeple-topical approach to content and methodologies related to Indian past that is interdisciplinary and multi-cultural in its scope. Letter grading.


200Y. Advanced Historiography: Application of Economics to History, three hours.

200Z. Advanced Historiography: Chicanos. (4) Discussion, three hours. Graduate survey of leading literature in Chicanos history, with emphasis on new methodological and theoretical approaches to the field.

201A-201V. Topics in History. (4 each) Seminar, three hours. Graduate courses involving reading, lecturing, and discussion of selected topics. May be repeated for credit. When concurrently scheduled with courses listed, undergraduate consent 191 required. Instructor to enroll. S/U or letter grading. 201A. Ancient Greece; 201B. Ancient Rome; 201C. Medieval; 201D. Early Modern Europe; 201E. Modern Europe; 201F. Russian Empire; 201G. U.S.; 201H. Latin America; 201J. Near East; 201L. China; 201M. Japan; 201N. Africa; 201O. Science and Technology; 201P. History of Religions; 201Q. Theory of History; 201R. Jewish History; 201S. Armenia and Caucasus; 201T. Southeast Asia; 201U. Psychohistory; 201V. Digital History.

202A-202B. Seminars: Comparative Modern Economic History. (4-4) Seminar, three hours. Course 202A is requisite to 202B. Describes several graduate student projects. Study of problems of modern economics in the 19th and 20th centuries, including such topics as industrialization, growth, demography, development, and economic change. In Progress (202A) and letter (202B) grading.

M203A-M203B. Social Theory and Comparative History (4-4) (Same as Political Science M203A-M203B) Lecture, Sociology M296A-M296B. Seminar, three and one-half hours every other week. Introductions to historically rooted societal theory and theoretical sensitivity, following program of Center for Social Theory and Comparative History. Each course may be taken independently for credit. S/U or letter grading.

M203C. Theories in Cultural History. (4) (Same as Sociology M203C) Discussion, three hours. Introductions to social, linguistic, semiotic, or other new interpretive theories and practices developed in other fields and applied to historical material. Letter grading.

M207. Seminar: Ancient Mesopotamia. (4) (Same as Ancient Near East M207) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. May be repeated for credit.

CM209. Israeli Legal History. (1 to 5) (Same as Law M336) Lecture, three hours. Israel is a settler society inspired by utopian ideology but based on war and violence. Like U.S., it is imperfect democracy committed to notions of equality yet divided along lines of gender, and ethnic lines. Law plays role in shaping identity, framing political discourse, and mediating social conflicts. How do law and society interact in Israel and how can Israeli experience illuminate themes common to both jurisdictions? Introduction to Israeli history and legal history, with focus on themes: late Ottoman, British mandate, and first two decades after Israeli independence. Topics include legal reforms in late Ottoman period, reception of English law after British conquest, law and national identity, post-independence legal change and continuity, for malism and rights discourse, ethnic conflict and land law, influence of political ideologies on commercial law, religion and law, and gender and family law. In developing historical memory (Holocaust). Concurrently scheduled with course C109C. S/U or letter grading.

M210. Topics in Ancient Iranian History. (4) (Same as Ancient Near East M208 and Iran M210) Seminar, three hours. May be repeated for credit. S/U or letter grading.

211A-211B. Seminars: Armenian History. (4-4) Seminar, three hours. Course 211A is requisite to 211B. In Progress (211A) and letter (211B) grading.

212. Methods in Armenian Oral History. (4) Seminar, three hours. Uses and techniques of oral research; preinterview, interview, and postinterview procedures; methods of compilation and evaluation. Field assignments, interviews, and oral history site reports based on interviews. S/U or letter grading.

214. Topics in World History. (4) Discussion, three hours. Graduate seminar utilizing world-historical perspective to examine variety of major topics from human history. Topics vary annually. Letter grading.

215A-215B. Seminars: Ancient History. (4-4) Seminar, three hours. Course 215A is requisite to 215B. In Progress (215A) and letter (215B) grading.

216A-216B. Seminars: Byzantine History. (4-4) Seminar, three hours. Course 216A is requisite to 216B. In Progress (216A) and letter (216B) grading.

217. Sources and Handbooks of Medieval History. (4) Seminar, three hours. Preparation: reading knowledge of German or French. Introduction to types of medieval source materials and the handbooks needed to use them.

M218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as Classics M218, English M215, and French M210) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgements regarding place of subject in its context, (2) provide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between medieval and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

221A-221B. Seminars: Medieval History. (4-4) Seminar, three hours. Course 221A is requisite to 221B. In Progress (221A) and letter (221B) grading.

225. Colloquium for Entering Graduate Students in Modern European History, (4) Seminar, three hours. Normally limited to and required of all modern European history graduate students. Introduction to topics, methods, and historiography of modern European history.

226A-226B. Seminars: Italian Renaissance. (4-4) Seminar, three hours. Course 226A is requisite to 226B. In Progress (226A) and letter (226B) grading.

227A-227B. Seminars: Reformations. (4-4) Seminar, three hours. Course 227A is requisite to 227B. In Progress (227A) and letter (227B) grading.

229A-229B. Seminars: Early Modern European History. (4-4) Seminar, three hours. Course 229A is requisite to 229B. In Progress (229A) and letter (229B) grading.

M320A-M320B. Seminars: Modern European History. (4-4) (Same as Art History M241A-M241B) Seminar, three hours. Course 320A is requisite to M320B. May be repeated for credit with consent of adviser. In Progress (M320A) and letter (M320B) grading.
231A-231B. Seminars: Modern European Intellec-
tual and Cultural History. (4-4) Seminar, three 
hours. Course 231A is requisite to 231B. In Progress 
(231A) and letter (231B) grading.

232A-232B. Seminars: French History of 19th and 20th 
Centuries. (4-4) Seminar, three hours. Course 
232A is requisite to 232B. In Progress (232A) and 
letter (232B) grading.

233A-233B. Seminars: Russian/Soviet History. (4-
4) Seminar, three hours. Course 233A is requisite to 
233B. In Progress (233A) and letter (233B) grading.

234A-234B. Seminars: Modern History of Spain, 
Portugal, and Italy. (4-4) Seminar, three hours. 
Course 234A is requisite to 243B. In Progress (234A) 
and letter (234B) grading.

235A-235B. Economic History of Europe, 1790 to 
1939. (4-4) Seminar, three hours. Course 235A is 
requisite to 235B. Analysis of internationalization of 
European world economy, emergence of Western 
core and its relation with European peripheries. 
Comparative analysis on different regions, stressing 
main characteristics of postwar European economy. 
In Progress (235A) and letter (235B) grading.

235C-235D. Economic History of 20th-Century Eu-
rope. (4-4) Seminar, three hours. Course 235C is 
requisite to 235D. Cyclical trend, various economic re-
gimes, and domestic and foreign policies of Europe. 
In Progress (235C) and letter (235D) grading.

M236A. Proseminar: Political Psychology. (4) 
(Same as Political Science M261A and Psychology 
M228A.) Seminar, three hours. Introduction to political 
psychology: psychobiography, personality and poli-
tics, mass attitudes, group conflict, political communi-
cation, and elite decision making.

236B-236C. Seminars: Psychohistory. (4-4) Semi-
nar, three hours. Course 236B is requisite to 236C. 
Exploration of individual and group psychological pro-
cesses and their uses in historical research. In Prog-
rss (236B) and letter (236C) grading.

239A-239B. Seminars: English History — Middle 
Ages. (4-4) Seminar, three hours. Course 239A is 
requisite to 239B. In Progress (239A) and letter 
(239B) grading.

240A-240B. Seminars: English History — Modern 
History. (4-4) Seminar, three hours. Course 240A is 
requisite to 240B. In Progress (240A) and letter 
(240B) grading.

241A-241B. Seminars: German History. (4-4) Semi-
nar, three hours. Course 241A is requisite to 241B. 
Designed for graduate students. In Progress (241A) 
and letter (241B) grading.

242. Colloquium: European History. (2) Designed 
for graduate students. Forum for critical discussion of 
work of students and invited scholars. Presentation of 
student dissertation prospects during their third or 
fourth year in residence. S/U grading for students pre-
senting papers.

244A-244B. Seminars: British Empire History. (4-
4) Seminar, three hours. Course 244A is requisite to 
244B. In Progress (244A) and letter (244B) grading.

245. Colloquium: U.S. History. (4) Seminar, 
three hours. Normally limited to and required of all 
entering graduate students in U.S. history. Critical 
troduction to historical method, with emphasis on new method-
ological approaches; content of courses, including 
source materials, and current state of U.S. historiography.

246A-246B-246C. Introduction to U.S. History. (4-
4-4) Seminar, three hours. Graduate survey of signifi-
cant literature dealing with U.S. history from the Colo-
nial period to the present. Each course may be taken 
individually for credit. 246A, Colonial Period; 246B, 
1790 to 1910; 246C, 20th Century.

247A-247B. Seminars: Early American History. (4-
4) Seminar, three hours. Course 247A is requisite to 
247B. In Progress (247A) and letter (247B) grading.

249A-249B. Seminars: Jacksonian America. (4-
4) Seminar, three hours. Course 249A is requisite to 
249B. In Progress (249A) and letter (249B) grading.

250A-250B. Seminars: U.S. History of Middle 19th 
Century. (4-4) Seminar, three hours. Course 250A is 
requisite to 250B. In Progress (250A) and letter 
(250B) grading.

251A-251B. Collaborative Research Seminars: 
American History. (4-4) Seminar, three hours. Re-
search seminars taught jointly by two faculty members. 
In Progress (251A) and letter (251B) grading.

251A. Common readings and development of individual re-
search projects. 251B. Requisite: course 251A. Re-
search, writing, and critical discussion of draft papers.

252A-252B. Seminars: Recent U.S. History to 
1930. (4-4) Seminar, three hours. Course 252A is 
requisite to 252B. In Progress (252A) and letter 
(252B) grading.

253A-253B. Recent U.S. History since 
1930. (4-4) Seminar, three hours. Course 253A is 
requisite to 253B. In Progress (253A) and letter 
(253B) grading.

254A-254B. Seminars: U.S. Social and/or Intellec-
tual History. (4-4) Seminar, three hours. Course 
254A is requisite to 254B. In Progress (254A) and let-
ter (254B) grading.

255A-255B. Business Enterprise and American 
Culture. (4-4) Seminar, three hours. Course 255A is 
requisite to 255B. In Progress (255A) and letter 
(255B) grading.

256A-256B. Seminars: America in World. (4-
4) Seminar, three hours. Course 256A is requisite to 
256B. In Progress (256A) and letter (256B) grading.

257A-257B. Seminars: U.S. Urban History. (4-
4) Seminar, three hours. Course 257A is requisite to 
257B. In Progress (257A) and letter (257B) grading.

258A-258B. Seminars: Working Class History. 
(4-4) Seminar, three hours. Course 258A is requisite to 
258B. In Progress (258A) and letter (258B) grading.

M259A-M259B. History of Women. (4-4) 
(Same as Gender M259A-M259B.) Seminar, 
three hours. Course M259A is requisite to M259B. 
History of women's social and political issues seen in U.S., 
and comparative context. In Progress (M259A) and 
letter (M259B) grading.

(4-4) Seminar, three hours. Course 260A is requisite to 
260B. In Progress (260A) and letter (260B) grading.

M260C. Native American Revitalization Move-
ments. (4) (Same as Anthropology M260C.) Lecture, 
two hours; discussion, one hour. Examination of revi-
talization movements among native peoples of North 
America (north of Mexico). Specific revitalization in-
cludes Handsome Lake, 1870 and 1890 Ghost Danc-

M260D. Native American Historical Demography. 
(4) (Same as Anthropology M287Q.) Lecture, two 
hours; discussion, one hour. Examination of popula-
tion history of Native Americans north of Mexico prior 
to and following contacts with Europeans, Africans, 
and others, circa 1492. Emphasis on number of 
American Indians and other Native Americans, their 
decline following European contact, and their recent 
resurgence. Letter grading.

(4-4) Seminar, three hours. Course 261A is requisite to 
261B. Social and political history of the Afro-Ameri-
can, including emphasis on development and struc-
ture of race relations in America; racial concepts and 
dilemmas, black and white. In Progress (261A) and 
letter (261B) grading.

262A-262B. Seminars: Chicano History. (4-
4) Seminar, three hours. Course 262A is requisite to 
262B. In Progress (262A) and letter (262B) grading.

(4-4) Seminar, three hours. Course 263A is requisite to 
263B. In Progress (263A) and letter (263B) grading.

M264. History of American Education. (4) 
(Same as Education M201C.) Discussion, three hours. 
History of educational thought and of social forces imping-
ing on American education from 1880s to present. 
Analysis of recent developments, ideas and forces, 
and aims and practices of American education today.
History/Art History
Interdepartmental Program
College of Letters and Science

UCLA
100 Dodd Hall
Box 951417
Los Angeles, CA 90095-1417

(310) 825-3992
fax: (310) 206-1903
http://www2.humnet.ucla.edu/ahidp/index.php

Steven D. Nelson, Ph.D., Chair

Faculty Committee
Robert L. Brown, Ph.D. (Art History)
Ronald J. Meier, Ph.D. (History)
Steven D. Nelson, Ph.D. (Art History)
Debora L. Silverman, Ph.D. (Art History, 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
The UCLA Academic Senate approved the establishment of the interdepartmental program and major in History/Art History effective Spring Quarter 2009. Students already admitted to the major have until the end of Spring Quarter 2013 to complete the requirements for the B.A. degree. Students interested in combining courses in history and in art history may consider a major in one of the two academic disciplines and a minor in the other, or a double major in History and in Art History.

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. Each course 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) 825-3992.

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
Transfer applicants to the History/Art History major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to A.A.; 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.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: One course from History 97A through 97O or 100; one course from 191A through 191O or 197; and courses as indicated in the following groups:


Group F: Two art history elective courses selected from the above lists. Students may also take Art History 100, C103A, C103B, C103C, 127, 197, 199 to meet this requirement

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 an 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 art history courses 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.

To qualify for graduation with honors, students must (1) complete all requirements for the major; (2) have a cumulative grade-point average
Honors Collegium
College of Letters and Science
UCLA
A311 Murphy Hall
Box 951414
Los Angeles, CA 90095-1414
(310) 825-1553
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Robert A. Gurval, Ph.D., Chair

Faculty Committee
Esteban C. Dell’Angelica, Ph.D. (Human Genetics)
Robert A. Gurval, Ph.D. (Classics)
Gail Kligman, Ph.D. (Sociology)
Daniel H. Lowenstein, LL.B. (Law)
Jeffrey H. Miller, Ph.D. (Microbiology, Immunology, and Molecular Genetics)
Zrinka Stahuljak, Ph.D. (French and Francophone Studies)
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 innovative ways of presenting scientific data and design scholarly exchange across the 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. Some courses satisfy general education requirements and serve as preparation for numerous majors in the College of Letters and Science. Counselors are available in the Honors Programs Office, A311 Murphy Hall, to advise and help students plan an integrated academic program.

Honors Collegium
Lower Division Courses
1. Plague Culture. (6) Seminar, three hours. Study of epidemics and metaphors of plague in Western culture from ancient into age of AIDS. Topics include scripture, ancient tragedy, Black Death, realist novel, high aesthetic metaphors of plague, Nazi propaganda, existential and absurdist thought, postwar cinema, contemporary American theater, and modern science and medicine. P/NP or letter grading.

2. Comparative Genocide. (4) Lecture, four hours; discussion, one hour. Social comparative study of genocide, combining theoretical concepts with case studies (such as Armenia, the Holocaust, American Indians, Uganda under Amin and Oboe, etc.). P/NP or letter grading.

3. Immigrants and American Dream. (5) Seminar, three hours. Study of process of attaining 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.

4. Representing Cleopatra: History, Drama, and Film. (5) Seminar, three hours. Examination of legendary queen of Egypt as seen by her contemporary sources, and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her in literary, visual, and cinematic representations. P/NP or letter grading.

5. Energy Issues: Before and Now. (5) Seminar, three hours. Review of physics and chemistry of concepts of energy, history over ages of turning of discoveries into products in this area, including use of fossil fuel, and discussion of current energy issues, including alternative energies. P/NP or letter grading.

6. Saint and Heretic: Joan of Arc and Gilles de Rais, History and Myth. (5) Seminar, three hours. Examination of both history of Joan of Arc and Gilles de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. P/NP or letter grading.

7. Visual Communication and Scientific Principles. (5) Seminar, four hours. Opportunity for collaboration between those in science-related disciplines and those in arts/ humanities-related disciplines. New ways in which science can be visually communicated, using tools, techniques, and media that are typically outside science education. Science students learn innovative ways of presenting scientific data and design and media; media students learn how design and artists may elaborate their skills to topics they might not usually address. P/NP or letter grading.


11W. Postmodern Culture. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3Hr or English as a Second Language 36. Exploration of theories and art (literature, music, film, fine art) that emerged after World War II in what has come to be known as postmodern era. Art criticizes master narratives of earlier age and fosters fragmentation, skepticism toward universal truth, commodification of knowledge, media creating reality, and globalization in industry and society. Satisfies Writing II requirement. Letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) Seminar, three hours. Exploration of cultural and literary development in India from early religious poetry (prior to 1000 B.C.) to broad range of literary styles and diverse religious and philosophical movements including classical, medieval, and premodern period. P/NP or letter grading.

14. Interaction of Science and Society. (4) Seminar, four hours. Examination of interaction of science and society and effects of this interaction on history, development of sociocultures, evolution of revolutionary ideas as modeled in Galileo, Darwin, and others, and selected contemporary issues such as genetic engineering and war against infectious diseases. P/NP or letter grading.

15. Acting Myth. (4) Seminar, three hours. Interdisciplinary approach to literature and acting through study of texts and mythologies from variety of Indo-European and Near Eastern. Students learn acting techniques in directed scenes from the texts. P/NP or letter grading.


17. Art, Entertainment, and Social Change. (5) Seminar, three hours. Designed for College Honors students. Integrative examination of evolving impact of arts and entertainment industry on such various aspects of social change as environmental movements, politics and elections, politics, and 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.

18. Trial of Socrates. (5) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

19. What Is This Thing Called Science?: Nature of Modern Science. (5) Lecture, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3Hr or English as a Second Language 36. Study of early and middle 20th-century’s attempt to construct significance in a general climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

22. Comparative Odysseys. (5) Seminar, three hours. Designed for College Honors students. Greek and Chinese classics have in common two modes of heroism: one glorifying prowess and another celebrating mental cunning. Both modes are associated principally with men motivated by piety and honor. Interrogation of these traditional constructions of heroic, particularly conflation of courage and violence. Readings include Writer as Migrant by Jin Ha, Odyssey by Homer, Journey to West by Anthony Yu, Tripmaster Monkey by Maxine Kingston, and Ignorance by Milan Kundera. P/NP or letter grading.

23. Political Dissidence Today and in Ancient Greece: Trial and Death of Socrates in its Classical and Legal Context. (5) Seminar, three hours. Study of trial and death of Socrates by examining its relevance today to legal treatment of dissent and civil disobedience in the U.S. and to variety of contemporary theories and strategies of dissent. Introduction to Greek legal system, values that animated that system, and new ways to think about roles of law. P/NP or letter grading.

24. Three African Civilizations. (5) Seminar, four hours; film viewing, two hours. Study of development of three major African civilizations through their arts, with focus on arts of Mali, Ethiopia, and Kongo from about 100 B.C.E. to present. P/NP or letter grading.

25. Representing Medicine: Art, Literature, and Film. (5) Seminar, four hours. Limited to Freshman Summer Program students. Exploration of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of doctor/patient relations, healthcare sites and circumstances, aging, 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 how creation, distribution, consumption, and dissolution of social and political relations are modulated through exchange of gifts and/or commodities in different contexts and different societies. P/NP or letter grading.

30. Vietnam War and American Culture. (4) Seminar, three hours. Cultural, social, and political implications of the Vietnam War on American society through examination of photographs, journalism, personal narratives, political commentary, drama, and fiction. P/NP or letter grading.

31. Numbers: Their Meaning and Psychology. (5) Seminar, three hours. Designed for College Honors students. Interplay between linguistics and psychology, with particular focus on numbers. Examination of diversity of numerical practice and dissolution of socially constructed meaning as it is expressed in multiplicity of languages. Discussion of current research on neurobiological perspectives, including study of how cultures have perceived time, how societies have organized themselves with time, how groups have clashed over time's definition and measurement, and how academics in various disciplines have perceived time. P/NP or letter grading.

40W. Transformations of Cultural Stories across Disciplines and Texts. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Tracing writing by journalists and scientists on variety of topics. Study of how creation, maintenance, and dissolution of social and political relations are modulated through exchange of gifts and/or commodities in different contexts and different societies. P/NP or letter grading.

44. Drugs in Society: Interdisciplinary Perspective. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Print and electronic genres, both mainstream and alternative, as well as the study of rhetoric of popularization and of canonization. Former defines what happens when esoteric knowledge travels to nonspecialist readers; latter explains how external information becomes institutionalized. Satisfies Writing II requirement. Letter grading.

45. Political Theory. (5) Seminar, three hours. Discussion of political theory and its relationship to performance and culture in 19th and 20th centuries. Study of theorists such as Saussure, Wittgenstein, Stanley Cavell, Judith Butler, and others, playwrights such as Wilde, Stein, and Samuel Beckett, and films such as "His Girl Friday" and "Monkey Business." P/NP or letter grading.

49. Evidence in Law, Science, History, and Journalism. (4) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Print and electronic genres, both mainstream and alternative, as well as the study of rhetoric of popularization and of canonization. Former defines what happens when esoteric knowledge travels to nonspecialist readers; latter explains how external information becomes institutionalized. Satisfies Writing II requirement. Letter grading.

50. Writings of Science. (6) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Study and practice of science writing in popular domain in way that integrates science writing with teaching of writing arts; study includes writings by journalists and scientists on variety of topics. Satisfies Writing II requirement. Letter grading.

51. Music and Society. (5) Seminar, four hours. Minimal experience required, but desirable but not required. Analysis of Western art music, with focus primarily, but not exclusively, on music of late-18th through early-20th centuries through multiple analytical prisms: sociological, historical, political, and musical. P/NP or letter grading.

53. American Folk Music, Protest, and Identity. (5) Seminar, three hours. Study of American folk music as 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. Enforced requisite: 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.

57. Language, Performance, and Culture. (5) Lecture, three hours. Mixture of lecture and discussion on topic of language and its relationship to performance and culture in 19th and 20th centuries. Study of theorists such as Saussure, Wittgenstein, Stanley Cavell, Judith Butler, and others, playwrights such as Wilde, Stein, and Samuel Beckett, and films such as "His Girl Friday" and "Monkey Business." P/NP or letter grading.

58. Time in Society and History. (5) Seminar, four hours. Examination of concept of time from sociological, philosophical, anthropological, and physical perspectives, including study of how cultures have perceived time, how societies have organized themselves with time, how groups have clashed over time's definition and measurement, and how academics in various disciplines have perceived time. P/NP or letter grading.

59. Literature and Culture of the American South. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Examination of historical imagination as it is expressed in such writers as William Faulkner, Allen Tate, Flannery O'Connor, Richard Wright, and Zora Neale Hurston, and in Civil War and WPA/SSA photography; and in Southern rhetoric and political documentary. Satisfies Writing II requirement. Letter grading.

62. Community and Self-Interest in History of American Culture. (6) Seminar, three hours. Exploration of historical origins of frequently contradictory values that inform American thought and culture: hierarchical and equalitarian, institutional constraints and voluntarism, collective sense of mission and belief in autonomous individual. P/NP or letter grading.

64. Neuroscience and Psychology of Art and Biology of Aesthetics. (5) Seminar, three hours. Interdisciplinary approach to study of premise that beauty, whether of faces, art works, or other subjects, is processed by brain and can be understood as neurologically and psychological phenomenon. P/NP or letter grading.

70. Genomic Engineering in Medicine, Agriculture, and Law. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for Life Sciences 3 or 4 or Microbiology 7. Historical and scientific story of genetically engineered food, agriculture, and law, including examination of social, ethical, and legal issues raised by new technology. P/NP or letter grading.

70AL. Gene Discovery Laboratory. (5) Seminar, three hours; laboratory, five hours. Recommended corequisite: course 70A. Laboratory work in genomics requires hands-on discussion of fundamental experimental concepts and techniques taught in course 70A. P/NP or letter grading.

71. Cross-Cultural Approaches to Media History and Theory. (5) Seminar, four hours. Examination of media, media history, and media culture from cross-cultural perspective, one that demands redefinition of media and understanding of art in cross-cultural context. P/NP or letter grading.

73. Elementary Particles in the Universe. (4) Lecture, two hours; discussion, 90 minutes. No special mathematical knowledge required. Examination of elementary particle physics, including 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.

77. Writing Numbers. (5) Seminar, four hours. Not open to students with credit for introductory statistics. Whether it be to convince about lack of government support for arts, or global warming, or risks of living in high crime areas, statistical literacy promotes effective citizenship and social power. To read narratives (in media, academic journals, etc.) supported by statistical data with critical eye, how to research and assess integrity of statistical evidence, and how to write persuasive articles supported by statistical data. P/NP or letter grading.

80. Genomics and Boundaries of Self. (5) Seminar, three hours. Study of impact that knowledge of entire human genome sequence has on our concepts of ourselves 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 philosophies, metaphysical beliefs, 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 community organizing. In addition to exercises in the whole area, with projects from Community Outreach Partnership Center within School of Public Policy and Social Work, P/NP or letter grading.

83W. Politics and Rhetoric of Literature. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Examination of relationships among political, legal, and social issues in a study of literature from classical times to the present, broadening into general discussions of development of political discourse in Western thought, particularly conflict between self and state, between ideology and the practical business of living. Satisfies Writing II requirement. Letter grading.

84. Conflicts between Languages. (5) Seminar, three hours. Introduction to potentially conflict-ridden language situation in three cultures. Focus on writing and discussion of various aspects of minority languages in the U.S. P/NP or letter grading.

86. Psychology of Fear. (5) Seminar, three hours; fieldwork, one hour. Examination of phobias, including inquiry into how people are distressed by intense fear, examination of structures and processes of irrational fears, and discussion of courage and fear reduction strategies. P/NP or letter grading.

Upper Division Courses

101A. Student Research Forum. (2) Lecture, one hour; workshop, two hours. Corequisite: course 99. Designed to promote broad and deep understanding of university research, including plenary lectures on research methods and workshops on research searches, research abstracts, and laws and regulations governing research. P/NP grading.
101B. UCLA Undergraduate Science Journal. (2) Seminar, two hours. For students on editorial board of annual UCLA Science Journal, including study of writing in the sciences and honing of editing and production skills. May be repeated once for credit. P/NP grading.

101C. UCLA Undergraduate Journal for Humanities. (2) Seminar, two hours. For students on editorial board of annual Westwind journal of undergraduate research and writing, including study of writing in various disciplines and honing of editing and production skills. May be repeated once for credit. P/NP grading.

101D. Counseling Multicultural Communities. (2) Seminar, two hours. Study of issues of culture and identity in cross-cultural counseling, including development of working model. P/NP grading.

101E. Leading Undergraduate Seminars. (2) Seminar, two hours. Limited to students who have been accepted into Undergraduate Student Initiated Education (USIE) program. Learning and exploration of issues that are integral to developing seminars and development of skills to become effective student facilitators. Practical teaching strategies and techniques, as well as pedagogical, organizational, and technical concerns, presented by new instructors. Discussion of key topics, followed by discussion of syllabi that students are developing for their seminars and conducting of micro-teaching presentations. Guest speakers expand on topics that arise from class discussions. P/NP grading.

101F. Integrity in Research. (2) Seminar, two hours. Discussion about integrity in research, current thinking in field, and important ethical issues that impact scientific investigation. P/NP grading.

101G. Graduate School Preparation. (2) Seminar, two hours. Designed to help AAP students familiarize themselves with academic disciplines they would like to pursue in graduate school. Through course readings, guest speakers, and interactive assignments, students learn more about their graduate school options and how to navigate application process. P/NP grading.

101H. Information and Research in Social and Behavioral Sciences. (2) Lecture, two hours; activity, two hours. Development of various and deeper understandings of information access and retrieval within UCLA Library by utilizing subject specialists and subject-specific collections (print and electronic) within social and behavioral sciences disciplines. Course assistants students who plan to be involved with major research projects or intend to undertake honors theses or comprehensive 99 projects. P/NP grading.

101I. UCLA Undergraduate Science Journal, Seminar, three hours; field project, four to six hours. (Same as American Studies M102 and American Studies M160.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

101J. Scientific Knowledge, Industrial Growth, and Social Change. (3) Lecture, three hours. Historical and sociological inquiry into the relationship between industrialization and social change. Focus on changes in the structure of social classes and relations of production in Europe and the United States during the nineteenth and early twentieth centuries. P/NP or letter grading.

101K. Racial and Ethnic Disparities in Healthcare. (5) Seminar, three hours. Examination of ways in which race and ethnicity impact delivery of healthcare in U.S. and discussion of policies and proposals to address these disparities and diversity in healthcare professions. P/NP or letter grading.

101L. Imaginary and Real. (4) Same as Gender Studies M106. Seminar, four hours. Designed for juniors/seniors. Study of four female cultural archetypes — abscissing wife/mother, infanticide mother, intellectual woman, and warrior woman — as they appear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

101M. Imaginary and Real. (4) Same as Gender Studies M106. Seminar, four hours. Designed for juniors/seniors. Study of four female cultural archetypes — abscissing wife/mother, infanticide mother, intellectual woman, and warrior woman — as they appear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

107. Painful Birth: Rise of Modern Capitalism in Late Medieval Italy. (4) Seminar, three hours. Through medieval texts and representations of the human figure, examination of rise of merchant guilds and banking class in late medieval Italy, focusing on ideological and economic issues roots in contempt for commerce, prohibition of usury, ideal of the nobility, and choice between Earth and sky. P/NP or letter grading.

108. Transnationalism, Diasporas, and Homeland-Hostland Politics. (5) Seminar, three hours. Examination of global migration, diaspora communities in the 20th and 21st centuries, with focus on the U.S., including comparative perspective. P/NP or letter grading.

109. Language, Meaning, and the Making of Poetry. (4) Seminar, three hours; workshop, one hour. In words of the august professor, “Semiological warfare against the purveyors of semantic entropy.” In context of and comparison with contemporary speech, study of history of philosophical 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 various Marxist approaches to study of culture, including classic texts, theoretical and empirically works, and the Marxist roots of postmodernism. P/NP or letter grading.

111. Stress and Coping. (4) Seminar, four hours. Examination of research and theory on stress and coping, with emphasis on physical and mental consequences of stress and moderators of both social support and personality in coping strategies. P/NP or letter grading.


113. Architecture from Los Angeles: Work of Frank Gehry, Thom Mayne, and Greg Lynn. (5) Seminar, three hours. Within last 30 years, body of architectural work originating in Los Angeles but reaching world both in material construction and aesthetic influence has emerged. Study of works of three seminal architects — Frank Gehry, Thom Mayne, and Greg Lynn. Site visits and hands-on practice in how to read architectural plans and how to use computers and modeling architectural study and design. P/NP or letter grading.

114. Art Alive: Art and Improvisation in Museums. (4) (Same as Theater M109.) Seminar, four hours. Lecture, three hours; discussion, one hour. Drawing from objects in five major collections (print and electronic) within social and behavioral sciences disciplines. Course as-

133. Practice and Ethics of Ethnographic Fieldwork. (5) Seminar, three hours. Examination of ethics and practices of ethnographic fieldwork. This is not field method course but one intended to convey rich knowledge from which many disciplines and kinds of ethical issues can be derived. P/NP or letter grading.

M135. Narrative in Mass Communication. (6) (Same as Communication Studies M135.) Seminar, four hours. Examination of narrative as primary function of mass media, beginning with social, psychological, cultural, and rhetorical functions of storytelling and basic elements of narrative, then analyzing these in the 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 various media, including review of sociopolitical conditions that act to foster or constrain satire. P/NP or letter grading.

140. Dominants and Subordinates in Social Psychology of Stigma: Anthropology of Dangerous Other. (5) Lecture, four hours. Study of social arrangement and temporary inequalities in contemporary American public school, showing how such entrenched inequalities tend to become permanent. Field component included. P/NP or letter grading.


M143. Latino Immigration History and Politics. (4) (Same as Chicana and Chicano Studies M124.) Lecture, four hours. Cross-cultural view of immigration in 20th century, examining social, political, and economic contexts out of which different waves of Latin American immigration to U.S. has occurred. Letter grading.

144. Stigma: Anthropology of Dangerous Other. (4) Seminar, three hours. In cross-cultural perspective, analysis of apparently common causes and consequences of diverse forms of social inequality in which culturally ascribed stigma is common factor. P/NP or letter grading.


M148. Sex and Gender: Exploring Artificial Communities. (5) (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.

M152. Past Societies and Their Lessons for Our Own Future. (5) (Same as Anthropology M158B and Geography M153.) Lecture, two hours; discussion, two hours. Examination of modern and past tribal and band societies (Amazonian Indians, Kalahari San, New Guineans, and others) that met varying fates, as background to examination of how modern state societies are coping or failing to cope with similar issues. P/NP or letter grading.

M154. Interacting Performance: Examination of Social, Historical, and Cultural Models for Performing Arts. (5) (Same as Theater M132.) Lecture, two hours; discussion, two hours. Examination of nature, function, and historical theory and practice of social, historical, and cultural contexts in which performance traditions have evolved. Attendance at approximately five designated performances/events required for grading.

157. International Relations of Middle East. (4) (Same as Political Science M132B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945. P/NP or letter grading.


165. Women and Literature in Southeastern Europe. (5) Seminar, four hours. Examination, through prism of literature, of changing role of women in southeastern European countries (Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Montenegro, Romania, Russia, Serbia, Slovenia, Turkey) during last 60 years, with emphasis on economic, cultural, and political variables affecting women’s roles. P/NP or letter grading.

166. Stories of Cultural Distance and Imposed Assimilation. (5) Seminar, four hours. Study of how fiction, memoir, and film have represented involuntary cross-cultural assimilation as seen from perspective of immigrants, with emphasis on terms with their own and their relatives’ cultural identity. P/NP or letter grading.

167. Politics of Health from 1750 to 1900: World Health and Public Health, Physical and Mental Health. (5) Seminar, three hours. Examination of health in latter half of 18th century and in 19th century. Research topics may include impact of diseases and controversy over inoculation, professional development of physicians, surgeons, pharmacists, midwives, and nurses, evolution of hospital, rise of specialization in healthcare, and intervention of medical scientists or government in public health. P/NP or letter grading.

168. Mediterranean World since Roman Empire. (5) Seminar, three hours. Introduction to study of Mediterranean world over long period from fall of Roman Empire to present day, including discussions of debates on ecological change, social particularly role of commerce and trade in historical change, and nature of cross-cultural exchange. P/NP or letter grading.

M169. Critical Vision: History of Art as Social and Political Commentary. (5) (Formerly numbered 29.) Seminar, three hours. Study of tradition of visual arts (painting, sculpture, etc.) in which socio-political issues are central. Topics range from philosophy of ancient Greeks to writings of contemporary neuroscientists. P/NP or letter grading.

170. Rationality and Emotions. (5) Seminar, three hours. Historical study of way in which philosophers, social theorists, and cognitive scientists have characterized relationships between emotions, culminating in emerging consensus that emotions can positively influence rational decision making. Readings range from philosophy of ancient Greeks to writings of contemporary neuroscientists. P/NP or letter grading.

172. French Thinkers of Society. (5) Seminar, four hours. In-depth study of distinguishing perspectives of French theorists who wrote on society and its impact on individuals. Theorists include Pascal, Rousseau, Marx Mauss, and Emile Durkheim from early modern period, contemporary thinkers such as Michel Foucault, Michel de Certeau, Pierre Bourdieu, and two postmodern theorists, Guy Debord and Jean Baudrillard. P/NP or letter grading.

173. American Political Thought from Revolution to Civil War. (5) Seminar, three hours. Exploration of nature of American political thought between Revolution and Civil War. Topics include nature of rights, federalism, constitutionalism, and democracy, as well as morality of slavery and legitimacy of succession. P/NP or letter grading.

174. Future Impact of Nano in New Technologies. (5) Seminar, four hours. Examination, for general audience, of science behind nanotechnology and way in which nano can potentially influence medical care, environment, energy issues, military, government, and economics. Demonstration of how nano, like current technology, cannot be separated from ethical, cultural, political, and social issues. P/NP or letter grading.

175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. P/NP or letter grading.

176A. Context of Arab World: Cairo and Alexandria. (5) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176B. Introduction to some of most important cultural, historical, and political currents in contemporary Arab world, with special focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

176B. Reading Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176A. Introduction to some of most salient literature in contemporary Arab world, with focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

177. Biotechnology and Art. (5) Seminar, six hours. Bioartists use cells, DNA molecules, proteins, and living tissues to bring to life ethical, social, and aesthetic issues of sciences. Study of how bioto art blurs distinctions between science and art through combination of artistic and scientific processes, creating wide public debate. Exploration of history of biotechnology as well as social implications of this science. P/NP or letter grading.

178. Secret Coups, Imperial Wars, and American Democracy since World War II. (5) Seminar, three hours. Study of U.S. involvement and overt, in expedient wars since World War II, including involvement in Vietnam, Korea, Cuba, Iran, Guatemala, Nicaragua, and Chile, and implications of those actions for vitality of American democracy. P/NP or letter grading.

M179. Critical Vision: History of Art as Social and Political Commentary. (5) (Formerly numbered 29.) (Same as Communication Studies M169.) Seminar, three hours. Study of tradition of visual arts (painting,
graphic art, photography, sculpture) as vehicles for social and political commentary. P/N/P or letter grading.

M180. Structure, Patterns, and Polyhedra. (5) (Same as Chemistry M117.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filling), and physics (crystal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/N/P or letter grading.

193A. Journal Club Seminars: McNair Research Scholars. (2) Seminar, two hours; discussion, two hours. Limited to McNair research scholars. Study of key research journals and important research articles in humanities and social sciences. Weekly research reports and presentations by McNair students. Presentations by program faculty members and other leading researchers. May be repeated for credit. P/N/P grading.

193B. Journal Club Seminars: Arts and Humanities Summer Research Program. (2) Seminar, one hour; discussion, one hour. Limited to students selected for Humanities Summer Research Program. Study of humanities research journals and monographs. Weekly student research reports and presentations by humanities faculty members. May be repeated for credit. P/N/P grading.

193C. Journal Club Seminars: Mellon Mays Undergraduate Research Scholars. (2) Seminar, one hour; discussion, one hour. Limited to Mellon Mays undergraduate fellows. Study of key research journals and important research articles in arts, humanities, and social sciences. Weekly research reports and presentations by Mellon Mays students. Presentations by program faculty members and other leading researchers. P/N/P grading.

199. Directed Honors Studies. (4) Tutorial, two hours. Preparation: minimum of 4 units completed in Honors Collegium with grade of B or better, overall UCLA grade-point average of 3.0 or better. Special research/writing tutorial with director of one Honors Collegium course to pursue in greater depth significant topics from one collegium course. May be repeated for credit. P/N/P or letter grading.
Human Genetics

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gsaas/lc/library/pgmrqintro.htm. 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


CM124. Computational Genetics. (4) Same as Computer Science CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: Computer Science 32 or Program in Computing 10C with grade of C– or better, and Biostatistics 100A or 110A or Statistics 100B. Conceived for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on computational problems and then solving those problems using computational techniques from statistics and computer science. May be repeated for credit with topic change. Letter grading.

CM220. Societal and Medical Issues in Human Genetics. (5) Same as Sociology and Genetics M102.) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to medical genetics cases. Discussion of role of whole genome sequencing in clinical setting. Human Genome Project influence on medicine and on our concepts of self and identity. Concurrently scheduled with course CM236C. Letter grading.

CM224. Computational Genetics. (4) Same as Bioinformatics M224 and Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: Computer Science 32 or the current application of computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

CM225S. Seminar: Current Topics in Bioinformatics. (4) Same as Computer Science M225S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students, as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics, computational biology, and computational genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association genetics, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. May be repeated for credit with topic change. Letter grading.

CM26A. Advanced Human Genetics: A Molecular Approach. (4) Lecture, three hours. Requires: Preparation: prior knowledge of basic concepts in molecular biology and genetics. Advanced topics in human genetics related to molecular genetics and relevant technologies. Topics include genomic technologies, human genome, mapping and identification of disease-causing mutations, transcriptomics, proteomics, functional genomics, epigenetics, and stem cells. Reading materials include original research articles and reviews or book chapters. Letter grading.

CM26B. Advanced Human Genetics B: Statistical Aspects. (4) Lecture, three hours; computer laboratory, one hour. Recommended preparation: introductory knowledge to mathematical statistics, Biostatistics 100A or Statistics 13 and general genetics knowledge equivalent to Ecology and Evolutionary Biology 121, Human Genetics 236A, or Molecular, Cell, and Developmental Biology 144. Statistical and population genomics related to analysis of complex human genetic traits. Reading materials include original research papers and reviews. Letter grading.

CM236C. Societal and Medical Issues in Human Genetics. (5) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to medical genetics cases. Discussion of role of whole genome sequencing in clinical setting. Human Genome Project influence on medicine and on our concepts of self and identity. Concurrently scheduled with course CM125. Letter grading.

CM244. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requires: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on the theoretical and technological foundations of genomics and their current applications. Concurrently scheduled with course CM244. P/NP or letter grading.

CM156. Human Genetics. (4) Same as Microbiology CM156 and Molecular, Cell, and Developmental Biology M156.) Lecture, three hours; discussion, two hours. Requires: Life Sciences 3, 4. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population biology, and developmental biology. Concurrently scheduled with course CM244. P/NP or letter grading.

C144. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requires: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on the theoretical and technological foundations of genomics and their current applications. Concurrently scheduled with course CM244. P/NP or letter grading.
on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C144. S/U or letter grading.

M252. Seminar: Advanced Methods in Computational Biology. (2) (Same as Bioinformatics M252 and Chemistry M252.) Seminar, one hour; discussion, one hour. Designed for advanced graduate students. Examination of computational methodology in bioinformatics and computational biology through presentation of current research literature. How to select and apply methods from computational and mathematical disciplines to problems in bioinformatics and computational biology: development of novel methodologies. S/U or letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Pathology M255.) Lecture, three hours. Basic molecular genetic and cytogenetic techniques of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localizations of disease genes. S/U or letter grading.

CM256. Human Genetics. (4) (Same as Microbiology CM256 and Molecular, Cell, and Developmental Biology CM256.) Lecture, three hours; discussion, two hours. Requisite: Life Sciences 3A, 3B, 4. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent research project required of graduate students. Letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M260A, Chemistry CM260A, and Computer Science CM221.) Lecture, four hours; discussion, two hours. Recommended requisites: Biostatistics 100A or 110A or Mathematics 170A or Statistics 100A, and Computer Science 32 or Program in Computing 10C with grade of C– or better. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M278. Statistical Analysis of DNA Microarray Data. (4) (Same as Biostatistics M278.) Lecture, three hours. Requisite: Biostatistics 200C. Instruction 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.

282. Human Genetics Seminar and Journal Club. (2) (Seminar, one hour biweekly: discussion, one hour biweekly. Limited to graduate students. Participation and presentation in biweekly journal meeting whose topics reflect those of talk in Human Genetics Seminar Series during following week. Journal club presentation required. S/U grading.

596. Directed Individual Study and Research. (2 to 12) Tutorial, to be arranged. Individual study or research for graduate students. May be repeated for credit. S/U grading.

597. Preparation for 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 grading.


INDO-EUROPEAN STUDIES

Interdepartmental Program
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H. Craig Melchert, Ph.D., Chair

Faculty Committee
Vyacheslav V. Ivanov, Ph.D. (Slavic Languages and Literatures)
Stephanie W. Jamison, Ph.D. (Asian Languages and Cultures)
Joseph F. Nagy, Ph.D. (English)
Christopher M. Stevens, Ph.D. (Germanic Languages)
Brent H. Vine, Ph.D. (Classics)

Scope and Objectives

The prime aim of the interdisciplinary Indo-European Studies Program is the integral study of Indo-European culture, based on comparative linguistics, archaeology, social structure, and religion. The 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://grad.ucla.edu/gasaa/grad/prof.htm. 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 Candidate in Philosophy (C.Phil.) and Doctor of Philosophy (Ph.D.) degrees in Indo-European Studies.

Indo-European Studies

Lower Division Courses

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to the mid-4th millennium B.C. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semiotic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium B.C. and how it compares to other modern writing systems. P/ NP or letter grading.

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 brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

Upper Division Courses

131. European Archaeology, Neolithic to Bronze Age. (4) Lecture, four hours. Survey of European cultures from beginning of food-producing economy in 7th millennium B.C. to beginning of Bronze Age in 3rd millennium B.C. P/ NP or letter grading.

132. European Archaeology: Bronze Age. (4) Requisite: course 131. Survey of European cultures from around 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; discussion, one hour (when scheduled). Enforced requisite: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, and sociolinguistic contexts; nature of reconstructed Indo-European proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/ NP or letter grading.

C160. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: familiarity with at least one ancient Indo-European language. Comparison of major Indo-European mythological and poetic traditions and reconstruction of their common sources. Topics include divine names and their traditional morpheme meaning of linguistic and life change; mythics, folk narratives, belief systems; relations with other traditions; literary continuations of mythopoetic material. Concurrently scheduled with course C260. P/ NP or letter grading.

M168. Introductory Hittite. (4) (Same as Ancient Near East M168.) Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of languages and their written representation in cuneiform by series of graded lessons covering morphology and syntax, followed by readings of selected texts from variety of genres in transcription. P/ NP or letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. P/ NP or letter grading.

Graduate Courses


Information Studies
Graduate School of Education and Information Studies

UCLA
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207 GSEIS Building
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Gregory H. Leazer, D.L.S., Chair

Professors
Christine L. Borgman, Ph.D. (President Professor of Information Studies)
Johanna R. Drucker, Ph.D. (Martin and Bernard Breslauer Professor of Bibliography)
Anne J. Gilliland-Swetland, Ph.D.
Leah A. Lievrouw, Ph.D.
Beverly P. Lynch, Ph.D.
Mary Niles Maack, D.L.S.
John V. Richardson, Ph.D.

Professors Emeriti
Marcia J. Bates, Ph.D.
Howard A. Beser, Ph.D.
Robert M. Hayes, Ph.D.
Russell Shank, D.L.S.
Elaine Svironius, Ph.D.
Diana M. Thomas, Ph.D.
Virginia A. Walter, Ph.D.

Associate Professors
Jonathan Turner, Ph.D.
Christopher M. Kelly, Ph.D.
Gregory H. Leazer, Ph.D.
Ellen J. Pearlstein, M.A.

Assistant Professors
Jean-François Blanchette, Ph.D.
Michelle Caswell, Ph.D.

Ramesh Srinivasan, Ph.D.

Lecturers
Murtuza Baca, Ph.D.
Snowden R. Becker, M.L.I.S.
Stuart Biegel, J.D.
Keri S. Botello, M.L.S.
Lynne Boyden, M.L.S.
David Cappoli, M.L.S.
Loretta M. Gaffney, M.S.
Mahnaz Ghaznavi, M.L.I.S.
Esther S. Grassian, M.L.S.
Joan Kaplowitz, Ph.D.
Julie Kwan, M.S.
Stacey McKeever, M.L.I.S.
Cynthia L. Mediavilla, Ph.D.
Luis H. Mendez, M.L.I.S.
Mary E. Menzel, M.L.I.S.
Eva Mitnick, M.S.
Warren Smith, M.L.I.S.

Visiting Assistant Professor
Susan M. Allen, Ph.D.

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://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Information Studies offers the Master of Library and Information Science (M.L.I.S.) degree and the Doctor of Philosophy (Ph.D.) degree in Information Studies.

One concurrent degree program (Library and Information Science M.L.I.S./Management M.B.A.) and one articulated degree program (Library and Information Science M.L.I.S./Latin American Studies M.A.) are also offered.

Information Studies

Lower Division Courses

10. Fundamentals of Information Searching and Evaluation. (5) Lecture, one hour; discussion, one hour; laboratory, two hours. Designed for first-year undergraduate students. Introduction to bibliographic and information resources that encompass both general and specialized materials. Specifically designed to facilitate knowledgeable use of UCLA libraries and efficient retrieval of information. Letter grading.

20. Introduction to Information Studies. (5) Lecture, five hours. Designed for undergraduate students. Exploration of social, economic, cultural, ethical, and structural aspects of information, and issues that are critical, emergent, and dominant in society as information proliferates globally via networks and computer-mediated communication. Letter grading.

20. Internet and Society. (5) Lecture, five hours. Designed for undergraduate students. Examination of information technology in society, including Internet, World Wide Web, search engines (e.g., Google, Yahoo), retrieval systems, electronic publishing, and distribution of media, including newspapers, books, and music. Exploration of many of these technologies, social, cultural, and political context in which they exist, and how social relationships are changing. Letter grading.

Upper Division Courses

139. Letterpress Laboratory. (1) Laboratory, one hour. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on group project for duration of term. P/NP grading.

180. Special Topics in Information Studies. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Selected topics or issues related to social, cultural, economic, or political aspects of information and information systems. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with topic change. P/NP or letter grading.

199. Directed Research in Information Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

200. Information in Society. (4) Lecture, two hours; discussion, two hours. Examination of processes by which information and knowledge are created, integrated, disseminated, organized, used, and preserved. Topics include history of communication technologies, evolution of literacy, development of information professions, and social issues related to information access. Letter grading.

201. Ethics, Diversity, and Change in Information Professions. (4) Lecture, two hours; discussion, two hours. Service learning course that serves as forum to discuss, learn, and understand ethical challenges of multicultural information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.


205. Cyberspace Law and Policy. (4) Lecture, four hours. Legal and policy concerns of networked technologies from international perspective. Emphasis on jurisdictional issues, freedom of expression, intellige-
tual property, privacy, security, equity, and electronic commerce in online environment. S/U or letter grading.


208. Scholarly Communication and Bibliometrics. (4) Lecture, four hours. Preparation; one intensional 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.


M225. Latin American Research Resources. (4) (Same as Slavic and Latin American Studies M200.) Discussion, three hours. General and specialized materials in fields concerned with Latin American studies. Library research techniques provide experience needed for future independent research and sophistication as basis for enhanced research results. S/U or letter grading.

227. Information Services in Culturally Diverse Communities. (4) Lecture, four hours. Issues in provision of information services in multilingual and multicultural society. Understanding role of information institutions in promoting cultural diversity and preserving ethnic heritage. Letter grading.

228. Measurement and Evaluation of Information Systems. (4) Lecture, four hours. Discussion, two hours. Preparation; one research methods course. Recommended: one library automation course. Information systems and services from points of view of their cost and effectiveness in meeting desired objectives. Review of principles of costing. Study of literature in which measures have been developed to evaluate effectiveness of document collections, reference and information retrieval services, document delivery systems, networking, and technical services, including circulation, acquisitions, and document description. S/U or letter grading.

M229A. Library Policy and Research Methods. (4) (Same as African Studies M229B.) Discussion, four hours. Problems and techniques of research methodologies related to Africana studies. Emphasis on selection and application of relevant research 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. Introduc- tion to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library language, 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 or letter grading.

233. Records and Resource Information Management. (4) Lecture, three hours. Introduction to records and information resources management in corporate, government, and other organizational settings, including analysis of organizational information flow, classification and filing systems, records retention scheduling, records destruction, and records management and control. Letter grading.


M238. Environmental Protection of Collections. (4) (Same as Conservation M240.) Lecture, two hours; laboratory, two hours. Required; course 432. Review of environmental and biological agents of de- terioration, including light, temperature, relative hu- midity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.

239. Letterpress Laboratory. (1) Laboratory. Two hours. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic letterpress provided, and students work on group project for duration of term. S/U grading.

240. Management of Digital Records. (4) Lecture, three hours; discussion, one hour. Preparation: one research methods course. Emphasis on management of digital administrative, information, communications, imaging, or research systems and records. Topics in- clude 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) Lecture, two hours; discussion, one hour. Required; course 200, 260. Provides fundamental knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information-seeking behavior of user groups; communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours; discussion, one hour. Study of factors and influences that are both individual and social, and associated with human beings needing, using, and acting on in- formation. Topics include information theory; human information processing; information flow among social and occupational groups, and research on information needs and uses. Letter grading.


251. Seminar: Specialized Literatures. (4) Seminar, four hours. Required: 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. Stu- dents become familiar with knowledge structures; em- phasis on reference and information sources for scholarly research. Letter grading.

M253. Medical Knowledge Representation. (4) (Same as Bioengineering M226.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Issues related to medical knowledge representation and its application in healthcare processes. Topics include data structures used for repre- sentation of knowledge (trees, frame-based models), different data models for representing spa- tio-temporal information, rule-based implementa- tions, and expert systems (discovery of knowledge (data mining, statistical classifiers, and hi- erarchical classification), and basic information re- trieval. Review of work in constructing ontologies, with focus on problems in implementation and definition. Common medical ontologies, coding schemes, and standardized indices/terminologies (SNOMED, UMLS). Letter grading.

M254. Medical Information Infrastructures and In- ternet Technologies. (4) (Same as Bioengineering M227.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to net- works and communications infrastructures for in- frastructures in medical environment. Exposure to basic concepts related to networking at several levels: low-level (TCP/IP, services), medium-level (network topolo- gies), and high-level (distributed computing, Web- based services) implementations. Commonly used medical communication protocols (HL7, DICOM) and current medical information systems (HIS, RIS, PACS). Advances in wireless health systems, peer-to-peer topologies, grid/cloud computing. Introduction to security and encryption in networked environments. Letter grading.


256. Legal Information Resources and Libraries. (4) Lecture, four hours. Introduction to information resources in law, with emphasis on primary authority and indexes to legal literature. Legal research skills, Law library services and management. Letter grading.


260. Information Structures. (4) Lecture, four hours; discussion, one hour. Required core course. Introduc- tion to various systems and the way they organize materials and provide access to them, with emphasis on generic concepts of organization, classification, hier- archy, arrangement, and display of records. Pro- vides background for further studies in cataloging, refer- ence, information retrieval, and database manage- ment. Letter grading.


270. Introduction to Information Technology. (4) Lecture, four hours. Introduction to theories and prin- ciples of information technologies. Topics include social issues of information technologies and design and development of information systems. Background provided for further studies in information retrieval and design and maintenance of information systems. S/U or letter grading.

274. Medical Internet Interaction. (4) Lecture, four hours. Preparation: one programming course, one infer- rational statistics course. Survey of social, behavior- al, design, and evaluation issues in human/computer interaction, with readings from several disciplines. Ex- tensive 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) Lecture, two hours; laboratory, two hours. Theories, principles, and practicalities of database systems, including data models, retrieval mechanisms, evaluation methods, and storage, efficiency, and security considerations. S/U or letter grading.

275. Development of Cultural Information Sources Using Digital Multimedia. (4) Lecture, two hours; laboratory, two hours. Overview of technologies, techniques, and principles of development and 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 Design. (4) Lecture, four hours; discussion, two hours. Requisites: courses 245, 260. Design implications of interaction between users and features of automated information systems and interfaces that are specific to information seeking processes. Emphasis on search strategy and subject access through use of thesauri and other vocabularies. Letter grading.

279. Seminar: Information Systems. (4) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, text processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

280. Social Science Research Methodology for Information Studies. (4) Lecture, four hours. Understanding of nature, uses, and practice of research appropriate to information studies. Identification of research problems and design and evaluation of research methods. Social science quantitative and qualitative methods. Emphasis on inquiry methodology and empirical research. S/U or letter grading.


282. Principles of Information Systems Analysis and Design. (4) Discussion, four hours. Theories and principles of systems development, including determination of requirements, technical design and evaluation, and internal organization. S/U or letter grading.

288. Research Apprenticeship Course. (2 to 4) Seminar, two hours. Use of mentorship model of training graduate student students in information studies, with focus on development of graduate student research topics. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

289. Seminar: Special Issues in Information Studies. (2 to 4) Seminar, two to four hours. Identification, analysis, and interpretation of critical intellectual, social, and technological issues facing the profession. Topics may include (but not limited to) expert systems, literacy, electronic networks, youth at risk, information literacy, historical bibliography, preservation of electronic media, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) Seminar, one to two hours. Designed for Ph.D. students. Emphasis on recent contributions to theory, research, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of intellectual foundations of information studies; critical analysis of selected histories of various analytical, epistemological, and ethical accounts of information and of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, contexts, institutions, practices, properties, values, and related phenomena. Interdisciplinary context — subfields of information studies and cognate disciplines. Frameworks for theory construction, such as critical theory, discourse analysis, hermeneutics, phenomenology, semiotics, social epistemology. Letter grading.

291B-291C. Special Topics in Theory of Information Studies. (4-4) (Not same as course 291B prior to Fall Quarter 2010.) Seminar, four hours. Enforced requisite: course 291A. Topics include information and evidence — record-keeping and memory-making, personal and community identity, accountability and trust. Information design and implementation of information systems and services, information aesthetics. Information retrieval and knowledge organization. Information seeking, access, and use — contexts, techniques, needs, barriers. Information and power — groups, ideologies, identities, structures. Information and value — information ethics, evaluation of information services. Information policy and law — processes, institutions, participants, stakes. Information institutions and professions — domains, ecologies, cultures, communities. Economics, geography, history, philosophy, politics, sociology of information. Letter grading.

298A. Doctoral Seminar: Research Methods and Design. (Formerly numbered 291B.) Seminar, four hours. Survey of quantitative, qualitative, and historical research designs. Conceptualization and measurement: indexes, scales, and sampling; experimental, survey, field, and evaluation research; data analysis. Letter grading.

298B-298C. Special Topics in Methodology of Information Studies. (4-4) Seminar, four hours. Enforced requisite: course 298A. Topics include anthropological fieldwork methods, archival methodology, bibliographical studies, textual analysis, discourse analysis, historical and visualizing methods, network analysis — bibliometrics, informetrics, scientometrics, social network analysis. Letter grading.

M299. Research Resources for European Studies. (2) (Same as French M299, German M299, Italian M299, Scandinavian 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 teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio Design. (2 to 4) Lecture, two hours; discussion, two hours. Preparation: completion of information studies core courses. Drawing on literature from many fields, exploration of issues related to professional development, such as career planning, continuing education, mentoring, and reflective practice; students also engage in process of guided portfolio design for M.L.S. degree. S/U grading.

410. Management Theory and Practice for Information Professionals. (4) Lecture, two hours; discussion, two hours. Principles and practice of management in all types of information services where information professionals work. Letter grading.


422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of college and university libraries and their relationships within institutions of which they are part. Functions of research libraries and work of their staffs in serving scholars. S/U or letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of services for 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 these services. Letter grading.

426. Library Services and Literature for Youth. (4) 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 psychology of teenagers. S/U or letter grading.


438A. Seminar: Advanced Issues in Archival Science — Archival Appraisal. (4) Seminar, four hours. Requisite: course 431. Examination and evaluation 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 methodology. 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) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

450. Government Information. (4) Lecture, four hours. Introduction to nature and scope of government information promulgated by federal government, as well as by state, municipal, international, and foreign governments. Problem-oriented approach. S/U or letter grading.

455. Government Information. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

457. Health Sciences Librarianship. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

462. Subject Cataloging and Classification. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

473. Information Technology and Libraries. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

497. Fieldwork in Libraries or Information Organizations. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

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

569. 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.


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Barbara Herman, Ph.D.
Russell Korobkin, J.D.
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Joan B. Silk, Ph.D.
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Stefan Timmarmans, Ph.D.
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Matthew Morton Wise, Ph.D.

Associate Professors
Christopher M. Kelty, Ph.D.
Hannah Landecker, Ph.D.

Assistant Professor
Aaron L. Panofsky, Ph.D.

Adjunct Assistant Professor
Deborah Greenfield, J.D.

Scope and Objectives
The Human Biology and Society majors provide a rigorous interdisciplinary education in current issues at the intersection of human biology, genetics, and society where bridging the institutional divide between the life sciences and human sciences (humanities and social sciences) is necessary. The teaching strategy emphasizes the value of synthetic, integrative thinking. Learning can best be organized synthetically around the sorts of knowledge and skills required to investigate and address such problems rather than by building up from the stepwise sequences of traditional disciplines. Preparation for the major is centered on three areas of study that together prepare students to solve problems at the intersection of biology and society: genes and gene expression; human evolutionary biology; and society, diversity, and identity. The majors provide an important integrative space where different ways of knowing in the human and life sciences are explored, interrelated, and applied. Core and capstone courses emphasize problem-based learning about pressing issues that inextricably link society, culture, and biology, such as medical privacy rights, gene patents, regulation of stem cell research, and questions of race, gender, and identity.

Programmatically, the majors consist of required elements that develop critical thinking skills, knowledge, and excellence in written and spoken communication; elective concentrations that allow students to focus on a particular emerging research area at the intersection of biology and society; extracurricular involvement in academic research and corporate/community internship. The mission is to educate students who become leaders in diverse areas such as law, medicine, humanities, social sciences, and biological sciences, and to have them interact and work together to form a deep understanding of the issues at the intersection of human social systems, evolutionary biology, and genetics.

The minor in Society and Genetics provides undergraduate students with the opportunity to understand and probe the complex problems and possibilities presented by modern genetics, with special attention to their social context and content. Given the dynamic interaction between genetics and the social world in which it is embedded, the minor is of necessity multidisciplinary and emphasizes a collaborative cross-disciplinary approach to instruction in the core courses of the minor and exposure to a wide range of disparate scholarship through elective courses available in such areas as anthropology, biology, history, philosophy, public policy, and sociology.

Undergraduate Study
Human Biology and Society B.A.

Human Biology and Society Premajor
All students intending to major in Human Biology and Society must complete Society and Genetics 5 with a grade of B or better. They may then enroll as premajors. After completing the premajor requirements with a minimum grade-point average of 2.9 or better, students must submit an application for admission to the major at the undergraduate counselor's office in 1308 Rolfe Hall.

Preparation for the Major
Required: Anthropology 7, Chemistry and Biochemistry 14A, Life Sciences 1, 2, Society and Genetics 5, Statistics 10 or 13, one empirical social theory course from American Indian Studies M10, Anthropology 9, Asian American Studies 20, Geography 3, History 3C, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 40, 50, Microbiology, Immunol-
ogy, and Molecular Genetics 12, Public Policy 10A, or Sociology 1, and one normative social theory course from Gender Studies 10, Molecular, Cell, and Developmental Biology 60, Philosophy 4, 6, 8, 22, or Sociology M5. Each course must be taken for a letter grade, and students must complete all premajor courses with a minimum grade-point average of 2.9. Admission to the major is granted only after successful completion of all lower division requirements.

Enrollment in the program is limited. Admission to the major is by competitive application, using student courses, grades, grade-point averages, and personal statements of interest as minimum standards for consideration. Students should consult the undergraduate counselor in 1908 Rolfe Hall about the application process.

Transfer Students
Transfer applicants to the Human Biology and Society B.A. major with 90 or more units must complete at least five of the following seven preparatory courses prior to admission to UCLA: the equivalent of Life Sciences 1 and 2, introductory chemistry, statistics, one anthropology human evolution course, and two introductory social sciences or history courses. Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Society and Genetics 101, 105A, 105B, 191R; two terms of course 193; 4 units from course 195CE, 196, or 199; and five courses from one of the following concentration areas, including at least one society and genetics course:


**Population Genetics and History:** Two courses from Ecology and Evolutionary Biology 135, Human Genetics CM124, and Society and Genetics 120, and three courses from Ancient Near East 162, 163, Anthropology 110P, 111, M140, M158Q, 181, 182, 186F, Asian American Studies 113, Computer Science CM121, Ecology and Evolutionary Biology 120, 131, 135, Gender Studies M162, M180B, History M108C, M151C, 164D, 180A, 180C, 191B through 1910, Honors Collegium M143, Human Genetics CM124, C144, Linguistics 110, 114, 127, 130, 132, M150, Molecular, Cell, and Developmental Biology 172, Psychology 160, Society and Genetics M102, 120, 121, 160, 175, 197, 199, Sociology 154, 156. Students may petition to apply a second term of Society and Genetics 195CE toward this concentration area. See below for courses in the optional subfocus area of population genetics.

Each course (except Society and Genetics 193) must be taken for letter grade and passed with a grade of C– or better, and all courses must be completed with an overall 2.0 grade-point average.

Optional Subfocus Areas
Optional subfocus areas are designed and recommended for students planning to go on to medical, dental, or pharmacy school, or graduate school in the life or health sciences. Students select one subfocus area and complete three courses within that area:

**Cell Development:** Molecular, Cell, and Developmental Biology 138, 165A, 168

**Ecology and Evolutionary Biology:** Three courses from Anthropology 121C, 124A, 124P, M125A, 128A, Ecology and Evolutionary Biology 100, 116, 120, 121, 126, 129, 130, 135, 175, 176

**Microbiology and Immunology:** Microbiology, Immunology, and Molecular Genetics 101, 185A, and one course from 103L, 106, 107, 158, or 168

**Molecular Biology and Genomics:** Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics CM122, or 158

**Physiology:** Physiological Science 111A, 111B, and one course from 147, 149, or 177

**Population Genetics:** Two courses from Ecology and Evolutionary Biology 135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144

**Psychology and Mental Health:** Three courses from Psychology M107, 112A, 112B, 115, M117J, 127A, 129C, 160

Human Biology and Society B.S.

**Human Biology and Society Premajor**
All students intending to major in Human Biology and Society must complete Society and Genetics 5 with a grade of B or better. They may then enroll as premajors. After completing the premajor requirements with a minimum grade-point average of 2.5 or better, students must submit an application for admission to the major at the undergraduate counselor's office in 1308 Rolfe Hall.

**Preparation for the Major**
Required: Anthropology 7, Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, 14D (or 20A, 20B, 20L, 30A, 30AL, 30B, 30BL), Life Sciences 1, 2, 3, 4, 23L, Mathematics 3A, 3B, 3C (or 31A, 31B, 32A), Physics 1A, 1B, 1C, 4A, 4B (or 6A, 6B, 6C), Society and Genetics 5, Statistics 10 or 13, one empirical social theory course from American Indian Studies M10, Anthropology 9, Asian American Studies 20,
Enrollment in the program is limited. Admission to the major is by competitive application, using student courses, grades, grade-point averages, and personal statements of interest as minimum standards for consideration. Students should consult the undergraduate counselor in 1308 Rolfe Hall about the application process.

Transfer Students
Transfer applicants to the Human Biology and Society B.S. major with 90 or more units must complete the following introductory courses prior to admission at 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 should also complete at least two of the following introductory courses prior to admission: one statistics course, one anthropology human evolution course, and two introductory social sciences or history courses.

Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Society and Genetics M102, 105A, 105B, 191R; two terms of course 193; 4 units from course 195CE, 196, or 199; and five courses from one of the following concentration areas, including at least one society and genetics course:


Each course (except Society and Genetics 193) must be taken for letter grade and passed with a grade of C– or better, and all courses must be completed with an overall 2.0 grade-point average.

Optional Subfocus Areas
Optional subfocus areas are designed and recommended for students planning to go on to medical, dental, or pharmacy school, or graduate school in the life or health sciences. Students select one subfocus area and complete three courses within that area:

Cell Development: Molecular, Cell, and Developmental Biology 138, 165A, 168


Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, 185A, and one course from 103L, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics CM122, or 158

Physiology: Physiological Science 111A, 111B, and one course from 147, 149, or 177

Population Genetics: Two courses from Ecology and Evolutionary Biology 135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144


Society and Genetics Minor
Enrollment in the minor program is limited to juniors and determined by competitive application, using student courses, grades, grade-point averages, and personal statements of interest as minimum standards for consideration. Applicants must have an overall grade-point average of 2.5 or better. Applications are reviewed and decided by a committee of faculty members during Fall Quarter only. Students may consult the undergraduate counselor in 1308 Rolfe Hall about the application process.

Required Upper Division Courses (30 to 34 units): (1) Society and Genetics 101 or, for life sciences majors, a 4- or 5-unit upper division elective course from the approved list of courses issued each term by the program, (2) course M102, (3) course 191, and (4) at least four upper division elective courses (minimum 16 units) from the approved list. One individual research tutorial (course 199) may be applied; enrollment in additional 199 courses may be considered by petition.

Students may petition to have a course not on the approved list applied toward the four-course elective requirement. Consult the undergraduate counselor in 1308 Rolfe Hall.

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

No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Society and Genetics
Lower Division Course
5. Integrative Approaches to Human Biology and Society. (5) Lecture, three hours; discussion, one hour. Introduction to concept of problem-based approaches to human biology and society and areas of concentration, such as bioethics and public science policy, evolutionary biology, culture, and behavior, historical and social studies of life sciences, medical genetics and public health, and population genetics and history, and central thematic issues shared across concentrations, such as commercialization of life and public understanding of science. Letter grade.

Upper Division Courses
101. Genetic Concepts for Human Sciences. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for Life Sciences 4. Focused treatment of selected complex genetic concepts from molecular biology, population and quantitative genetics, and evolutionary biology, with emphasis on gene-environment interaction at various levels and culminating in exploration of notion of coevolution of genetics and society. Basic science concepts presented through real-world issues and research problems. Current research on cancer, immune system and development, and how this research is performed and adds to knowledge. Letter grading.

M102. Societal and Medical Issues in Human Genetics. (5) Formerly numbered 102W. (Same as Human Genetics CM136C) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commercialization of molecular identity, genetic privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Letter grading.

105A. Ways of Knowing in Life and Human Sciences (4) Lecture, three hours. Enforced requisite: course 5. Introduction to study of epistemology to train students to recognize different ways of knowing what we know. In life and human sciences, instruments and methods are used to study, measure, and experiment. Exploration of how they are manifest in technologies that cut across disciplines to help students in their quest to find their own unique way of knowing. Historical and social perspectives are used to investigate major agricultural expansions in Europe, Asia, and Africa; Lemba people of South Africa; and their critics, distinctive history and social organization. Consideration of several historical episodes such as rise of eugenics using critical sociology and history. Consideration of how political authority has been used to consolidate and undermine liberal democracies and totalitarian regimes. How genetics has been used to consolidate and undermine political authority, and how political authority has been employed to both promote and restrict genetics. Consideration of several historical episodes such as rise to power in Soviet Union of T.D. Lysenko, peasant agronomist who rejected Mendelism in favor of quasi-Lamarckian approach; genetics and politics; and debates over compulsory sterilization of mental defectives in U.S., Canada, and Europe from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation and governance of reprogenetic technologies, and rise of disease advocacy groups as important players in determining funding and direction of genetic research. Letter grading.

160. Politics of Heredity. (4) Seminar, three hours. Introduction of intersection of politics and genetics in liberal democracies and totalitarian regimes. How genetics has been used to consolidate and undermine political authority, and how political authority has been employed to both promote and restrict genetics. Consideration of several historical episodes such as rise to power in Soviet Union of T.D. Lysenko, peasant agronomist who rejected Mendelism in favor of quasi-Lamarckian approach; genetics and politics; and debates over compulsory sterilization of mental defectives in U.S., Canada, and Europe from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation and governance of reprogenetic technologies, and rise of disease advocacy groups as important players in determining funding and direction of genetic research. Letter grading.

161. Controversy and Behavior Genetics. (4) Seminar, three hours. Behavior genetics is controversial and seeks genetic links to intelligence, personality, mental illness, and criminality, among many other traits. It explores differences among individuals, men and women, or racial groups, and what social policies might do about those differences. Analysis of causes and effects of controversy in behavior genetics using critical sociology and history. Consideration of scientific disputes between behavior geneticists and their clients, distinctive history and social organization of behavior genetics as group of scientists, and public reception of behavior genetics and disputes about its social and policy implications. Letter grading.

162. Biotechnologies, Law, and Body. (4) Seminar, three hours. Notions of bodily integrity, privacy, right to life, and to choose to die have created perception that our bodies are protected by law, that somehow we own and control our lives, encompassing not only our physical being but intangible information contained within our materialized forms. Exploration of whether, and how, our own bodies exist and are secured by common and constitutional law, in light of recent developments in biotechnology. Introduction to biological and legal discourses of rights. Historical perspectives on how our ideas of life, reproduction, assisted reproduction, disputes regarding disposal of embryos, preimplantation genetic testing, cloning, and genetic enhancements. Letter grading.

175. Current Directions in Social and Historical Study of Science. (4) Seminar, three hours. Preparation: some familiarity with field of science and technology studies. Investigation of recent work in history and social study of science and technology, with special emphasis on recent developments, possible future directions, and questions of disciplinarity and interdisciplinarity. Topics may include histories of recent and emerging sciences; biocapital, biocritique, biosecurity, and/or biopolitics; social and historical approaches to finance and money; and social and historical approaches to risk, preparedness, and safety. Letter grading.

180. Special Courses in Society and Genetics. (4) Lecture, three hours. Departmentally sponsored experimental or temporary courses on selected topics, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188. Special Courses in Society and Genetics. (4) Seminar, three hours. Departmentally sponsored experimental or temporary courses on selected topics, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

190. Research Colloquia in Society and Genetics. (1 Seminar, one hour. Limited to juniors/seniors. Designed to bring together advanced undergraduate students undertaking faculty-supervised tutorial research to discuss their own work or related work in society and genetics. May be repeated once for credit with topic change. P/NP grading.

191. Variable Topics Research Seminars: Perspectives in Society and Genetics. (5) Seminar, three hours. Enforced requisites: courses 101 (or Life Sciences 101) or 105A. Offered to graduate students. Topics may include health and disease, and the environment and human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipulating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Culminating paper required. May be repeated once for credit with topic change. Letter grading.


195. Community or Corporate Internships in Society and Genetics. (2) Tutorial, to be arranged; fieldwork, six hours. Enforced requisites: course 102W or 105A. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with faculty supervisor to provide periodic reports about their experience. May be repeated once for credit. Individual contract with supervising faculty member required; consult under-graduate adviser. P/NP or letter grading.

196. Research Apprenticeship in Society and Genetics. (2) Tutorial, six hours. Limited to juniors/seniors. Entry-level research opportunities in society and genetics under guidance of faculty mentors. May be repeated for maximum of 4 units. Individual contract required. P/NP or letter grading.

197. Individual Studies in Society and Genetics. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (paper or other product) required. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Society and Genetics. (1 to 4) Seminar, one hour. Limited to juniors/seniors. Faculty-supervised individual research or investigation in society and genetics by advanced undergraduate students. Culminating paper or project required. May be repeated once for credit with topic change. Individual contract required. Letter grading.

Graduate Course

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

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Scope and Objectives
The mission of the UCLA Institute of the Environment and Sustainability (IoES) is to advance cross-disciplinary research, teaching, and public service on matters of critical importance to the planet and the campus community. The environment is defined broadly to include the interrelated issues of global climate change, loss of biological diversity, and threats to human health and well-being from the use and misuse of natural resources, applying all the tools of science and policy analysis as well as moral and aesthetic values to the work. The environment is a crucial component of sustainability, which is defined as the simultaneous consideration of environmental, economic, and social concerns. Los Angeles itself is a vital asset to this mission. As an international mega-city located in one of the world’s most biologically diverse regions, Los Angeles is a magnet for scholars from around the world who are facing
similar issues of pollution, access to potable water, demand for energy, fragmentation of habitat, and the need to restore ecological function to sprawling urban settlements in a manner that supports economic growth and that is socially just and equitable.

The IoES offers creative, multidisciplinary academic programs and courses that address the full complexity of current environmental problems and sustainable solutions. The Bachelor of Science degree in Environmental Science is an innovative dual-component degree program for students seeking a challenging and invigorating science curriculum. The first component, the Environmental Science major, provides students with disciplinary breadth in several areas important to environmental science. The second component, a minor or concentration in one of seven environmental science areas, provides students with focused disciplinary depth in an area of their choosing. The minor in Environmental Systems and Society is designed for students who wish to gain a deeper understanding of the relationships between environmental science and associated social and political issues.

The IoES also sponsors the 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 and sustainability topics such as the history of environmental thought, environmental policy, and the impacts of human population.

At the graduate level, the IoES offers the Environmental Science and Engineering (D.Env.) degree program that was founded in 1973 by Nobel laureate Dr. Willard Libby, who perceived a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional Ph.D. programs.

The program is designed with an appropriate balance of breadth and specific skills, based on a strong master’s-level foundation in a science or engineering discipline. The curriculum consists of formal coursework across a full spectrum of relevant physical, biological, social, and engineering disciplines, as well as interdisciplinary research training through nine-month problems courses.

The program has awarded the Doctor of Environmental Science and Engineering degree to over 200 students, and UCLA remains unique in the country in awarding such a degree.

Undergraduate Study

The Environmental Science major is a designated capstone major. In collaboration with a local agency or nonprofit institution, students work individually and in groups to complete projects that require them to integrate many of the skills, principles, theories, and concepts they have learned throughout the curriculum and apply them to real systems. Students are expected to contribute meaningfully to the analysis and solution of particular environmental science issues involving multiple disciplines and stakeholders with different perspectives. Those completing the major should possess critical thinking skills, problem-solving abilities, and familiarity with essential computational, data collection, and analysis skills, as well as demonstrate effective oral and written communication skills. Graduates should also be able to identify key ethical issues and analyze the consequences of various professional dilemmas, as well as work productively as part of a team.

Environmental Science B.S.

Environmental Science B.S. program represents strong collaboration between the Institute of the Environment and Sustainability and the Departments of Atmospheric and Oceanic Sciences, Civil and Environmental Engineering, Earth and Space Sciences, Ecology and Evolutionary Biology, Environmental Health Sciences, and Geography. The program is designed for students who are deeply interested in the study of environmental science. There are two components to the program, and both must be completed to receive the degree. The first component, the Environmental Science major, requires completion of lower division requirements grounded in basic natural sciences, a six-course upper division environmental science requirement reflecting the disciplinary breadth of environmental science, two social sciences/humanities courses, participation in an ongoing environmental science colloquium, and completion of an environmental science practicum. The second component is a minor or concentration in one of seven environmental science areas, each associated with a particular department. With assistance from IoES staff, students must formally apply to and be accepted by the associated department to receive the minor.

Preparation for the Major

Required: Chemistry 1A, 1B, and 14BL (or 20A, 20B, and 20L), Earth and Space Sciences 1 (required for the Earth and environmental science minor) or Environment M10, Life Sciences 1, 2, Mathematics 3A and 3B (or 31A and 31B), Physics 6A and 6B (or 1A and 1B), Statistics 12 or 13.

For the atmospheric and oceanic sciences and environmental engineering minors, Chemistry and Biochemistry 14C (or 30A), or Mathematics 3C (or 32A) and Physics 1C (or 6C) are also required.

For the conservation biology minor, Chemistry and Biochemistry 14C (or 30A), Life Sciences 1, and 3 are also required.

For the Earth and environmental science minor, Chemistry and Biochemistry 14C (or 30A) or Physics 1C (or 6C), Earth and Space Sciences 1, and one course from 5, 13, 15, or 61, and Mathematics 3C (or 32A) are also required.

For the environmental health concentration, Chemistry and Biochemistry 14C (or 30A) and Life Sciences 3 are also required.

For the environmental systems and society minor, two courses from Chemistry and Biochemistry 14C or 30A, Life Sciences 3, Mathematics 3C or 32A, and Physics 1C or 6C, plus Geography 5 and one course from 1, 2, 3, 4, or 6 are also required. Students should take these courses before enrolling in upper division courses.

Each course applied toward requirements for preparation for the major must be passed with a grade of C– or better. Students receiving a grade below C– in two courses, either in separate courses or repititions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Environmental Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two general chemistry courses with laboratory for majors, two general biology courses with laboratory for majors, two calculus courses, and two calculus-based physics courses.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

The major consists of four requirements: environmental science, social sciences/humanities, practicum/colloquium, and minor or concentration, as follows:

Environmental Science Requirements

Required: One course from each of the following six core environmental science areas. No more than two courses may be from any one department. (1) One atmospheric and water science course from Atmospheric and Oceanic Sciences 101, 103, M105, 130, Earth and Space Sciences C132, 153, or Geography 105; (2) one climate science course from Atmospheric and Oceanic Sciences 102, Geography 102, 104, M106, or M131; (3) one Earth science course from Earth and Space Sciences 101, C113, 119, 135, 139, 150, Environment M127, Geography 100, 101, or M107; (4) one ecology and conservation biology course from Ecology and Evolutionary Biology 100, 109, 116, 151A, 154, Environment 121, Geography 111, or 113; (5) one environmental management course from Environment M134, M135, 160, 166, or Public Policy C115; (6) one pollutant sources, treatment, fate, and transport course from Atmospheric and Oceanic Sciences 104, Chemical Engineering C118, Civil and Environmental Engineering 153, 154, M166, Environmental Health Sciences 100, C125, C152D, or C164.
Social Sciences/Humanities Requirements

Required: (1) One humans and environment course from Environment M132, M133, M137, M153, Geography M128, 135, M137, 145, 150, M153, 156, or Philosophy 125; (2) one policy and politics course from Environment 138, M155, M161, M162, M164, or 166.

Practicum/Colloquium Requirements

Required: Four terms of Environment 170 and three capstone practicum courses (180A, 180B, 180C).

Minor and Concentration Requirements

No more than two of the courses below may be applied toward both these minors and concentrations and a major or minor in another department or program. Successful completion of a minor is indicated on the transcript and diploma.

For the atmospheric and oceanic sciences minor, at least two courses from Atmospheric and Oceanic Sciences 101, 102, 103, 104 and up to five courses from Atmospheric and Oceanic Sciences C110, C115, 130, 145, C160, C170, Chemistry and Biochemistry 110A are required. One course may be taken on a Passed/Not Passed basis.

For the conservation biology minor, Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses from 101, 103, 105, 109, 111, 112, 114A, 122, 129, 151A, 154, 176, 180A are required.

For the Earth and environmental science minor, five courses from Earth and Space Sciences 101, 112, C113, 139, 150, 153 are required.

For the environmental engineering minor, Civil and Environmental Engineering 153 and five courses from 151, 154, 155, 156A, M166, Chemical Engineering C118, Environmental Health Sciences C125, C164 are required.

For the environmental health concentration, Environmental Health Sciences 100, C135, Epidemiology 100, and three courses from Chemistry and Biochemistry 153A, Environmental Health Sciences C125, C140, C152D, C157, C164, 203 are required.

For the environmental systems and society minor, seven courses from Environment M109, M111, 121, 122, M130, M132, M133, M134, M135, M137, 138, M153, M155, 160, M161, M164, 166 are required.

For the geography/environmental studies minor, three courses from Geography M108, M107, M109, 110, 113, M115, 116, 120, 121, 122, 123, 124, 125, 126, M127, M128, 129, M131, 132, 135, 136, M137, 159C, 159D, 159E, and any two additional upper division geography courses (except those from the preceding list and courses 194 through 199) are required.

Each course applied toward requirements for the major, except Environment 170, must be taken for a letter grade. Students must maintain an overall grade-point average of 2.0 (C) or better in all courses applied toward the major.

Honsors Program

The honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis or research project. To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper division coursework in the major and an overall GPA of 3.0 or better, (3) complete at least 8 units of Environment 198 taken over at least two terms, and (4) produce a completed, satisfactory honors thesis. The honors thesis or research project is in addition to the requirement of the completed practicum in environmental science project. Consult the student affairs officer for further information.

Environmental Systems and Society Minor

The Environmental Systems and Society minor is designed for students who wish to augment their major program of study with courses addressing the relationships between environmental science and associated social and political issues. The minor seeks to impart a deeper understanding of environmental systems related to air, land, and water resources, providing a basis for sound professional decision making.

To enter the minor, students must be in good academic standing (2.0 grade-point average) and file a petition at the Institute of the Environment and Sustainability, 300 La Kretz Hall, (310) 206-9193.

Required Lower Division Courses (8 units):
At least two courses from Astronomy 3, Atmospheric and Oceanic Sciences 1, 2, 3, Earth and Space Sciences 1, 15, 16, 20, Ecology and Evolutionary Biology 10, 13, 25, Environment M1A, M1B, M10, 14, Geography 1, 2, 5.

Required Upper Division Courses (20 units):
At least five courses from Environment M109, M111, 121, 122, M130, M132, M133, M134, M135, M137, 138, M153, M155, 160, M161, M164, 166.

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

No more than 8 units may be applied toward both this minor and any other major or minor 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.

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

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Institute of the Environment and Sustainability offers the Doctor of Environmental Science and Engineering (D.Env.) degree.

Environment

Lower Division Courses

M1A-M1B-M1CW. Global Environment. (6-6-6) (Same as GE Clusters M1A-M1B-M1CW) Course M1A is enforced requisite to M18, which is enforced requisite to M1CW. Examinations of environmental factors and issues such as carbon emissions, climate change, energy, and water. Letter grading.

M10. Introduction to Environmental Science. (4) (Same as Atmospheric and Oceanic Sciences M10.) Lecture, three hours; laboratory, one hour. Limited to undergraduate students. Introduction to environmental science as discipline and as way of thinking. Discussion of critical environmental issues at local and global scales. Fundamentals of physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

12. Sustainability and Environment. (4) Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental component, including Earth's physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific method in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate change, biodiversity, pollution, and water and energy resources presented in context of creating sustainable human society that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

Ocean Environment. (5) Lecture, three hours. Introduction to scientific studies of oceans, with emphasis on ecosystems and environmental issues. P/NP or letter grading.

Upper Division Courses

M109. Human Impact on Biophysical Environment: What Science Has Learned. (4) (Same as Geography M109.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.

M111. Earth and Its Environment. (4) (Same as Atmospheric and Oceanic Sciences M110.) Lecture, three hours. Overview of Earth as system of distinct, yet intimately related, physical and biological elements. Origins and characteristics of atmosphere, oceans, and land masses. Survey of history of Earth and life on Earth, particularly in relation to evolution of physical world. Consideration of possibility of tech-
visibility to women. Investigation of gender and sustainable dimensions of food system, including agri-business, community-supported agriculture, farmers’ markets, and cooperative food production. Systematic study of processes of and hazards posed by erosion, sedimentation, and pollution and techniques needed to conserve soil and maintain environmental quality. Scope includes agriculture, forest engineering, mining, and other rural uses of land. P/NP or 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. Historical evolution and role of federal, state and local government to address these issues. Emphasis on interrelation of natural biotic and human systems. Description of distribution of biodiversity and natural processes that maintain it. Critical analysis of trends and threats to wildlife and biodiversity and techniques for conserving species and habitats. Letter grading.

122. International Integrated Coastal Management. (4) Lecture, three hours; fieldwork, five hours. Interrelationship between coastal and marine organisms and environmental factors, including physical, chemical, biological, and geological factors. Resolving conflicts in manner that allows sustainable development. Focus on how ICM is being used in U.S. and around world to conserve soil and maintain environmental quality. Letter grading.


M127. Soils and Environment. (4) Same as Ecology and Evolutionary Biology M127 and Geography M127.) Lecture, three hours; discussion, one hour; field trips. 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. P/NP or letter grading.

M130. Environmental Change. (4) Same as Geography M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of systematic changes of natural environment in U.S. during historical time, with emphasis on impact of social and political change on economic activity, technology, and cultural traits. P/NP or letter grading.

138. Effective Methods of Social Change. (4) Lec-
ture, three hours; discussion, two hours. Introduction to most effective methods of social change. Examination of social entrepreneurs, innovators, and visionaries. Review of traditional methods of activism and new theories of nonviolent social change. Study of success in restoring environment, resolving conflicts, curing diseases, overcoming poverty, and addressing other problems of social injustice as well as reviewing new strategies and methods for social change in 21st century. Challenges that nonprofit advocates and community activists face today, including strategic planning, time management, networking, negotiation, and fund-raising. P/NP or letter grading.


M155. Energy in Modern Economy. (4) Same as Physics M155.) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 31A and 31B), Physics 1A and 1B (or 6A and 6B). Introduction to basic energy concepts and examination of various energy conversion technologies, and energy policies in modern life. Analysis of implications of current patterns of energy production and consumption for future economic and environmental well-being, and study of techniques and methods from physical and life sciences, engineering, environmental science, economics, and public policy. Basic quantitative skills provided to analyze and critically evaluate technical, economic, and political choices to address challenge of balancing economic growth and environmental sustainability. P/NP or letter grading.

M161. Global Environment and World Politics. (4) Same as Political Science M122B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: Political Science 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

M162. Land Use and Development. (4) Same as Urban Planning M162.) Lecture, four hours. Examination of institutional and historical evolution of land use in U.S. Comparison and contrasting of how cities have evolved in different parts of U.S. and some recent trends in urbanization. Relationship of state-level land-use policies and politics and ways in which local, state, and federal planning, Environmental, social, and aesthetic aspects of different patterns of urbanization are likely trends into future. Letter grading.
163. Business and Natural Environment. (4) (Formerly numbered 188A.) Lecture, three hours. Examination of role of business in mitigating environmental degradation and incentives to be more environmentally responsible. Emphasis on corporate strategies that deliver value to shareholders while responding to environmental concerns. P/NP or letter grading.

164A. Environmental Politics and Governance. (4) (Same as Urban Planning M160.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of governance. Institutions and policies matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.

165. Nuclear Weapons: Critical Decisions. (4) (Same as Honors Collegium M119, Public Policy 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.

166. Leadership in Water Management. (4) Lecture, three hours; field trip, one hour. Emphasized is role of policy and leadership in shaping water and environmental planning in urban and rural settings. Case studies to be drawn from research in Los Angeles and other places. Letter grading.

170. Environmental Science Colloquium. (1) Seminar, 90 minutes; one field trip. Limited to seniors/juniors. Examination of water quality and water supply issues, including interactions between scientific, technological, management, and policy issues. Emphasis is placed on understanding how practitioners discuss relevant issues such as pollution, climate change, and water infrastructure. Emphasis on solutions involving integrated water supply and wastewater systems. Letter grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Enforced requisite: Statistics 12 or 13. Limited to Environmental Science majors who have completed 40 or more units of preparation for major courses, including statistics, and 12 or more units of upper division courses toward major or minor requirements. Examination of case studies and presentation of tools and methodologies in environmental science and environmental policy and law issues. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter grading.

180B-180C. Practicum in Environmental Science. (5-5) Laboratory, four hours; field trips. Enforced requisites include Statistics 12 or 13. Course 180B is for students who have not participated in course 180C. Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual multidisciplinary issue. Particular emphasis on developing skills required for working as professionals in this field. Work may involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental policy and law issues. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter grading.

184. Basics of Satellite Oceanography. (4) Lecture, two hours; discussion, one hour; computer laboratory, three hours. Remotely sensed data collected since late 1970s provide oceanographers with large volumes of spatially distributed state of surface of world ocean, including sea surface temperature measured by infrared sensors, anomalies of sea winds measured by scatterometers, and water color properties measured by optical sensors. Multidisciplinary information enables comprehensive monitoring of both physical and biological properties of ecosystems in different ocean regions. P/NP or letter grading.

185A. Education for Sustainable Living Program Spearey Reports. (Formerly numbered 185.) Lecture, two hours. Analysis of principles of sustainability through series of lectures by world-renowned faculty members, authors, environmentalists, and progressive thinkers, with required student response papers. May be repeated for credit. P/NP grading.

185B. Education for Sustainable Living Program Action Research. (2) Lecture, two hours; fieldwork, four hours. Investigation of issues of campus sustainability, including energy efficiency, transportation, waste management practices, and more by student research teams to generate coalition of student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. Letter grading.

185C. Education for Sustainable Living Program Action Research Leader. (3) Seminar, two hours; fieldwork, six hours. Students lead research teams to investigate issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more to generate coalition of student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. Letter grading.

186. Comparative Sustainability Practices in Local/Global Settings. (4) Fieldwork, four hours. Guided analysis of how local sustainability practices and policies in diverse regional or international settings. Emphasis on comparing role of local and regional climate, geography, socioeconomic context, and political institutions on sustainability awareness and practices. Use of observations, interviews, and unobtrusive measures to document and analyze role and influence of local/global context on sustainability behavior of individuals, small businesses, and other institutions in everyday life. Letter grading.

188A-188B. Special Courses in Environment. (4-2) (Formerly numbered 188B.) Lecture, three hours (course 188A) and two hours (course 188B). Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

193. Journal Club Seminars: Environment. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature of field. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Environmental Science. (2 or 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to junior/senior majors. Internship in supervised setting in community agency or business related to environmental science and/or sustainability. Students meet on regular basis with faculty supervisor to discuss significant components of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required; consult undergraduate adviser. P/NP grading.

198. Honors Research in Environmental Science. (2 to 4) Tutorial, four hours. Limited to junior/senior Environmental Science majors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Must be taken for at least two terms and for total of at least 8 units. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Environmental Science. (2 to 4) Tutorial, two hours. Preparation: submission of written proposal outlining study or research to be undertaken. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Progress report must be submitted at end of term. Culminating paper or project required. May be repeated for credit, but only 4 units may be taken each term. Individual contract required. P/NP or letter grading.

Graduate Courses

277. Leaders in Sustainability. (4) (Formerly numbered Environmental Science and Engineering 277.) Lecture, three hours. Common course for all students participating in Leaders in Sustainability Program, including those from engineering, law, management, public policy, public health, natural and social sciences, and others. Creation of environment for academically based discussions on various sustainability-related themes, capitalizing on wide mix of disciplines represented among participating students. Sessions feature UCLA faculty members, external speakers, and leadership skills to help students learn more about how to best put their interests in sustainability to use. Letter grading.

401A. Environmental Science and Engineering Problems Course. (8) (Formerly numbered Environmental Science and Engineering 400A.) Seminar, 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 courses 400B and 400C).

400B. Environmental Science and Engineering Problems Course. (8) (Formerly numbered Environmental Science and Engineering 400B.) Seminar, eight hours. Requisite: course 400A. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. In Progress grading (credit to be given only on completion of course 400C).

401C. Environmental Science and Engineering Problems Course. (8) (Formerly numbered Environmental Science and Engineering 400C.) Seminar, eight hours. Requisite: course 400B. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. Letter grading.

400D. Environmental Science and Engineering Problems Course. (8) (Formerly numbered Environmental Science and Engineering 400D.) Seminar, eight hours. Preparation: successful completion of internship approved by doctoral committee and program director. Requisite: course 400C. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. Letter grading.

410A-410B-410C. Environmental Science and Engineering Workshops. (2-2-2) (Formerly numbered Environmental Science and Engineering 410A-410B-410C.) Seminar, two hours. Primarily designed for environmental science and engineering doctoral students who are conducting problems courses. Development of multidisciplinary approach to problem solution for environmental problems studied within courses 400A through 400D. Development of presentation skills. S/U grading.

M412. Effective Technical Writing. (2) (Formerly numbered Environmental Science and Engineering M412.) (Same as Environmental Health Sciences M412.) Lecture, one hour. Essentials of grammar, punctuation, syntax, organization, and format needed to produce well-written journal articles, research reports, memoranda, letters, and résumés. Emphasis on accuracy, clarity, conciseness, and avoidance of common errors in advanced technical writing, using critique, exercises, and examples. S/U grading.

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

596. Directed Individual or Tutorial Studies. (2 to 8) (Formerly numbered Environmental Science and Engineering 596.) Tutorial, to be arranged. Supervised investigation of advanced environmental problems. S/U grading.
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Patricia E. Phelps, Vice Chair

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Gene D. Block, Ph.D., Chancellor
Scott H. Chandler, Ph.D.
V. Reggie Edgerton, Ph.D.
Gordon L. Fan, Ph.D.
Alan Garfinkel, Ph.D.
David L. Glanzman, Ph.D.
Fernando Gómez-Pinilla, Ph.D., in Residence
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Ben W. Miller, Ph.D.
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Valerie V. Hunt, Ed.D.
Glen H. Egstrom, Ph.D.
Camille Brown, Ed.D.

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Fernando Gómez-Pinilla, Ph.D.

Advisement
Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Physiological Science 107, 111A, 111B, 111L, Chemistry and Biochemistry 153A, 153L.
A total of five upper division physiological science electives is required. Eight units of course 199 or 4 units each (8 units total) of courses 198A and 198B, for students in the departmental honors program, may be applied toward the elective requirement. One 200-level graduate course may be applied toward the elective requirement with departmental approval.
Courses 189HC, 191H, 192, 193, 195, 196, and graduate courses at the 300, 400, or 500 level may not be applied toward the elective requirement.

Honor 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 advisor, the undergraduate affairs committee confers departmental honors at graduation.

Graduate Study

Graduate Degrees,
Available at the Graduate Division website, http://grad.ucla.edu/gsasa /library/pgmgintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Department of Integrative Biology and Physiology offers the Master of Science (M.S.) degree in Physiological Science.

Physiological Science
Lower Division Courses

3. Introduction to Human Physiology. (Sem) Lecture, three hours; laboratory, two hours. Not open to Physiological Science majors. Courses 3 and 5 may be taken independently, concurrently, or in either sequence. Understanding of human body, its organization from molecular to cellular to tissues and organs, and how component parts function in integrated manner to permit life as we know it. P/NP or letter grading.
5. Issues in Human Physiology: Diet and Exercise. (5) Lecture, three hours; discussion, 90 minutes; laboratory, five hours. Preparation: basic knowledge of Physiological Science majors. Basic introduction to principles of human biology, with special emphasis on roles that exercise and nutrition play in health, and prevention and management of such illnesses as hypertension, diabetes, and heart disease. P/NP or letter grading.


7. Science and Food: Physical and Molecular Origins of What We Eat. (5) Lecture, three hours; laboratory, two and one half hours. Preparation: high school chemistry, mathematics, physics. What makes lettuce crispy and some cuts of meat chewier than others? Exploration of origins of food texture and flavor, using concepts in physical sciences to explain macroscopic properties such as elasticity and phase behavior, as well as physiological role of food molecules in plants and animals we eat. Letter grading.


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

100. Experimental Statistics. (4) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/NP or letter grading.

CM102. Basic Human Biology for Bioengineers I. (4) (Same as Bioengineering CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and organization of human body (organ/issue) by structural survey, 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.


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 skeletomuscular systems, with introduction to biomechanical principles. Letter grading.


111A-111B. Foundations in Physiological Science. (6-8) Lecture, four hours; discussion, two hours. Letter grading. 111A. Requisites: course 107, Chemistry 14C or 30A, Life Sciences 1, 2, 3, 4, 23L, Physics 1B or 6B or 6CH. Students must receive grade of C or better to proceed to next course in series. Introduction to principles of systems physiology, including endocrinology, transport physiology, and cardiovascular and pulmonary physiology.

111L. Physiological Science Laboratory. (3) Laboratory, four hours. Requisites: courses 111A and 111B, with grades of C- or better. Required of Physiological Science majors to illustrate physiological principles studied in courses 111A, 111B. Letter grading.

124. Molecular Biology of Aging. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Life Sciences 153A or 153B. Preparation: introduction to molecular biology, including factors controlling membrane excitability, neuronal circuits, sensorimotor regulation, special senses, cortical functions, and neuronal plasticity. 111B. Requisites: course 111A, Chemistry 14D or 30B. Students must receive grade of C or better to proceed to next course in series. Introduction to principles of systems physiology, including endocrinology, transport physiology, and cardiovascular and pulmonary physiology. Letter grading.

125. Molecular Systems Biology. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Life Sciences 153A or 153B. Preparation: introduction to molecular biology that underlie myriad phenomena in living cells. Topics include various -omics fields and high-throughput technologies, network biology, and systems biology. Discussion of new molecular biology, emerging bioinformatic approaches, and systems modeling integrated with discussions of their applications in disease-related research. Review of recent literature to gain overall perspectives about new science of systems biology. Letter grading.

C126. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M180A and M180B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Biological basis of these daily rhythms or circadian rhythms. Exploration of molecular, cellular, and systems-level organization of these timing systems. Temporal role of these variations in maintaining homoeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course C226. Letter grading.

133. Exercise Physiology. (5) Lecture, three hours; laboratory, two hours. Preparation: 111B. Effectively recommended: course 111B and 111B. Exercise and its effects on human physiology, including factors controlling membrane excitability, neuronal circuits, sensorimotor regulation, special senses, cortical functions, and neuronal plasticity. 111B. Requisites: course 111A, Chemistry 14D or 30B. Students must receive grade of C or better to proceed to next course in series. Exploration of therapies to promote plasticity in nervous system to regain normal hand function. Letter grading.

C144. Neural Control of Physiological Systems. (5) Lecture, four hours. Requisites: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder and bowel control. Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C244. Letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Neuroscience M145.) Lecture, four hours. Requisites: course 111A or M180A or Neurosciences M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

146. Principles of Nervous System Development. (4) Lecture, three hours; discussion, 90 minutes. Requisites: courses 111A and 111B (or M180A or Neuroscience M101A). Examination of vertebrate nervous system as series of integrated steps beginning with several embryonic cells and culminating as 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; research, demonstration, one hour. Requisites: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.

M148. Neural Signatures of the Brain. (4) (Same as Neuroscience M148.) Lecture, three hours; discussion, one hour. Requisites: courses 111A (or M180A or Neuroscience M101A), M180B (or Neuroscience M102A or Chemistry 153A), consideration of brain function, with focus on cellular physiology and functional neuroanatomy. Topics include neural excitability and synaptic transmission and function of specific neural circuits, auditory pathway, basal ganglia, cerebellum, hippocampus, and neocortex. Letter grading.

149. Mechanisms of Major Human Diseases. (4) Lecture, three hours. Requisites: courses 111A, 111B (or M180A). Understanding of how diseases arise and the pathophysiology behind them. Introduction to the use of basic science knowledge to understand disease and design therapeutic interventions. Letter grading.
es presented in terms of changes in cell biology and function, and changes in regulation of intercellular interactions. Letter grading.


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 and neurovascular supply.

154. Cellular Communication and Regulation of Physiological Processes. (4) Lecture, three hours. Limited to 15 credit hours; oral translation of concepts, with focus on role of receptors, G proteins, and intracellular messengers such as cAMP and calcium. Integration of these concepts with variety of physiological processes, including stimulus-secretion coupling, vascular smooth muscle contraction, and role of growth factors in cell proliferation. Contemporary scientific research articles used as basis for material presented. Students required to present journal article for discussion. Letter grading.

155. Development and Structure of Musculoskeletal System. (4) Requisite: course 111B. Development, histology, 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 behavior of the intact system.

156. Comparative Animal Physiology. (4) Lecture, three hours; laboratory, four hours. Requisites: Life Sciences 1, 2, 3, 23L. Physiological response and function at molecular, cellular, system, and whole organism levels of variety of animals to range of environmental conditions. Major topics include neural and neurovascular supply. Examination of cinematographic, force platform, and digital computer techniques to characterize and evaluate kinematic and kinetic components of movement. Topics include biostatics, biomechanics, and modeling. Concurrently scheduled with course C252. Letter grading.

157. Physiology of Nutrition. (4) Lecture, four hours. Limited to senior Physiological Science majors. Topics include physiological adaptation to starvation and physiological responses to oxidants/antioxidants, vitamins, minerals, photochemicals, and their relationship to common chronic diseases and physiology of fuel utilization, respiration, acid-base balance, and anaerobic exercise. Letter grading.

158. Ideas and Experiments in History of Physiology. (4) (Same as Neurobiology M168.) Lecture, three hours. Historical perspective and experimental techniques in physiology from the early 19th to latter 20th centuries, including heart and circulation, hormones, nutrition and vitamins, 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.

173. Anatomy and Physiology of Sense Organs. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A, or M180A and M180B, or Molecular, Cell, and Developmental Biology M175A and M175B. Focus on sensory receptors 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.

177. Neuroethology. (5) Lecture, four hours; discussion, two hours. Requisite: course 111A or M180A. Physical properties of animal signals and physiological mechanisms underlying their generation. Topics include classical neuroethological models: acoustic and vibration communication in vertebrates, sound localization in owls, electroreception and electromechanical communication in electric fish, and neurobiology of birdsong. Letter grading.


M180B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A) or Psychology 115, Life Sciences 3, 4 (may be taken concurrently). Molecular biology of channels and receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular gradient are developmental neurobiology. P/NP or letter grading.

M180C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisite: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A) or Psychology 115. Neural mechanisms underlying motivation, learning, memory, and behavior. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Psychiatry M181, and Psychology M117L.) Lecture, three hours. Requisites: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A) or Psychology 115. Underlying brain systems involved in psychiatric symptoms and disorders, including schizophrenia, depression, bipolar disorder, obsessive-compulsive disorder. Provides basic understanding of brain dysfunction that contribute to disorders and rationales for pharmaceutical treatments. P/NP or letter grading.


191H. Honors Seminars: Current Topics in Physiology. (4) Seminar, four hours. Requisites or corequisites: courses 198A, 198B. Limited to neuroscience and physiological scientific honors program students. Designed for juniors/seniors and required of departmental honors students. Presentation of primary paper from physiology literature. Reading and critical evaluation of current research. Letter grading and evaluation of student laboratory research hypothesis, approach, and results in form of oral and poster presentations. Letter grading.

192. Practicum in Systems Anatomy for Undergraduate Assistants. (3) Seminar, two hours; additional hours in laboratory setting, to be arranged. Requisite: course 107. Limited to juniors/seniors. Training and supervised practical systems anatomy for undergraduate assistants. Consult Undergraduate Office for further information. May not be applied toward elective requirements and may not be repeated for credit. Departmental application required. P/NP or letter grading.

193. Journal Club Seminars: Physiological Science. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in field. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Physiological Science. (2) Formerly numbered 194.) Seminar, two hours. Required of undergraduate students in research groups such as MARC and UC蕾 programs. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Science. (1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199. Limited to juniors/seniors. Involvement in weekly laboratory research group meetings to encourage student participation in research and to stimulate progress in specific research areas. Discussion of use of specific research methods and current literature in field or of research of faculty members or students. May be repeated for credit. P/NP grading.

195. Field Studies in Physiological Science. (4) Tutorial, one hour; fieldwork, eight hours. Limited to seniors. Supervised field studies in specific careers related to physiological science. May not be repeated for credit and may not be applied toward elective requirements for major. Individual contract with supervising faculty member required. May be repeated for credit. Consult department. Individual contract required. P/NP grading.

198A. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 111A, 111B. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Directly independent research for departmental honors with faculty member, including definition of research topic and extensive reading and research in field of proposed honors thesis. May be repeated for credit. Individual contract required. In Progress grading. (Credit to be given only on completion of course 198B).

198B. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisite: course 198A. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors with faculty member, including definition of research topic and extensive reading and research in field of proposed honors thesis. May be repeated for credit. Individual contract required. Letter grading.

198C. Advanced Studies for Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisite: course 198B. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Additional course to provide further re-
search opportunities for departmental honors students. Development and completion of honors thesis or concentrated research project under direct supervision of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Physiology. (2 to 4) Tutorial, 12 hours. Requisites: a minimum grade of C- in 182A. Tutorial to be directed by an instructor designated by the Department. Permission of instructor and approval of undergraduate affairs chair during first week of classes. Only 3 units of credit may be applied toward graduation for major. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Advanced Experimental Statistics. (4) (Same as Biostatistics M220.) 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.

M202. Cellular Neurophysiology. (4) (Same as Neuroscience M220F and Neuroscience M202.) Lecture, three hours; discussion, two hours. Requisites: course 111A (or M180A or Physics 6B), 166. Advanced course in physiology of nervous systems 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 Physiology for Bioengineers II. (4) (Same as Bioengineering CM204.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiology Science majors. Introduction to statistical analysis of physiological data. Requisites: advanced mathematics and statistics. Letter grading.

CM207. Molecular and Cellular Mechanisms of Neuroregulation. (5) (Same as Neuroscience M207.) Lecture, four hours; laboratory, two hours. Preparation: one year of college biology. Examination of the brainstem mechanisms responsible for controlling motor and autonomic functions. S/U or letter grading.

C226. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M180A and M180B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Biological basis of these daily rhythms or circadian rhythms. Examination of the cellular and molecular basis underlying and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.

235. Advanced Dynamical Systems Modeling of Physiological Processes. (5) Lecture, four hours; laboratory, two hours. Examination of the cellular and molecular basis underlying and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. 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. Molecular and cellular mechanisms will be developed by combination of lecture and open discussion. Concurrently scheduled with course C137. Letter grading.

245. Neural Mechanisms Controlling Movement. (5) Lecture, four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.


M255. Seminar: Neural and Behavioral Endocrinology. (2) (Same as Neuroscience M255 and Psychology M254.) Seminar, one hour; discussion, one hour. Permits: advanced and honors students only. T/F or S/U. Letter grading.


270A-270B-270C. Modern Concepts in Physiology. (4-4-4) Lecture, two hours; discussion, two hours. Study and evaluation of primary research literature. Study of foundations of modern techniques in physiology research, analysis of research design. Letter grading.

270A. Modern Concepts in Physiology. (4) Lecture, four hours. Preparation: laboratory and theory. Examination of the cellular and molecular basis underlying and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.

270B. Modern Concepts in Physiology. (4) Preparation: laboratory and theory. Examination of the cellular and molecular basis underlying and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.

270C. Principles of Experimental Physiology. (4) Preparation: laboratory and theory. Examination of the cellular and molecular basis underlying and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.


291A-291B-291C. Seminars: Cardiovascular Function and Adaptation. (2 to 4 each) Seminar, two to four hours. Selected topics on cardiovascular function and adaptation. Students required to present two to four seminars. Letter grading.

292. Evolution and Development of Auditory System. (2 or 4) Seminar, two hours. Discussion of specific topics related to evolution, embryology, neurogenesis, cytodifferentiation, and onset of function of auditory system, with special attention to central pathways. Emphasis on primary literature sources as well as current methodological approaches. Two-hour seminar presentation required for 2 units; seminar paper and two-hour seminar presentation required for 4 units. S/U or letter grading.

ic aspects of exercise, and mechanics of connective tissue. Students required to present two-hour semi-
inar. S/U or letter grading.

294. Recent Advances in Neurophysiology. (1) Se-
minar, one hour. Requisite: Life Sciences 2 or under-
graduate degree in science. Critical examination and
discussion of recent data and publications that focus on synapses and related presentations, readings,
and participation in discussions required. S/U grad-
ing.

295A-295B-295C. Seminars: Cellular Neurosci-
ence. (2 to 4 each) (Formerly numbered M295A-
M295B-M295C.) Seminar, two to four hours. Requi-
site: course M202. Selected topics in sensory trans-
duction, cellular integration, synaptic processing, cen-
tral nervous system function, and learning. Students
required to present two-hour seminar. S/U or letter
grading.

(2) Review of literature, discussion of original re-
search, and analysis of current topics in physiological
science. May not be applied toward M.S. or Ph.D.
course requirements. May be repeated for credit. S/U
grading.

297. Seminar: Muscle Cell Biology. (2 to 4) Se-
imar, two hours. Selected topics in muscle cell biology.
Students required to present two-hour seminar. May
be repeated for credit.

298. Seminar: Nervous System Development. (1 to
2) Seminar, two hours. Selected topics in develop-
mental neurobiology, such as neuronal migration, ax-
nonal guidance, gene expression, and synaptogenesis.
Weekly primary literature student presentations. One-
hour seminar presentation on assigned weekly read-
ning required of all students; students enrolled for 2
units must also complete written analysis of additional
primary literature papers. May be repeated for credit.
S/U or letter grading.

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

495. In-Service Practicum for Teaching Assistants
in Physiological Science. (2) Seminar, to be ar-
anged. Required of all teaching assistants. Super-
vised practicum in teaching laboratory courses in
physiological science; material preparation and use of
teaching aids. May not be applied toward degree re-
quirements. May be repeated for credit.

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. Individual Studies for Graduate Students. (2
to 8) Tutorial, to be arranged. To enroll for letter
grade, petition signed by faculty sponsor, graduate
adviser, and graduate affairs committee chair must be
submitted prior to end of second week of class. Eight
units may be applied toward degree requirements for
M.S. or Ph.D degree, provided that students enroll in
two different 4-unit 596 courses in different laborato-
ries under supervision of different mentors. Term pa-
per required for letter grading. S/U or letter grading.

597. Preparation for M.S. Comprehensive Exami-
nation or Ph.D. Qualifying Examinations. (2 to 16)
Tutorial, to be arranged. To enroll, student's comprehensive
examination chair or Ph.D. committee chair must not be applied toward
M.S. or Ph.D. course requirements. May be repeated
as necessary. S/U grading.

598. Research for and Preparation of M.S. Thesis.
(2 to 16) Tutorial, to be arranged with faculty member
serving as student's thesis committee chair. May not
be applied toward M.S. course requirements. May be
repeated as necessary. S/U grading.

599. Research for and/or Preparation of Ph.D. Dis-
sertation. (2 to 16) Tutorial, to be arranged. May not
be applied toward Ph.D. course requirements. May be
repeated as necessary. S/U grading.

INTERNATIONAL AND AREA STUDIES

The International and Area Studies premajors must complete a cap-
stone seminar or travel abroad program in which they engage in an in-depth analysis of a
specific region or a thematic subject that spans regions. Through conceiving and executing a
project, students demonstrate their working knowledge of scholarly discourse relative to a
specialized topic. Student research, analytic, and writing skills are exhibited through their
capstone work, along with their collaborative and oral communication skills.

African and Middle Eastern Studies B.A.

Capstone Major

The African and Middle Eastern Studies major allows students to analyze the area or a subre-
region (e.g., Middle east, North Africa, Arab states, sub-Saharan Africa) from an interdisci-
plinary and modern perspective. The major seeks to ground students in broad international
issues that they can then use to focus on particular concerns of that part of the world.

Admission

Admission to the African and Middle Eastern Studies major is by application only. To be eligi-
bly to apply, students must have completed all nonlanguage preparation for the major courses
and the foreign language course through at least level 3 (elementary level). Any remaining
language courses may be completed after students have been accepted to the major. Each
preparation for the major course must be taken for a letter grade, and students must have a UC
grade-point average of 2.0 or better in those courses.

The application period is once per year, and students must apply no later than the end of Fall Quarter of their junior year.

Meeting the above minimum requirements does not guarantee admission to the program.
Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

African and Middle Eastern Studies Premajor

Incoming freshman and transfer students may be admitted as African and Middle Eastern Studies premajors on acceptance to UCLA. Premajors must apply for major stand-
ing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.
Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Afrikaans 40, Art History 55A, Geography 88B, History 9D, 10B, 97F, 97J, Honors Collegium 10, 24, Middle Eastern Studies 50C, Portuguese 40A, or Theater 4, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., African Languages 2C, 8C, 12C, 16, 18, 26, 32C, 36, 42C, 46, 62C, Arabic 102C, Armenian 102C, Berber 102C, Hebrew 102C, Iranian 102C, Turkic Languages 102C, 112C, 116C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the African and Middle Eastern Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of Fall Quarter of their junior year.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.


Asian Studies B.A.

Capstone Major

The Asian Studies major allows students to analyze the area or a subregion (e.g., Central Asia, East Asia, South Asia, Southeast Asia) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Admission

Admission to the Asian Studies major is by application only. To be eligible to apply, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

The application period is once per year, and students must apply no later than the end of Fall Quarter of their junior year.

Meeting the above minimum requirements does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Asian Studies Premajor

Incoming freshman and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajors must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 56A, 56B, Asian 70A, 70B, 70C, Chinese 50 (or 50W), M60 (or M60W), General Education Clusters 25A, History 9A, 9C, 9E, 11B (or 11BH), 97G, 97M, 97N, International and Area Studies 31, 33, Japanese 50, 70, Korean 50, M60, South Asian M60, Southeast Asian M60, or 90, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Chinese 6 or 6A, Filipino 6, Hindi-Urdu 6, Indonesian 6, Japanese 6, Korean 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Asian Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for major standing at the end of Fall Quarter of their junior year.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.
422 / International and Area Studies
division courses divided among area studies
and international themes courses. To count as
one 4-unit course, 2-unit courses must either
be taken twice or two courses from the same
category (if applicable) may be taken. Each
course must be taken for a letter grade, with a
minimum overall grade-point average of 2.0.
Area Studies: (1) Three humanities and arts
group 1 courses from Art History C115A,
C115B, C115C, C115G, C180C, Asian 120,
130, 151, 152, 161, 162, 163, Chinese 120,
130A, 130B, 135, 139, C150A, 150B, 151, 152,
154, 155, C156, 157, CM160, 165, 174, 176,
180, 185, 191B, Comparative Literature M176,
C178, Ethnomusicology 146, 147, C150,
C156A, 156B, 157, 158A, 158B, 158C, C159,
160, 161B (2 units), 161D (2 units), 161F (2
units), Japanese C112, 130A, 130B, 130C,
C131, C150, 151, 154, 155, 157, 158, CM160,
161, 170, 175, C177, C182, C186, 191B, Korean C105A, C105B, C105C, 130A, 130B,
C149, 151, 154, 155, CM160, 172, 177, 178,
180C, 181, 182, 183, 187, 191B, South Asian
150, 155, Southeast Asian 130, 135, 140, 157,
Theater 102A, 102B, Vietnamese M155, 180B;
(2) three social sciences group 1 courses from
Anthropology M155, 175Q through 175V, 175Y,
Asian American Studies 171A through 171E,
M172C, Gender Studies M164A, M170C,
M173B, Geography 139, 158, 185, 186, History
170B, 170D, 172C, M173C, 174C, 175A, 175C,
176B, 176C, Political Science 135, 136, 158,
159A, 159B, 160, Sociology 179, 181A, 181B;
and (3) one additional elective course selected
from either item 1 or 2 above.
International Themes: (1) Two international politics and markets courses from Anthropology
153P, Economics 111, 112, 121, 122, Environment 122, M134, Geography M128, 140, 148,
International Development Studies 150, Management 109, 127C, Political Science 120B,
122A, M122B, 123A, 123B, 124A, 124B, 125A,
126, 129, 134, 137A, 137B, 138B, 150, 166,
167A, M167C, 167D, 168, Sociology 182, 183,
Urban Planning M165 and (2) two international
societies and cultures courses from Anthropology 130, 150, 152, 153, 161, 167, M168, Art
History C180A, Communication Studies 122,
179, Comparative Literature 100, C173, Environment M133, Film and Television 110C, 112,
Geography M109, 110, 121, 133, 138, 142,
147, 151, 159C, History M187A, Honors Collegium M152, International Development Studies
100A, Sociology 116, 151, 154, 184, 191D,
191F, World Arts and Cultures M130.
The area studies electives listed above (group
1) focus on contemporary issues of that region
after 1750. Students may substitute a maximum of three upper division courses with focus
on earlier historical aspects of the region or on
diasporas with origins related to the region toward the area studies electives as long the distribution between humanities and arts and social sciences is maintained. They may be selected from either of the following lists:
humanities and arts group 2: Art History 114A,
114C through 114G, C115D, C115E, C115F,
C140A, C140B, C140C, Asian 164, Chinese
C138, 140A through 140D, M153, C175, 182,

M183, 184, 186, 191A, Comparative Literature
M168, Japanese 140A, 140B, 140C, C149,
165, 172, C173, 191A, Korean 150, 175, 176,
180A, 180B, 184A, 191A, South Asian CM160,
185, Vietnamese 180A or social sciences
American Studies 111, 113, 121, 122B, 130A,
M130C, 131A, 131B, 131C, 132A, 133, 134,
History 152, 169A, 170A, 172A, 172B, 174A,
M174D, M175B, 176A, 176D.

European Studies B.A.
Capstone Major
The European Studies major allows students to
analyze the area or a subregion (e.g., Central
and Eastern Europe, Mediterranean Europe,
Scandinavia,
Western
Europe/European
Union) from an interdisciplinary and modern
perspective. The major seeks to ground students in broad international issues that they
can then use to focus on particular concerns of
that part of the world.

Admission
Admission to the European Studies major is by
application only. To be eligible to apply, students must have completed all nonlanguage
preparation for the major courses and the foreign language courses through at least level 3
(elementary level). Any remaining language
courses may be completed after students have
been accepted to the major. Each preparation
for the major course must be taken for a letter
grade, and students must have a UC gradepoint average of 2.0 or better in those courses.
The application period is once per year, and
students must apply no later than the end of
Fall Quarter of their junior year.
Meeting the above minimum requirements
does not guarantee admission to the program.
Admission is on a competitive basis, using the
above qualifications as minimum standards for
consideration.

European Studies Premajor
Incoming freshman and transfer students may
be admitted as European Studies premajors on
acceptance to UCLA. Premajor students must
apply for major standing at the end of Fall
Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major
Required: (1) International and Area Studies 1,
(2) one area studies course from Central and
East European Studies 91, Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88G,
French 12, 14 (or 14W), 41, 60, German 50B,
57, 59, 61A through 61D, 62W, History 1C (or
1CH), 97C, International and Area Studies 40,
Italian 42B, 46, 50B, Portuguese 40A, Romanian 90, Russian 25 (or 25W), 30, 31, 32, 90B
(or 90BW), Scandinavian 50 (or 50W), Slavic
88, 90, Spanish 42, (3) two international politics
and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and
cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Ethno-

musicology 5, 25, Geography 3, History 2B, 22,
World Arts and Cultures 20, 33, and (5) one
area-related foreign language sequence
through the intermediate level (e.g., Czech
102C, Dutch 103C, French 6, German 6, Hungarian 102C, Italian 6, Polish 102C, Portuguese 3, Romanian 102C, Russian 6, Scandinavian 5, 15, 25, 29, Serbian/Croatian 102C,
Spanish 5, Ukrainian 102C, Yiddish 102C). The
language requirement can also be fulfilled in
part or in total by taking a placement examination given through the appropriate language
department. Each course must be taken for a
letter grade.
Transfer Students
Transfer applicants to the European Studies
premajor with 90 or more units must complete
the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and
two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer
students must apply for the major by the end of
Fall Quarter of their junior year.
Refer to the UCLA Transfer Admission Guide at
http://www.admissions.ucla.edu/prospect/adm
_tr.htm for up-to-date information regarding
transfer selection for admission.

The Major
The major consists of International and Area
Studies 191 (capstone seminar) and 11 upper
division courses divided among area studies
and international themes courses. To count as
one 4-unit course, 2-unit courses must either
be taken twice or two courses from the same
category (if applicable) may be taken. Each
course must be taken for a letter grade, with a
minimum overall grade-point average of 2.0.
Area Studies: (1) Three humanities and arts
group 1 courses from Art History 110A through
M110D, Central and East European Studies
126, Comparative Literature C163, C164,
Dutch 113, 131, English 115B, 164A, 164B,
164C, Ethnomusicology 133, 161C (2 units),
Film and Television 106B, French 114C, 119,
120, 131, 132, 138, 139, M140, 141, German
102, 103, 104, 110, 112, 160, 161, 162, 164,
165, 166, 173, 174, Italian 102C, 120, 121,
150, M158, Jewish Studies M182D, Polish
152B, 152C, Russian 107B, 120, 121, 122,
123, 125, 126, M127, 128, 130A, 130B, 130C,
131, M132, 140A through 140D, 150, Scandinavian C141A, 141C, CM144A, 155, 156, 157,
161, C163A, C163B, C163C, 173A, C174A,
174B, C180, Slavic 125, Yiddish 131A, 131B;
(2) three social sciences group 1 courses from
Economics 181, Geography 152, 183, History
120A, 120B, 120C, 121D, 121E, 121F, 122F,
123B, 123C, 124B, 124C, 125B, 125C, 125D,
127B, 127C, 127D, 129B, 131A, 131B, 134B,
134C, 135C, 136B, 136C, 183A, 183B, Honors
Collegium 173A, Political Science 127A, 127B,
128A, 128B, 152A, 152B, 152C, 153A, 153B,
156A, 156B, 156C, Sociology M166; and (3)
one additional elective course selected from either item 1 or 2 above.


Admission

Admission to the Latin American Studies major is by application only. To be eligible to apply, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

The application period is once per year, and students must apply no later than the end of Fall Quarter of their junior year.

Meeting the above minimum requirements does not guarantee admission to the program.

The Major

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

ulty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Consult the academic counselor for further details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements
Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members — the chair of International and Area Studies and the faculty adviser of the student.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an exceptional honors thesis (approximately 35 to 50 pages) determined to be of highest honors quality by a committee of two faculty members — the chair of International and Area Studies and the faculty adviser of the student. Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

African and Middle Eastern Studies Minor
The African and Middle Eastern Studies minor 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 and have completed 45 units.

Required Lower Division Courses (8 units): 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, Middle Eastern Studies 50A, 50B, 50C, Political Science 20, 50, Sociology 1.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than 8 to 10 units (two courses) may be applied toward both this minor and a major or minor in another department or program.

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

African Studies Minor
The African Studies minor offers students an interdisciplinary curriculum in the humanities and social sciences through which they can explore the histories, languages, arts, cultures, literatures, politics, societies, economies, and other issues relevant to Africa.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all preparation requirements for the minor with a minimum grade-point average of 2.0 in those courses. After satisfying the preparation requirements, students may declare the minor on consultation with the academic counselor.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two upper division courses (8 to 10 units) may be applied toward both this minor and students' majors.

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

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.

Required Lower Division Courses (8 units): History 8A or 8B or 8C or International and Area Studies 50, Spanish 25 or Portuguese 27.

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.

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

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

South Asian Studies Minor

The South Asian Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, society, and languages of South Asia. The minor includes the introductory study of one South Asian language, one lower division course on South Asian history, and five upper division courses that focus on some aspect of the history, culture, politics, religions, and artistic heritage of South Asia.

To enter the minor, students must be in good academic standing with a 2.0 grade-point average or better and have completed 45 units and at least one lower division course (other than a language course) in South Asian studies.

Required Lower Division Courses (10 units maximum): History 9A and completion of the third term of either Hindi (Hindi-Urdu 3 or 3R) or Sanskrit (South Asian 110C) or by demonstrated proficiency as determined by a placement examination. Proficiency in other South Asian languages, such as Gujarati, Bengali, Marathi, Tamil, Telugu, Pashto, or Urdu, may be accepted by petition, pending completion of a placement examination to be administered at UCLA or approval of an alternative and recognized course of language study.

Required Upper Division Courses (20 units minimum): Five courses, with no more than two from any single discipline or department, to be selected from Anthropology 116, Art History 114A, 114D, C115A, C180C, Asian 151, 162, 163, 164, Asian American Studies M172A, Ethnomusicology 146, 147, History 174A through M174E, 175A, M175B, 175C, 185B, 185C, Islamics 110, 130, 151, South Asian 115, 150, 175, 185.

Variable or selected topics courses fulfill minor requirements only when the content focuses substantially on South Asia. Other courses with substantial South Asian content of at least 50 percent (as determined by the course instructor) may be applied concurrently with prior approval of a petition filed with the academic counselor. Up to 12 units taken through a study abroad program may be applied toward the minor, though no more than 8 of the units may be applied toward the 20 units of upper division coursework.

Independent studies courses (197 or 199) may not be applied toward the minor.

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

No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

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

Southeast Asian Studies Minor

The Southeast Asian Studies minor is designed for students who wish to augment their major with a concerted study of language, 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 nonlanguage preparatory course in Southeast Asian studies, and (3) meet with the academic counselor in 10357 Bunche Hall.

Required Lower Division Courses (13 units): History 9E, International and Area Studies 1, and completion of Filipino 3, Indonesian 3, Thai 3, or Vietnamese 3 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; Dance 112B, Ethnomusicology C159, 161B, 161H, 161M, Indonesian 100A, 100B, 100C, Southeast Asian 130, 135, 170A, 170B, 170C, Thai 100A, 100B, 100C, Theater 102B, Vietnamese 100A, 100B, 100C and (2) at least two social sciences and policy courses selected from Anthropology 175U, Asian American Studies 133, 134, M164, M171D, 171E, History 176A through 176E, 177A, 177B, 191M, Political Science 158, Southeast Asian 157.

For Ethnomusicology 161B, 161H, and 161M to count as one 4-unit upper division course to be applied toward the minor, any two of the courses may be taken once or any one course may be taken twice.

Variable or selected topics courses (e.g., Asian American Studies 191) 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 academic counselor.

Independent studies courses (197 or 199) may not be applied toward the minor.

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

No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program.

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

Study Abroad

All majors and minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Consult the Academic Counselor for more information on available programs.

More information about travel abroad programs is available through the UCLA International Education Office, B300 Murphy Hall, (310) 825-4995, ieo@international.ucla.edu. See http://www.ieo.ucla.edu.

International and Area Studies

Lower Division Courses

1. Introduction to International and Area Studies. (6) Lecture, three hours; discussion, one hour. Introduction to international and area studies from interdisciplinary framework, covering themes related to international politics and markets, as well as international societies and cultures, to illuminate and clarify profoundly international character of world we live in and to introduce set of contemporary issues and challenges that cross borders and affect every region of world. P/NP or letter grading.

21. Southeast Asia. (5) Formerly numbered Southeast Asian Studies 1.) Lecture, three hours; discussion, one hour when scheduled. Interdisciplinary course surveys selected from Southeast Asia as a region. P/NP or letter grading.

22. East Asia. (5) Formerly numbered East Asian Studies 101.) Lecture, three hours; discussion, one hour when scheduled. Interdisciplinary course surveys selected from East Asia. P/NP or letter grading.

31. Introduction to Southeast Asia. (5) Formerly numbered Southeast Asian Studies 1.) Lecture, three hours; discussion, one hour when scheduled. Interdisciplinary course surveys selected from Southeast Asia. P/NP or letter grading.

32. Introduction to Asia. (5) Formerly numbered East Asian Studies 101.) Lecture, three hours; discussion, one hour when scheduled. Interdisciplinary course surveys selected from Asia. P/NP or letter grading.

40. Introduction to Europe. (5) Formerly numbered European Studies 101.) Lecture, three hours; discussion, one hour when scheduled. Interdisciplinary course surveys selected from Europe. P/NP or letter grading.

50. Introduction to Latin America. (5) Formerly numbered Latin American Studies 97A.) Lecture, three hours; discussion, one hour when scheduled. Interdisciplinary course surveys selected from Latin America. P/NP or letter grading.

International and Area Studies / 425
Upper Division Courses

110A-110B. Field Studies in International and Area Studies. (4-4) (Formerly numbered East Asian Studies 191A-191B.) Seminar, three hours. Exploration of culture, economy, history, and politics of important locations around the world. Hands-on experiential programs offered for students participating in UCLA Travel Study Program. Field trips included to gain firsthand experience. May be repeated with topic and/or location change. Offered in summer only. S/P or letter grading.

188. Special Courses in International and Area Studies. (4) (Formerly numbered Southeast Asian Studies 188.) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

191. Variable Topics Senior Research Seminars: International and Area Studies. (4) (Formerly numbered Southeast Asian Studies 191.) Seminar, three hours. Enforced requisite: course 1. Limited to senior international and area studies majors. Organized on topic basis with readings, discussions, papers, and development of culminating project. May not be repeated for credit. Letter grading.

193. Colloquia and Speaker Series. (1) (Formerly numbered European Studies 193.) Seminar, two hours. Introduction to current scholarship in field of international and area studies. Attendance at selected presentations with required response papers. May be repeated for credit. P/NP grading.

198A-198B-198C. Honors Research in International and Area Studies. (4-4-4) (Formerly numbered Southeast Asian Studies 198A-198B-198C.) Tutorial, to be arranged. Limited to international and area studies honors program students. May be repeated for credit. Individual contract required. Letter grading.

198A. Supervised individual research or investigation under guidance of faculty mentor. Development and planning of honors thesis. 198B. Enforced requisite: course 198A. Supervised individual research or investigation under guidance of faculty mentor. Continued development and refinement of honors thesis. 198C. Enforced requisite: courses 198A and 198B. Final drafting and submission of completed honors thesis. Culminating paper of 35 to 50 pages required.

199. Directed Research in International and Area Studies. (4) (Formerly numbered East Asian Studies 199.) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be applied toward requirements via petition. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course

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

INTERNATIONAL DEVELOPMENT STUDIES

Interdepartmental Program College of Letters and Science

UCLA
10357 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487
(310) 825-5187
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e-mail: ids@international.ucla.edu
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Michael F. Lofchie, Ph.D., Chair

Faculty Committee
Andrew Agier, Ph.D. (Anthropology, History)
César J. Ayala, Ph.D. (Sociology)
Judith A. Carney, Ph.D. (Geography, Institute of the Environment and Sustainability)
Akhil Gupta, Ph.D. (Anthropology)
Patrick C. Heuveline, Ph.D. (Sociology)
Edmond Keller, Ph.D. (Political Science)
Nancy E. Levine, Ph.D. (Anthropology)
Michael F. Lofchie, Ph.D. (Political Science)
Sule Ozler, Ph.D. (Economics)
David L. Rigby, Ph.D. (Geography, Statistics)
Michael L. Ross, Ph.D. (Political Science)
Mary A. Yeager, Ph.D. (History)

Scope and Objectives

The International Development Studies major provides an opportunity for interdisciplinary study of the critical issues of the developing world, such as poverty, human rights, global health, civil war, economic growth, and global inequality. The curriculum is intended to familiarize students with some of the more important political, economic, social, and cultural realities of the developing regions of the world, such as Asia, Eastern Europe, Africa, the Middle East, and Latin America. The broad intellectual goal of the program is to help students understand why there are such vast socioeconomic disparities between the wealthier and poorer regions of the world and what the broader implications of these disparities are.

An understanding of these issues is indispensable for both practical and scholarly purposes. While encouraging the acquisition of theoretical and conceptual knowledge, the program is equally concerned with its practical application to global realities. The program, therefore, encourages field experience involving travel, study, and/or work in regions in the developing world.

Undergraduate Study

The International Development Studies major is a designated capstone major. Seniors must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Students completing the capstone should be able to demonstrate skills and expertise acquired in earlier coursework; identify, analyze, and select relevant data from primary and secondary sources; acquire a working knowledge of broader scholarly discourse; conceive and execute an original research paper; and engage with a community of scholars, presenting their work to peers as well as providing feedback on peers’ work. The seminar culminates in a written paper or project and a formal class report.

International Development Studies B.A.

Capstone Major

Admission

Admission to the International Development Studies major is by application only. To be eligible to apply, students must have first completed all nonlanguage preparation courses and the foreign language courses through at least level 3 (elemental level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. The application period is once per year, and students must apply no later than the end of Fall Quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

International Development Studies Premajor

Incoming freshman and transfer students may be admitted as International Development Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) Two courses from Economics 1, 2, Geography 4; (2) one statistics course from Economics 41, Political Science 6, 6R, Statistics 10, or 12; (3) three social sciences/area studies courses, each from a different category, selected from (a) Anthropology 9, (b) Gender Studies 10, (c) Geography 3, 5, 6, (d) Global Studies 1, (e) History 8A, 8B, 8C, 9A, 9D, 9E, 10B, 10BW, 11B, 22, International and Area Studies 31, 50, (f) Political Science 20, 50, 50R, (g) Sociology 1; and (4) demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the International Development Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two introductory macroeconomics, microeconomics, and/or economic geography courses; one statistics course; three courses, each from a separate category, selected from sociocultural anthropology, cultural or economic geography, cultural area studies, world history, comparative politics, and introductory sociology; and dem-
ondenstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Trans-fer students must apply for the major by the end of Fall Quarter of their junior year. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Each course must be taken for a letter grade. Students must earn a grade of C or better in International Development Studies 100A, M100B, and 150; no more than one of these three courses may be repeated. All three core courses must be taken prior to the capstone se-nior seminar 191 course.

Required: (1) International Development Stud-ies 100A, M100B, 150, 191; (2) one research methodology course from Anthropology 131, 139, Asian American Studies 103, 104A, 105, M108, 142A, 142D, 187A, 191A, Chicana and Chicano Studies M119, 123, 129, Economics 103, Education C126, Gender Studies 110A, Geography 163, Political Science 170A, Sociol-ogy 106A, 110, 113, Statistics 112, Urban Plan-nning M122; (3) three social and critical theory courses, each from a different department, from Anthropology 130, 150, 152, 153P, 161, 167, Economics 111, 112, Environment M132, M133, M161, Gender Studies 168, Geography 110, M115, 121, M128, 132, 133, 140, 142, 148, 155, 157, Political Science 122A, M122B, 124A, 150, 167A, 167D, 168, Sociology 101, M115, 116, 182, 183, 184, 191D, Urban Plan-nning 121, CM166; (4) two regional courses, ei-ther from the same or separate developing re-gions of the world (East Asia and East Central Asia, Eastern Europe and West Central Asia, Latin America and Caribbean Basin, Middle East and North Africa, South and Southeast Asia and Pacific Islands, Sub-Saharan Africa) and one disciplinary elective listed below:


Eastern Europe and West Central Asia: Anthropology 175R, Central and East European Stud-ies 126, Czech 155, Gender Studies M127, History 107C, 107T, 120A through 120D, 127B, 127C, Political Science 128B, 156A through 156D, Romanian 152, Russian 120, 121, 122, 125, 126, M127, 131, Serbian/Croatian 154, Slavic 125.


Honors Program
Majors who have completed International De-velopment Studies 100A, M100B, and 150 and who have a 3.5 grade-point average in all courses offered for the major are eligible to for-mally apply for the honors program. In addition to completing all courses required for the major, students must take courses 198A, 198B, and 198C, in which they research, write, and present an honors thesis. To receive honors at grad-uation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

Study Abroad
International Development Studies majors are highly encouraged to study abroad in develop-ing areas of the world. Students can do so through a variety of programs with various lengths (summer or during the academic year). More information about travel abroad programs is available through the UCLA International Edu-cation Office, B300 Murphy Hall, (310) 825-4959, ieo@international.ucla.edu. See http://www.ieo.ucla.edu.

International Development Studies
Upper Division Courses

100A. Introduction to Development Studies: Eco-nomic Development and Culture Change. (4) Lec-ture, three hours; discussion, one hour (when sched-uled). Preparation: some beginning experience in so-cial sciences at college level. Designed for juniors/se-niors. Broad historical and theoretical introduction to liberal and Marxist traditions in development studies, with focus on state, market, culture, ideology, and pol-itics of professional knowledge. Balance of general trends and positions with selected case studies in de-voping nations. Letter grading.

M100B. Introduction to Development Studies: Po-litical Economy of Development. (4) Same as Po-itical Science M167C.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for International Development Studies majors. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of eco-nomic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic develop-ment. Letter grading.

150. Economics of Developing Countries. (4) Lec-ture, three hours; discussion, one hour. Requisites: Economics 1 or 2, and one elementary statistics course. Economic analysis of developing countries. Issues underlying causes of underdevelopment and process of development. Topics include population growth, poverty, inequality, inflation, fiscal and mone-try policy, and alternative development strategies. Letter grading.

188. Special Courses in International Develop-ment Studies. (4) Seminar, three hours. Program-sponsered experimental or temporary courses on se-lected contemporary topics in international develop-ment taught by visiting instructors or affiliated faculty members. May be repeated for credit with topic change. P/NP or letter grading.


192. Undergraduate Practicum in International De-velopment Studies. (2) Seminar, two hours; practi-cum, to be arranged. Limited to juniors/seniors. Train-ing and supervised practicum for advanced under-graduate students to serve as undergraduate course assistants in international development studies cours-es. Students assist in preparation and presentation of materials and development of innovative programs with guidance of faculty members. Consult academic counselor for further information. May not be applied toward major requirements. May be repeated for cred-it. P/NP grading.

The undergraduate major in this discipline is called African and Middle Eastern Studies. For details, see International and Area Studies earlier 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), 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.

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).

Undergraduate Study

The Italian and Italian and Special Fields majors are designated capstone majors. Students are required to conceptualize, design, and complete an interdisciplinary research project or thesis. Through the capstone experience, students demonstrate their mastery of an area of Italian culture, as well as their skills in identifying and analyzing primary sources, integrating what they have learned in the course of their major studies, and presenting their work to peers under the guidance of a faculty mentor who facilitates discussion and peer review.

Italian B.A.

Capstone Major

The program of studies leading to the Bachelor of Arts in Italian consists of two distinct phases: preparation in the language and study of the literature and culture. While literature courses constitute the bulk of the program, good knowledge of the language is requisite to most upper division literature courses credited toward the major in Italian. The uniqueness of Italian is stressed at all levels of study. Detailed information on programs and specific degree requirements is available from the department.

Preparation for the Major

Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, or 50B.

Transfer Students

Transfer applicants to the Italian major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian and one Italian civilization or culture course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper division Italian courses, including 100, 103A, 103B, 199B (senior capstone course), one medieval to 18th century course from 113 through 118, one Enlighten-
ment to contemporary course from 119 through 125, and five elective courses from 113 through 191. With consent of the undergraduate adviser, students may substitute up to one each of Italian 195 and 199A and an upper division elective course from outside the department.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

Italian and Special Fields B.A.

Capstone Major

Students with special interests or professional goals may select the Italian and Special Fields major, with coursework divided between Italian and a collateral field. Study programs fulfilling requirements for the major have been developed with the departments and programs listed below.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

Transfer Students

Transfer applicants to the Italian and Special Fields major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian and closely related languages.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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, 180, 199B (senior capstone course), and two courses from 113 through 191 selected in consultation with the undergraduate adviser; courses from Anthropology 111, 112, M115A, M115B, C115R, 130, 133Q, 135A, 135B, 135C, 135S, 138, 139, 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, 199B (senior capstone course), and four courses from 113 through 191 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, 40W or 41W, and Greek 1, 2, 3 or Latin 1, 2, 3, or equivalent.

The Major

Required: Italian 100, 103A or 103B, 180, 199B (senior capstone course), and two courses from 113 through 191 selected in consultation with the undergraduate adviser; Greek 100 or Latin 100, one course from Classics 141 through 197, and one course from Greek 101A through 133 or Latin 101 through 133 (graduate seminars may be substituted for upper division major 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, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; four courses from English 100 through 113A, 114 through 139, 139 through 193C 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, 121, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from Film and Television 106A, 106B, 106C, 107, 108, 110A, 110C, 112 through 116, 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, 121, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; courses from French 114A, 114B, 114C, and three courses from 115 through 142 selected in consultation with the undergraduate adviser.

Gender Studies Field

Preparation for the Major

Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46; Gender Studies 10.

The Major

Required: Italian 100, 103A or 103B, M158, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; Gender Studies 110A or 110B, and five additional upper division courses from any of the gender studies course lists 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, 86.

The Major

Required: Italian 100, 103A or 103B, 180, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from History 100, 102, 119A through 119D, 121A through 123B, 128A, 128B, 131A through M133B selected in consultation with the undergraduate adviser.

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, 180, 199B (senior capstone course), and two courses from 113 through 191 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, two courses from Music History M10A, M10B, M10C.

The Major

Required: Italian 100, 103A or 103B, 125, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; five courses from Music History 125D, 125E, 125F, 135A, 135B, 135C, 191A through 1191G 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, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; Philosophy 100A, 100B, 100C, and three courses from M101A through 185 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, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from Political Science M111A through 113A, 116A 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, 46.

The Major
Required: Italian 100, 103A or 103B, 180, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; three courses from Portuguese 130A through 191 selected in consultation with the undergraduate adviser.

Spanish Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Spanish 1, 2, 3, 4, 5, 6, and one course from 113 through 191 selected in consultation with the undergraduate adviser; Spanish 120 and three courses from 130 through 150 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, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; one course from Theater 101A, 101B, 101C and five courses from 105, 111A, Classics 143A, English 150A, 150B, 150C, 172B 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, B300 Murphy Hall, or the Summer Sessions Office, 1147 Murphy Hall.

Honors Program
Admission
The honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis. Majors in Italian and in Italian and Special Fields with an overall grade-point average of 3.25 and a 3.5 GPA or better in Italian courses are eligible to participate in the honors program. Applications should be made during the last term of the junior year or early in the senior year. Consult the department adviser for more information.

Requirements
To qualify for graduation with honors, Italian majors must complete all requirements for the major and Italian 198 in the last term of the senior year in which they write a 15- to 20-page thesis in Italian on a subject expanding on one or more of the upper division courses they have taken. The thesis is written under the guidance of a departmental faculty member.

To qualify for graduation with honors, Italian and Special Fields majors must complete all requirements for the major and Italian 198 in which they write a 15- to 20-page thesis in Italian that combines their two disciplines of study. The thesis is written under the guidance of a departmental faculty member.

Successful completion of the honors program is indicated on the transcript and diploma.

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

Required Lower Division Courses (12 units):
Italian 5, 6, and one course from 42A, 42B, 46, 50A, 50B.

Required Upper Division Courses (20 units):
Italian 100 and four additional Italian courses.
Three of the four courses must be taught in Italian.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa /library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), 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.

8A-8B-8C. Italian Conversation. (2-2-2) Seminar, three hours. Enforced requisite for course 8A: course 2; for 8B: course 3; for 8C: course 4. Each course may be repeated once for credit. P/NP or letter grading.

9. Intensive Italian. (12) Lecture, 20 hours. Intensive language program equivalent to first year of college Italian courses 1, 2, 3, and designed to develop basic language skills. Offered in summer only. P/NP or letter grading.

42A-42B-42C. Italy through Ages in English. (5-5-5) Lecture; four hours; discussion; one hour. P/NP or letter grading.

42A. Early Modern Italy. Survey of Italy’s unique contribution to Western civilization in development of humanism and Renaissance learning, political and philosophical thought, science, architecture, and arts in cities such as Venice, Padua, Florence, Rome, and Naples. Works by Giotto, Michelangelo, Leonardo, Raphael, Machiavelli, Galileo, and Voltaire. (5-5)

42B. Modern and Contemporary Italy. Cultural and political developments from 18th century to present. Topics include Beccaria and opposition to death penalty and absolutism; Garibaldi, Italian Risorgimento, national liberation, and unification; Lombroso and criminality in new Italy; Mussolini and Fascism; Gramsci and Communism; Italian Catholicism; Berlusconi and media; migration and today’s multilingual Italy. Assigned works include relevant literature and memoirs, music, and film, as well as art and organized crime fiction and film. (5-5) Food and Literature in Italy. Profile of Italian history and culture through analysis of gastronomic and literary texts. Special emphasis on late Middle Ages, Renaissance, and Risorgimento.

46. Italian Cinema and Culture in English. (5) Lecture; screenings, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation’s primate artform, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, family, consumerism, liberalism and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, family, consumerism, liberalism and society, and politics. (5-5) Lecture, four hours; discussion, one hour. P/NP or letter grading.

50A-50B. Masterpieces of Italian Literature in English. (5-5) Lecture, five hours; discussion, one hour. P/NP or letter grading.
Upper Division Courses


102A-102B-102C. Italian Cultural Experience in English. (4-4-4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading.

102A. Roots of Western civilization; social and artistic achievements of Quattrocento society. Marco Polo, Dante, Boccaccio, Giotto, rise of Italian merchant class. 102B. Renaissance discovery of human genius; crucial period between Machiavelli and Galileo, leading Italy and Europe to scientific revolution. 102C. Birth of Italian nation from wars of independence to foundation of modern republic, delineated through narrative and cinema in historical context.

103A. Introduction to Classic Italian Literary and Cultural Studies. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Selected classic works of Italian literature, theater, art, and culture from medieval era to Renaissance and baroque. Emphasis on critical methods and skills for analyzing and interpreting wide range of Italian texts and cultural formations in their historical context and in comparison to contemporaneous views. Representative authors may include Saint Francis of Assisi, Dante, Petrarch, Boccaccio, Saint Catherine of Siena, Machiavelli, Giotto, Botticelli, Michelangelo, Leonardo, Caravaggio, Gaspara Stampa, Veronica Franco, Ariosto, Tasso, and Galilei. P/NP or letter grading.

103B. Introduction to Modern Italian Literary and Cultural Studies. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Selected modern works of Italian literature, theater, art, and culture from Enlightenment to present. Emphasis on critical methods and skills for analyzing and interpreting wide range of Italian texts and cultural formations in their historical context and in comparison to contemporaneous views. Representative authors may include Vico, Goldoni, Alfieri, Beccaria, Rosalba Carriera, Piranesi, Tiepelo, Leopardi, Manzoni, Pirandello, Aleramo, Marinetti, Bocchini, Modigliani, De Chirico, Calvino, Ortese, Pasolini, Franca Rame, and Dario Fo. P/NP or letter grading.

110. Dante in English. (4) Lecture, three hours. Close reading of Dante's greatest literary achievement, the Divine Comedy, the archetypal medieval journey through the afterworld. P/NP or letter grading.

113. Dante's La Divina Commedia. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of medieval philosophy, religion, and politics in La Divina Commedia, greatest literary achievement of the age. P/NP or letter grading.

114A-114B. Middle Ages. (4-4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. P/NP or letter grading. 114A. Tradition of Love from Sacred to Profane. Study of major love poems of all time (Dante, Dolce Stil Novo poets, and Petrarcha) caught between courtly and religious codes. 114B. Medieval Humor, Moralism, and Society. Novelty of Boccaccio's witty and comic masterpiece, Decameron, analyzed within context of moral and social codes of culture of time.

116A-116B. Italian Renaissance. (4-4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. P/NP or letter grading. 116A. Renewal of Art and Thought. Study of Italian humanists and their representatives in arts and humanistic thought (i.e., Mantegna, Botticelli, Pico, Valla, and Ficino). 116B. Power and Imagination in Renaissance. Study of artistic world of Leonardo, Raphael, Michelangelo, Titian, and literary masterpieces of Machiavelli, Castiglione, Ariosto, Tasso, in world molded by powerful political forces, such as Roman Popacy and Medici, Gonzaga, and D'Este courts.


120. Modern and Contemporary Literature. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of novels, short fiction, poetry, and drama in connection with modern and contemporary thought, politics, and culture. Authors may include D'Annunzio, Aleramo, Pirandello, Ungaretti, Montale, Pasolini, Ortese, Morante, Grinzburg, Calvino, Fo, Eco, Celati, and Tabucchi. P/NP or letter grading.

121. Literature and Film. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Comparative study of specific literary works and their adaptation into film and of different techniques in both media and forms of expression. Texts include literary works, screenplays, and works on literary and film theory. P/NP or letter grading.

122. Italian Theater. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of works for stage from Renaissance to present, including examples of opera and questions pertaining to acting, staging, and performance. May include texts by Machiavelli, Aretino, Alfieri, Gozzi, Goldoni, Verdi, Puccini, d'Annunzio, Amelia Rosselli, Dacia Maraini, Dario Fo, and Franca Rame. P/NP or letter grading.

123. Modern Italian Cultural Studies. (4) Seminar, three hours. Enforced requisite: course 100. Taught in Italian. Reading, research, and writing on various cultural aspects of modern and contemporary Italy. Examination of contemporary Italian food culture, fashion and design, and drama in 19th-century Italy, and gastronomic documents, food traditions, and literary and visual works. Emphasis on late Middle Ages, Renaissance, and Risorgimento, or modern and contemporary movements such as Cucina Futurista and slow food. Examination of relation of Italian traditions of food and eating with health, body, gender, community, politics, biodiversity, and environment. P/NP or letter grading.

124. Food and Literature in Italy. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian language at advanced level through reading of librettos. Six masterworks of Italian opera tradition — Il Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata — to learn about operas, their characters, plots, settings, and themes. Exploration of various historical, political, and cultural issues raised in each opera. P/NP or letter grading.

125. Italian through Opera. (4) Lecture, three hours. Enforced requisite: course 6. Taught in Italian. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian language at advanced level through reading of librettos. Six masterworks of Italian opera tradition — Il Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata — to learn about operas, their characters, plots, settings, and themes. Exploration of various historical, political, and cultural issues raised in each opera. P/NP or letter grading.


140. Italian Novella from Boccaccio to Basile in Translation. (4) Lecture, three hours. Analysis of development of Italian novella in its structure, historical context, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

150. Modern Fiction in Translation. (4) Lecture, three hours. Select literary works thought traced in writers of international fame, with focus on concerns and styles of several prose works such as Umberto Eco's The Name of the Rose, Pasolini's The Regazzi, Pirandello's The Late Mattia Pascal, and Calvino's The Cosmicomics. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) (Same as Gender Studies M158.) Lecture, three hours; discussion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths of Madonna and Latin lover, condition of women in Italian society through history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.

180. History of Italian Language. (4) Lecture. Three hours. Enforced requisite: course 100. Taught in Italian. Main forces that have shaped literary and standard Italian and specific ways in which language has evolved. Tracing of its changing relations with other European languages and survey of effects wrought by historical events, changes in taste, and altered social forms. P/NP or letter grading.

191. Variety Topics Research Seminars: Italian Studies. (4) Seminar, three hours. Research seminar with focus on themes and issues outside uniquely Italian literature topics covered in regular departmental undergraduate courses. Reading, discussion, and development of culminating project. May be repeated once for credit. P/NP or letter grading.

195. Community or Corporate Internships in Italian. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Honors Research in Italian. (4) Tutorial, one hour. Limited to juniors/seniors. Development and completion of significant research project under direct supervision of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

199A. Directed Research in Italian. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199B. Directed Capstone Research in Italian and Italian and Special Fields. (4) Tutorial, to be arranged. Requisites: courses 100, 103A, or 103B, and at least three required courses for one field. Limited to senior Italian and Italian and Special Fields majors. Supervised individual research under guidance of faculty mentor. Capstone paper in which interdisciplinary paper (20 to 25 pages) is to be written in either Italian or English that requires students to synthesize their knowledge of Italian in a particular field of study. Individual contract required. Letter grading.

Graduate Courses


205A. Brief History of Literary Criticism. Presentation, discussion, and application of basic currents of criticism from stylistics to structuralism. 205B. Discussion of Modern Critical Approaches. Presentation, discussion, and application of contemporary approaches from structuralism to deconstruction, new historicism, and feminist criticism.
Labor and Workplace Studies

Interdisciplinary Minor
College of Letters and Science

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Frank T. Higbie, Ph.D. (History)
Daniel J.B. Mitchell, Ph.D. (Management)
Janice L. Reiff, Ph.D. (History, Statistics)
Mark Q. Sawyer, Ph.D. (Political Science)
Katherine Stone, J.D. (Law, Sociology)
Roger Waldinger, Ph.D. (Sociology)
Noah D. Zatz, M.A. (Law)

Scope and Objectives

The Labor and Workplace Studies minor offers an opportunity to learn about the workplace and the social, political, and economic forces that influence it. The program emphasizes the institutions of the labor market, public policy, employment relations, unions, and working-class movements. It also explores issues of race, class, and gender in the workplace.

The interdisciplinary approach gives students exposure to disciplines in addition to their own majors; students should plan to take courses from multiple departments, as disciplinary breadth is encouraged.

The program is intended for students who wish to gain an in-depth understanding of the broad array of issues related to labor and the workplace. Students are encouraged to plan, with the faculty adviser and minor coordinator, either a coherent integration of courses according to a thematic or subtopical investigation or, alternatively, a comprehensive survey of the main issues involved in the study of labor and the workplace.

Undergraduate Study

Labor and Workplace Studies Minor

The Labor and Workplace Studies minor augments study in a traditional field. Students are required to complete both a departmental major and this minor. The faculty adviser certifies completion of the program.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better), have completed 45 units, and file a petition and meet with the faculty adviser and minor coordinator at the Center for Labor Research and Education, 1103E Ueberroth Building, (213) 247-2540, Lsminor@irle.ucla.edu. Students are encouraged to meet early with the faculty adviser and minor coordinator to declare the minor and design a coherent program of coursework.

Required Courses (28 units minimum): Seven courses, with no more than two lower division courses (8 units), selected from Afro-American Studies M173, Asian American Studies 113, M116, Chicana and Chicano Studies M125, M127, M128, 129, Economics 150, 151, Gender Studies M137E, M163, History 141B, 146A, 146B, any labor and workplace studies course, Management 180, Political Science 116A, 142C, Psychology M137E, Public Policy 141, C144, 145, Sociology 157, M163, 171, 173. Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor and workplace studies content.

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

No more than 8 units may be applied toward both this minor and a major or minor in another department or program.

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

Labor and Workplace Studies

Lower Division Courses

M1A-M18 M1CW. Work, Labor, and Social Justice in U.S. (6-6) (Same as GE Clusters M24A-M24B-M24CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Exploration of ways in which work has been transformed over last century, impact of this transformation on working people, and role of labor movement as force for social justice. M1CW. Special Topics. Seminar, three hours. Enforced requisite: course M1B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

Upper Division Courses

M114C. African American Political Thought. (4) (Same as Afro-American Studies M114C and Political Science M180A.) Lecture, three or four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M116. Asian American Social Movements. (4) (Same as Asian American Studies M116.) Lecture, three hours. Discussion for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement character, political and social vision, and social and political relevance to current issues. How movement participation links struggle for change with own personal transformation and growth. P/NP or letter grading.

M117. Negotiation. (4) (Same as Communication Studies M117.) Lecture, four hours. Examination of processes and techniques that underlie successful negotiation. Experiential course in which students learn to negotiate, focusing on identifying one’s own and others’ communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

M119. Asian American and Pacific Islander Labor Issues. (4) (Same as Asian American Studies M119.) Lecture, four hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities, with emphasis on key role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P/NP or letter grading.

M121. Issues in Latin America Poverty. (4) (Same as Chicana and Chicano Studies M121 and Urban Planning M140.) Lecture, four hours. Examination of nature and extent of urban and rural poverty confronting Latin American populations in the United States. Special emphasis on anti-poverty policies of government and nonprofit organizations and social planning and economic development strategies. Attention also to literature on underclass. Letter grading.


M125. U.S./Mexico Relations. (4) (Same as Chicana and Chicano Studies M125.) Lecture, four hours. Examination of complex dynamics in relationship between Mexico and the United States, using political economy approach to study of asymmetrical integration between advanced industrial economies and developing countries. P/NP or letter grading.

M127. Farmworker Movements, Social Justice, and AFL-CIO. (4) (Same as Chicana and Chicano Studies M127.) Lecture, four hours. Designed for juniors/seniors. Historical and social context of farmworker organizing, including its multiracial origins and its influence on fight for equality of working women. Specific focus on organizing of United Farm Workers and Farm Laborers Organizing Committee, and their relationship to AFL-CIO, other unions, and their influence on Chicano Movement. Letter grading.


M144. Women’s Movement in Latin America. (4) (Same as Chicana and Chicano Studies M1114 and Gender Studies M144.) Lecture, four hours. Course on women’s movements and feminism in Latin Ameri-
ca and Caribbean to examine diverse social movements and locations from which women have launched political struggles. Discussion of forms of feminism and women’s consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new forms that are concerned with race, sexuality, feminism, and human rights. Through comparative study of women’s movements in diversity of political contexts and national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women’s resistance, as well as major debates in field of study. P/N or letter grading.

M149. Media, Gender, Class, and Sexuality. (5) (Same as Communication Studies M149 and Gender Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Global Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture induces people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and often misrepresented in media and employment, practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, guest lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

160. Research Group or Internship Seminars: Labor and Workplace Studies. (4) Seminar, three hours. Enforced corequisite: course 150A. Designed for undergraduate students who are part of Labor Summer Research Internship program. Discussion of qualitative applied research methods used by union researchers and scholars engaged in labor relations and workplace studies. Through combination of lectures, key readings, and active participation in hands-on research internship with local unions and organizations, development of understanding of critical debates regarding role of research and socioeconomic contexts that impact low-wage workers and their families. Offered in summer only. Letter grading.

M156. Sociology of Race and Labor. (4) (Same as Afro-American Studies M156 and Sociology M156.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Exploration of relationship between race/ethnicity and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which workers and unions have excluded workers from jobs and unions, as well as circumstances under which workers and unions have organized people of color into unions in efforts to improve their wages and working conditions. Impacts globalization on these dynamics. P/N or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166A and Chicano and Chicano Studies M166A.) Seminar, three hours. New rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor, civil rights, and feminist movements. Discussion of labor movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and judicial issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights, write poetry and spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/N or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166B and Chicano and Chicano Studies M166B.) Seminar, two hours. Requisite: course M166A. Expansion of research conducted by students in course M166A involving oral histories, research on immigration/labor/higher education, and evaluation of legal and political factors impacting undocumented students. Letter grading.


M170. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM170.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative interventions. P/N or letter grading.

M172. Free Speech in Workplace. (4) (Same as Communication Studies M172.) Lecture, three hours. Focus on concept of freedom of expression in workplace and how First Amendment, case law, and federal and state statutes affect one’s ability to speak at work. Conflict between discrimination law and ability to speak freely at work as well as meaning and limits of academic freedom. P/N or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as Afro-American Studies M173 and Chicana and Chicano Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/N or letter grading.

M175. Agitational Communication. (4) (Same as Communication Studies M175.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitation; agitation as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and technique and content of their communications. Letter grading.

M176. Visual Communication and Social Advocacy. (4) (Same as Communication Studies M176.) Lecture, four hours. Visual communication reaches diverse audiences in communicating major social and political topics. Cartoons, posters, murals, and documentary photography have had powerful world impact. Survey of all four genres of visual communications as features of modern mass media. Letter grading.

M180. Southern California Regional Economy. (4) (Same as Urban Studies CM180.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Letter grading.

188. Special Courses in Labor and Workplace Studies. (Seminar, 4 hours. Program-sponsored experimental or temporary courses, immigrant rights movements, such as those taught by visiting faculty members. May be repeated for credit. P/N or letter grading.

194. Research Group Seminars: Labor and Workplace Studies. (Seminar, 80 minutes. Designed for undergraduates who are part of research group. Discussion of research methods and current literature in field of labor studies or of research of faculty members and/or students. May be repeated for credit. P/N or letter grading.

195A. Community or Corporate Internships in Labor and Workplace Studies. (4) (Formerly numbered 195B.) Seminar, one hour; fieldwork, 15 hours. Enforced corequisite: course 160. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/N or letter grading.

195B. Community or Corporate Internships in Labor and Workplace Studies. (2 to 5) Tutorial, to be arranged; internship, up to 15 hours. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. May be repeated for credit. Individual contract required. P/N or letter grading.
the humanities, social sciences, fine arts, and professional fields provide students a unique opportunity to focus on Latin America, a region of growing importance.

The Latin American Studies Program offers the Master of Arts degree. Students pursue specialized coursework and interests, culminating in an interdisciplinary research study. Cooperative degree programs with the UCLA Schools of Education and Information Studies, Management, Public Health, and Public Affairs provide the opportunity to combine the M.A. in Latin American Studies with a master's degree in a professional field.

Information on the undergraduate program in this discipline, which offers a major and a minor in Latin American Studies, can be found in the International and Area Studies section earlier in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa. 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 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 Studies 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 co-operative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.


M262. HIV/AIDS and Culture in Latin America. (4) (Same as Community Health Sciences M260.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, including epidemiology, morbidity concerns and community interventions, medical anthropological study of experience of that impacted, and grass-roots responses, as well as political/ecomonic context addressing poverty and structural violence. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M264 and Community Health Sciences M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases. Examination of 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.

M266A-M266B. Seminars: Recent Latin American History. (4) (Same as History M266A-M266B.) Seminar, three hours. Course M266A is requisite to M266B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M266A) and letter (M266B) grading.

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

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Ordinarily taken in Progress (M268A) and letter (M268B) grading.

598. Research for 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.

599. Research for 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.

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Kenneth N. Klee, J.D.
Russell Korobkin, J.D.
Maximo Langer, LL.B., S.J.D.
Douglas G. Lichtman, J.D.
Christine A. Littleton, J.D.
Gerald F. Lopez, J.D.

Lynn M. LoPucki, J.D., LL.M. (Security Pacific Bank Professor)

Timothy Malloy, J.D.

Jon D. Michaels, M.A., J.D., Acting
Jennifer L. Mnkokin, J.D., Ph.D.
Rachel F. Moran, J.D. (Pete Kameron Professor of Law)
Hiroshi Motomura, J.D. (Susan Westerberg Prager Endowed Professor of Law)

Stephen R. Munzer, J.D.
Neil W. Netanel, J.D., J.S.D. (Pete Kameron Endowed Professor of Law)

Mary D. Nichols, J.D., In Residence

Jason S. Oht, J.D., Acting

Frances E. Olsen, J.D., S.J.D.
Gary A. Orfield, M.A., Ph.D.
Edward A. Parson, M.Sc., Ph.D.
Kai Raustiala, Ph.D., J.D.
Angela R. Riley, J.D.
Richard H. Sander, M.A., J.D., Ph.D.
Myra K. Saunders, M.L.S., J.D., In Residence
Joanna C. Schwartz, J.D., Acting
Seana Shifriss, D.Phil., J.D. (Pete Kameron Professor of Law and Social Justice)

Clyde S. Spillenger, J.D., M.A., M.Phil.

Kirk J. Stark, J.D.

Richard H. Steinberg, J.D., Ph.D.

Katherine Stone, J.D. (Arjay and Frances Fearing Miller Professor of Law)

Alexander Streimelizer, B.Sc., J.D., Ph.D., Acting

Jonathan D. Varat, J.D.

Eugene Volokh, J.D. (Gary T. Schwartz Endowed Professor of Law)

Adam D. Winkler, M.A., J.D.

Stephen C. Yezell, M.A., J.D. (David G. and Dallas P. Price Professor of Law)
Jonathan M. Zasloff, M.A., M.Phil., J.D., Ph.D.
Noah D. Zatz, M.A., J.D.

Eric M. Zolt, M.B.A., J.D. (Michael H. Schliss Endowed Professor of Law)
The school offers a three-year curriculum leading to the J.D. degree and two advanced degrees — Master of Laws (LL.M.) and Doctor of Juridical Science (S.J.D.).

**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.


The undergraduate courses offered by the School of Law are designed for undergraduate students only. For information about the legal curriculum of the School of Law, see http://www.law.ucla.edu.

**Law, Undergraduate Upper Division Courses**

156. American Political Thought Seminar. (3) Seminar, nine hours. Examination of American political thought from founding to writings of Abraham Lincoln. Readings include Locke’s Second Treatise of Government, Declaration of Independence, Federalist numbers 10 and 51, and numerous writings and speeches of Lincoln, including extensive portions of Lincoln-Douglas debates. Emphasis on class discussion. Letter grading.

161. Consumer Bankruptcy Policy Seminar. (3) Seminar, 13 hours. Examination of consumer bankruptcy policy with one architect of 1978 Bankruptcy Code. Discussion of debt payment in ancient Babylon where spouses and siblings could be sold into slavery for nonpayment of relative’s debt. Examination of bankruptcy in U.S. history and analysis of heart of consumer bankruptcy policy, such as when debtor should be released from debts, what property debtors should keep, and how debtors can put together repayment plans. P/NP or letter grading.

163A. International Human Rights Colloquium. (3) (Formerly numbered 163.) Lecture, four hours. Examination of human rights law. Consideration of legal, political, sociological, and economic perspectives. Weekly presentations on topics by 11 leading human rights scholars from U.S. and abroad. Two-page critique of each paper presented by guest lecturers required. P/NP or letter grading.

163B. International Human Rights Colloquium. (1) Lecture, one hour. Continuation of course 163A. P/NP or letter grading.

170. Race and Racism in California Legal History, 1846 to the Present. (4) Seminar, 14 hours. Limited to freshmen/sophomores. Exploration of California legal history, with focus on issues of race and racism, beginning with mid-19th-century transition from Mexican Alta California to U.S. territory and statehood. Topics include state measures affecting California Indians in the 19th century, African Americans in California’s 19th-century history, measures used to curtail Chinese immigration laws designed to prevent racial intermixing, Alien Land Laws aimed at Japanese residents, and history of Japanese citizens after Pearl Harbor, California’s response to U.S. immigrants from dust bowl during great depression, post-World War II through 1980s measures aimed at equal access to things like home ownership, employment, and rental housing; and uses of initiative in modern era. P/NP or letter grading.

173. Topics in American Constitutional History. (4) Lecture, three hours. Introduction to major themes, events, and cases in American constitutional history. U.S. Supreme Court decisions and other sources of constitutional law including popular movements and expressions of constitutional principle from actors in other branches of federal government and in states. Emphasis on historical background and ideological context for particular constitutional controversies at various points in American history, with more formal analysis of particular decisions and competing methods of constitutional interpretation considered. Topics include origins of judicial review, debates over meaning of federalism in early republic, slavery and constitution, Reconstruction Amendments, laissez-faire constitutionalism, citizenship and empire, origins of civil liberties, New Deal constitutionalism, and prehistory of Brown versus Board of Education. P/NP or letter grading.

175. Seminar: Individual Rights Protected by U.S. Constitution. (3) Seminar, two hours. Limited to juniors/seniors. Broad introduction to and examination of individual rights protected under Bill of Rights and 14th Amendment to U.S. Constitution, including freedom of speech and press, religious freedom, right to privacy (including procreative rights) and due process of law, constitutional protection against discrimination based on race and gender, and basic criminal procedure protections. Emphasis on principal Supreme Court cases establishing scope of those rights and their limits. Letter grading.

180. Special Topics in Law. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

184. Introduction to Legal Education. (4) Lecture, four hours. Preliminary introduction to legal pedagogy and overview of American legal system. Analysis of appellate and U.S. Supreme Court cases and legislative materials to develop foundational law school skills and become familiar with principles of both scholarly and practice-oriented legal analysis. Topics include introduction to case analysis, reading cases, exploring precedent and stare decisis, separation of powers, and statutory interpretation. P/NP or letter grading.

185. Corporate Mock Trial. (4) Lecture, four hours. Introduction to basic principles of business law such as how law applies to various business entities, duties and liabilities of corporate officers and directors, and shareholder derivative suits. American legal system and how litigation progresses from filing of complaints through trial. Students participate in mock trial at end of course. P/NP or letter grading.

186. Law and Order. (2) Lecture, two hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code in order to learn law. Exploration of trial process and introductory training in trial advocacy, including construction of arguments, examination of witnesses, and presentation of evidence in court. Opportunity to build on skills students learn throughout course by participating in one mock trial. P/NP or letter grading.

187A. Legal History Colloquium. (3) Seminar, two hours. Corequisite: course 193. Reading of scholarly papers prepared by school faculty members and other scholars in fields of legal history, economics, and political science. Preparation of critiques and discussion of issues in seminar setting with author of papers. P/NP or letter grading.

187B. Politics and International Law Colloquium. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternative theoretical approaches to law (critical realism, institutionalism, and constructivism) to understand relationship between politics and international law. Weekly presentations on topic by 10 leading law and political science scholars from the U.S. and abroad. Reading
of scholarly papers, preparation of critiques, and discussion of issues in seminar setting with authors of papers. P/NP or letter grading.

191. Variable Topics Research Seminars: Law — California Legal History. (4) Seminar, two hours. Requisite: course 170. Research project, selected in consultation with faculty member and using original and secondary materials, to be conducted, followed by major presentation of student work to class and writing of major research paper. Letter grading.

193. Journal Club Seminars: Law. (1) Seminar, one hour; discussion, two hours. Corequisite: course 187A. Adjunct course limited to undergraduate students taking law colloquium. Intensive review and follow-up of scholarly papers presented in colloquium series. Reading of legal cases and supplemental material to provide legal framework for each scholarly paper presented in colloquium. Supervised by faculty member in charge of colloquium series. May be repeated for credit. P/NP grading.

199. Directed Research in Law. (1 to 6) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating scholarly paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES

Interdisciplinary Minor
College of Letters and Science

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James A. Schultz, Ph.D., Chair
Faculty Committee
Stuart Biegel, Ph.D. (Education)
Mayelé S. Blackwell, Ph.D. (Chicana and Chicano Studies)
Sue-Ellen Case, Ph.D. (Germanic Languages, Theater)
Susan D. Cochrane, M.S., Ph.D. (Epidemiology, Statistics)
Alicia Gaspar de Alba, Ph.D. (Chicana and Chicano Studies, English, Gender Studies)
Sandra Harding, Ph.D. (Education, Gender Studies)
Gil Z. Hochberg, Ph.D. (Comparative Literature)
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Christopher J. Looey, Ph.D. (English)
Kathleen A. Mchugh, Ph.D. (English, Film, Television, and Digital Media)
Uri McMillan, Ph.D. (English)
Mignon R. Moore, Ph.D. (Sociology)
Mitchell B. Morris, Ph.D. (Musicology)
Catherine S. Orie, Ph.D. (English Art)
James A. Schultz, Ph.D. (Germanic Languages) 
Robert Bradley Sears, J.D. (Law)
Jennifer A. Sharpe, Ph.D. (Comparative Literature, English, Gender Studies)

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 Achilles 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 accomplishements, 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 20 years, has developed into an academically disciplined field 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 and gender 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 (28 units):
Lesbian, Gay, Bisexual, and Transgender Studies M114, 180SL, and five additional courses to be selected from at least three of the following four areas:

Health, Genetics, and Science: Lesbian, Gay, Bisexual, and Transgender Studies M174A, 184, Psychology 129E.


Students may petition to apply a non-listed course on the minor 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 the program coordinator who can help them plan their course of study.

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

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

Upper Division Courses

M101A. Premodern Queer Literatures and Cultures. (5) (Not same as course M101A prior to Fall Quarter 2014.) (Same as English M101A and Gender Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature from beginning to circa 1850 in works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M101B. Queer Literatures and Cultures, 1850 to 1970. (5) (Formerly numbered M101A.) (Same as English M101B and Gender Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Lillian Hellman, Tennessee Williams, Henry Blake Fuller, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M101C. Queer Literatures and Cultures after 1970. (5) (Formerly numbered M101B.) (Same as English M101C and Gender Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of specifically produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movements in U.S. Writings and films by such authors as Andrew Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (5) (Formerly numbered M101C.) (Same as English M101D and Gender Studies M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in queer literatures and cultures. Topics focus on particular problem or issue in terms of its relationship to queer cultures and works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M107B. Studies in Gender and Sexuality. (5) (Same as English M107B and Gender Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional vectors of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (5) (Same as Gender Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, 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 Gender Studies M115.) Lecture/discussion four hours. Required: course M114 or Gender Studies 10. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual life. Topics may include cultural representations, historical and political change, life and health experiences, and queer or transgender theories; multithematic and cross-cultural emphases. May be repeated for credit. Letter grading.


M118. Queering American History. (4) (Same as Gender Studies M118.) Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, and transgender studies course. History of sexual and gender minorities. Lecture topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/ NP or letter grading.

M125. Feminist and Queer Theory. (5) (Same as English M126 and Gender Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course from English 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and debates in study of gender, sexuality, and kinship, with focus on their interrelated significance for making of culture. Reading topics to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality on specific historical cultures. May be repeated for credit with topic or instructor change. P/ NP or letter grading.


M134. Cultural Construction of Gender and Sexuality: Homosexualities. (4) (Same as Anthropology M134 and Honors Columbian 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. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) (Same as Music History M137.) Lecture, four hours; discussion, one hour. Enforced requisite: course M130 or equivalent. Examination of music in 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 Gender Studies M147A.) Lecture, two hours; discussion, one hour. Required: course M114 or Gender Studies 10 or Psychology 10. Designed for juniors/seniors. Review of research and theory in psychology and gender studies to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociohistorical context. P/ NP or letter grading.

M157. Contested Sexualities. (4) (Same as Gender Studies M157.) Lecture, three hours; discussion, 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 racial diversity; and analysis of current issues affecting contested sexualities. Letter grading.

180SL. Lesbian, Gay, Bisexual, and Transgender Institutions and Organizations. (4) Lecture, three hours; fieldwork, five hours. Preparation: one prior lesbian, gay, bisexual, and transgender studies course. Service-learning course that offers opportunities for students to work in lesbian, gay, bisexual and transgender-related community organizations, on projects on political and theoretical issues involved in such work and such organizations, and allows students to draw ideas from various courses they have already taken and to test them in settings outside UCLA. P/ NP or letter grading.

181. Variable Topics in Queer Diversities. (4) Lecture, two hours; discussion, two hours. Study of topics about queer diversities from lesbian, gay, bisexual, and transgender studies perspective. P/ NP or letter grading.

182. Variable Topics in Education, Law, and Public Policy. (4) Lecture, four hours; discussion, two hours. Study of law, education, and public policy topics from lesbian, gay, bisexual, and transgender studies perspective. P/ NP or letter grading.

183. Variable Topics in Queer Subjectivities/Theories/History. (4) Lecture, two hours; discussion, two hours. Study of topics about queer subjectivities/theories/history from lesbian, gay, bisexual, and transgender studies perspective. P/ NP or letter grading.

184. Variable Topics in Science, Health, and Genetics. (4) Lecture, two hours; discussion, two hours. Study of science, health, and genetics topics from lesbian, gay, bisexual, and transgender studies perspective. P/ NP or letter grading.

191D. Topics in Queer Literatures and Cultures. (5) (Same as English M191D and Gender Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for course, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

191E. Topics in Gender and Sexuality. (5) (Same as English M191E and Gender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for course, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

194. Research Group or Internship Seminars: Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Preparation: completion of four courses toward minor. Enforced requisite: course 194. Designed for seniors who are doing internship in lesbian, gay, bisexual, or transgender organization. Discussion of organization theoretical and political issues in context of internship and reaction to those issues to ideas encountered in minor courses already taken. May be repeated for credit. P/ NP grading.

195. Community or Corporate Internships in Lesbian, Gay, Bisexual, and Transgender Studies. (4) Tutorial, one hour. Preparation: completion of four courses toward minor. Enforced requisite: course 194. Corequisite: course 194. Limited to seniors. Internship in supervised setting in lesbian, gay, bisexual, or transgender community organization. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/ NP or letter grading.

197. Individual Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Required: course M114. Limited to juniors/seniors. Dated program of original and focused study or research on specific topic within lesbian, gay, bisexual, and transgender studies, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/ NP or letter grading.
and biodiversity, cellular and organismal biology, as well as introductory courses in evolution that is required for more advanced courses in this diversity, all of these majors require a comprehensive 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.lscorescience.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 eight majors, they have the flexibility to switch to another life sciences major at any time during their progression through the core curriculum. Note: The Marine Biology and Psychology majors may require some courses in addition to the life sciences core curriculum as part of the preparation. Consult the course requirements for both majors.

Undergraduate Study

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4, 23L; 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, and 4BL, or 6A, 6B, and 6C.

Each core curriculum course must be passed with a grade of C— or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or F in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology 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.

Refer to the UCLA Transfer Admission Guide at http://uclaadmisions.ucla.edu/prospect/admiss_tr.htm for up-to-date information regarding transfer selection for admission.

Undergraduate Research Consortium in Functional Genomics

The Undergraduate Research Consortium in Functional Genomics (URCFG) offers a sequence of laboratory-intensive courses designed for undergraduate students committed to pursuing research. The innovative partnership between UCLA and the Howard Hughes Medical Institute (HHMI) was formed through a major award to Professor Utpal Banerjee. The HHMI Professors Program seeks to engage leading scientists in transmitting the excitement and values of scientific research to undergraduate education. The goal of the URCFG is to emphasize the importance for academia and industry of research in the fields of medicine and biotechnology.

Sponsored by the Life Sciences Core, the URCFG provides undergraduate students from any UCLA major with the opportunity to learn biological research techniques early in their educational careers and within a structured institutional environment. Students devote between one and four terms to the study of biological research in genetics, bioinformatics, and functional genomics. The training emphasizes research concepts in basic science such as the model organism and in advanced research techniques such as electron microscopy.

Students participate in one structured lower division course — 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 research in genetics, genomics, and bioinformatics. 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 10H alone.

Each course must be taken for a letter grade. Under special circumstances, one course may be waived for students who have prior research experience in fields covered by the courses. Students who complete the required courses receive a certificate of merit indicating their completion of the consortium.

To participate, students must be accepted into the Undergraduate Research Consortium in Functional Genomics. Interested students should contact the URCFG coordinator in the Molecular, Cell, and Developmental Biology Student Affairs Office, 128A Hershey Hall, (310) 825-7109, for information regarding admission and an application. Applications are due no later than Friday of the fourth week of the term prior to the term in which students plan to enroll in course 10H. See http://www.lscorescience.ucla.edu/research/index.html.

Life Sciences

Lower Division Courses

1. Evolution, Ecology, and Biodiversity. (5) Lecture, three hours; laboratory, two hours; one field trip. Introduction to principles and mechanisms of evolution by natural selection; population, behavioral, and community ecology; and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. P/NP or letter grading.

2. Cells, Tissues, and Organs. (4) Lecture, three hours; discussion, 75 minutes. Enforced requisite: Chemistry 14A or 20A. Introduction to basic principles of cell structure, organization of cells into tissues and organs, and principles of organ systems. Letter grading.

3. Introduction to Molecular Biology. (4) Lecture, three hours; discussion, 75 minutes. Enforced requisites: course 2, and Chemistry 14C or 30A. Corequisites: course 23L (students must take 23L concurrently with course 3 if they do not plan to take course 4). Introduction to basic principles of biochemistry and molecular biology. Letter grading.

3A. Introduction to Molecular Biology Laboratory. (1) Laboratory, three hours; discussion, one hour. Enforced corequisite: course 3. Introductory wet-laboratory designed to prepare students for upper division laboratory courses for all life sciences departments. Use of wet-laboratory/bioinformatics methods and tools applicable in variety of biological fields, molecular biology, microbiology, genomic biology, bioinformatics, and psychology. Students conduct inquiry-based laboratory experiments and learn basic wet-laboratory skills to guide them to refine their skills to write their own laboratory reports and to work in groups as team. Letter grading.

3H. Introduction to Molecular Biology (Honors). (5) Lecture, two and one-half hours; discussion, 90 minutes; movie section, two and one-half hours. Enforced requisites: course 2, and Chemistry 14C or 30A. Honors course parallel to course 3, but at a more advanced level. Letter grading.


10H. Research Training in Genes, Genetics, and Genomics. (6) Lecture, 90 minutes; laboratory, six hours; computer laboratory, 90 minutes. Limited to 30 students. Basic training in biological research, including techniques in genetics, model organism, bioinformatics, functional genomics, electron microscopy. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

15. Life: Concepts and Issues. (5) Lecture, three hours; discussion, two hours. Introduction to important concepts and issues in the field for non-life sciences majors. Topics include chemistry of life, genetics, physiology, evolution, and ecology — all explored in lecture and debates, with a writing component. P/ NP or letter grading.

23L. Introduction to Laboratory and Scientific Methodology. (2) Laboratory, three hours; discussion, one hour. Enforced requisite: course 2. Must be taken concurrently with either course 3 or 4. Introduction to laboratory sciences; laboratory designed for undergraduates. Opportunity to conduct wet-laboratory cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, molecular biology, genotyping, and bioinformatics. Letter grading.

97. Variable Topics in Life Sciences. (1 to 4) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

98X. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in life sciences. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

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) Seminar, one hour. Preparation: completion of three mathematics and/or science courses at level required of science majors. Observation, participation, and assisting in science classes at elementary, middle, and secondary schools. May be repeated for credit. P/NP grading.

192A. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours. Requisite: course 2 or 3. Training and supervised practicum in laboratory setting for advanced undergraduate students in courses related to life sciences. Students work on oral presentation skills and assist in preparation and presentation of materials and development of programs under guidance of faculty members. Letter grading.

192C. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours. Requisite: course 4. Limited to sophomores/juniors/seniors. Training and supervised practicum in development of problem-solving skills and intuition in genetics in collaborative learning environment for advanced undergraduate students in courses related to life sciences. Students work on oral presentation skills and assist in preparation and presentation of materials and development of programs under guidance of faculty members. May be repeated once for credit. Letter grading.

199. Directed Research or Senior Project in Life Sciences. (2) Tutorial, two hours. Enforced requisite: course 3. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper/project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course

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

Linguistics

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Associate Professors

Megha Sundara, Ph.D.
Kie Ross Zunaw, Ph.D.

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Robert T. Daland, Ph.D.
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Scope and Objectives

The goal of linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. It is important for prospective students to understand that studying linguistics is not a matter of learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology (with its roots in phonetics), morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social sciences areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject. Hence, the courses provide a variety of approaches that reflect the diversity of the field.

The Linguistics Department has consistently been ranked among the very best linguistics departments in the country. It offers programs leading to the Bachelor of Arts, Master of Arts, and Ph.D. degrees.

Undergraduate Study

The majors described below are of two types: (1) a major that concentrates entirely on general linguistics and (2) several majors that combine the basic courses of the general program with a language concentration or other related fields. The combined majors in conjunction with instructional certification programs are especially appropriate for students who have non-university teaching careers as goals.

A 2.0 grade-point average in linguistics courses is required for all Linguistics Department majors.

Linguistics B.A.

The Linguistics major 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 for one third term of work in one language).

Students are required to complete at least the equivalent of the third term in a language other than those in the Romance, Slavic, or Germanic families. This requirement may be satisfied either as part of or in addition to the language requirement described in the preceding paragraph.

Transfer Students

Transfer applicants to the Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, two courses from symbolic logic, introductory psychology or psychological statistics, or cultural anthropology, and two years of one foreign language and one year of a second foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families).

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper division courses as follows: Linguistics 103, 110, 120A, 120B, 120C or 132, and two courses from 120C, 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 197, 198A, 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 113A, 113B, 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 adviser.

Linguistics 198A and 198B, or 199, are recommended for students planning to pursue graduate work in linguistics, since they provide an opportunity to engage in independent research and to write a paper that can be submitted to graduate admissions committees. To enroll in the courses, students must consult with the department's senior essay and honors counselor.

Linguistics and Anthropology 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

Transfer applicants to the Linguistics and Anthropology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course and two years of one foreign language and one year of a second foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families). One cultural and communication course is strongly recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

Linguistics and 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

Transfer applicants to the Linguistics and Asian Languages and Cultures major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Chinese, Japanese, or Korean, one introduction to linguistics course, one cultural anthropology course, one Chinese, Japanese, or Korean civilization course, and one year of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

Linguistics and Computer Science B.A.

Preparation for the Major

Required: Linguistics 20, Computer Science 31, 32, 33, 35L, Mathematics 31A, 31B, 61 or 180, Philosophy 31, completion of the sixth term in one foreign language or the third term in each of two foreign languages.

Transfer Students

Transfer applicants to the Linguistics and Computer Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, two calculus courses, one symbolic logic course, four computer programming courses, and two years of one foreign language or one year in each of two foreign languages. One discrete structures course is recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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

Transfer applicants to the Linguistics and English major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one foreign language and one year of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.
Linguistics and Philosophy B.A.

**Preparation for the Major**

*Required:* Linguistics 20, Philosophy 31, and two courses from 1, 6, 7, 21, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

**Transfer Students**

Transfer applicants to the Linguistics and Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, 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. Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper division elective in linguistics, English 113A, 113B (or Applied Linguistics C116), 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Linguistics and French B.A.

**Preparation for the Major**

*Required:* Linguistics 20, French 1, 2, 3, 4, 5, 6, 12, completion of the equivalent of the third term of a second foreign language.

**Transfer Students**

Transfer applicants to the Linguistics and French major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of French, one introduction to linguistics course, one French literature course, and one year of a second foreign language. Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165B or 180, one upper division elective in linguistics; six upper division courses in philosophy, including at least five from Philosophy 124 through 135, 170, 172, 174, 180, 181, 184, of which at least two must be from 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**

Transfer applicants to the Linguistics and Psychology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, and two years of one foreign language and one year of a second foreign language. One introduction to programming course is strongly recommended. Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper division elective in linguistics, English 113A, 113B (or Applied Linguistics C116), 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Linguistics and 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**

Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course. Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B, one upper division elective in linguistics, French 100, 101, 105, 107, and one elective upper division French course beyond the sixth term.

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**

Transfer applicants to the Linguistics and Scandinavian Languages major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Swedish, Norwegian, or Danish, one introduction to linguistics course, and one year of a second foreign language. Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Eleven upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165B or 180, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language. Program in Philosophy 124 through 135, 170, 172, 174, 180, 181, 184, of which at least two must be from 127A, 127B, 172.

Linguistics and Spanish B.A.

**Preparation for the Major**

*Required:* Linguistics 20, Spanish 1, 2, 3, 4, 5, 25 or 27, 42, 44, completion of the equivalent of the third term of a second foreign language.

**Transfer Students**

Transfer applicants to the Linguistics and Spanish major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish, one Spanish composition course, one Spanish civilization course, one Spanish American civilization course, one introduction to linguistics course, and one year of a second foreign language. Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B, one additional upper division course in linguistics, Spanish 100A, 100B, 119, 160, and 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, 124A, 124B, 124C, 124E, 130, 133C, 133E, 133F, 166A, 166B.
and two additional upper division Spanish courses.

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 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization

Students in any of the 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 and 10B and 10C (or Computer Science 31 and 32), Linguistics 180, 185A, Mathematics 61. Students graduate with a bachelor's degree in their major and a specialization in Computing.

Linguistics Minor

The Linguistics minor is designed for students where training in linguistic analysis could be an enhancement to their major programs and to students who are interested in language(s) but do not have time in their undergraduate programs to pursue multiquarter language sequences. In addition, the minor provides students with a way to design "custom" joint degrees with linguistics where the Linguistics Department does not have an existing joint degree program combining linguistics and another field.

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

Required Lower Division Course (5 units): Linguistics 20.

Required Upper Division Courses (27 to 30 units): Six courses, which must include Linguistics 103, 120A, 120B, two elective courses selected from 104 through 185B, and an additional elective linguistics course, which may be upper or lower division.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasasa/index.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Linguistics.

American Sign Language

Lower Division Courses


Indigenous Languages of the Americas

Lower Division Courses


5. World Languages. (5) Lecture, five hours. Discussion of such linguistic concepts as pidgins and creoles, unaffiliated languages, language families and types. Detailed discussion of representative languages with audiovisual illustrations to acquaint students with distinctive features of several key language families. Discussion of such linguistic concepts as pidgins and creoles, unaffiliated languages, language contact, and language endangerment, together with related sociopolitical issues. P/NP or letter grading.

6. Out of Mouths of Babes. (4) Lecture, six hours. How children acquire language, most complex of human cognitive achievements. Look at amazing linguistic abilities of infants and their first perception and production of speech sounds, then investigation of how children learn words and rules for producing and understanding sentences. Language acquisition in special populations such as children acquiring sign languages, bilingual children, and people acquiring language beyond critical period. Focus mainly on English, with consideration of other languages. Offered in summer only. P/NP or letter grading.


Upper Division Courses

119A-119B-119C. Advanced Quechua. (4-4-4) Formerly numbered Quechua 119A-119B-119C.) Lecture, five hours. Enforced requisite: course 119A, which is requisite to 119C. Readings in Quechua. Dialectal and stylistic variation. Discussion mainly in Quechua. P/NP or letter grading.

191. Variable Topics Research Seminars: Indigenous Languages. (2 or 4) Formerly numbered Quechua 191.) Seminar, three hours. Research seminars on selected topics on various indigenous languages. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Course

596. Directed Studies in Quechua. (1 to 8) Formerly numbered Quechua 596.) Tutorial, to be arranged. 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. SIU grading.
Introduction to General Phonetics. (5) Lecture, four hours; discussion, one hour. Enforced requisite: course 20 with grade of B– or better. Phonetics of 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.


105. Morphology. (5) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. In linguistics, morphology is study of word structure. Morphological theory seeks to answer questions such as how should words and their component parts (roots, prefixes, suffixes, affixes) be classified crosslinguistically? how do speakers store, produce, and process complex words (words with affixes, compounds?) how do speakers know how to produce correct word forms even when they have not previously heard them and how do speakers know that particular words are well-formed or ill-formed? is there principled distinction in traditional division between inflection and derivation? how can we best explain variation in forms that are same (e.g., root in keep/kept even though vowels are different?) can we formulate crosslinguistic generalizations about word structure? P/NP or letter grading.

Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 103, 120A. Methods and theories appropriate to the study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

Intonation. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: courses 20, 103, 120A, 120B. Recommended: course 104 or 204A. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

American Indigenous Linguistics. (5) Lecture, four hours; discussion, one hour. Strongly recommended: prerequisite course 20. Survey of genetic, areal, and typological classifications of American indigenous languages; writing systems for American indigenous languages; American indigenous languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.


Syntax I. (5) Lecture, four hours; discussion, one hour. Requisite: course 120A. Study of syntax as the study of the structure of language. Emphasis on the organization of language into sentences and on the analysis and representation of sentence structure. P/NP or letter grading.

Semantics I. (5) (Formerly numbered 125.) Lecture, four hours; discussion, one hour. Requisite: course 120B. Survey of most important theoretical and descriptive claims about nature of meaning. P/NP or letter grading.

Syntactic Typology and Universals. (5) Lecture, four hours; discussion, one hour. Requisite: course 20. Study of essential similarities and differences among languages in grammatical devices they use to signal the following kinds of concepts: relations between nouns and verbs (case and word order), negation, comparison, existence/location/possession, causation, distribution, perception, attribution (adjectives), time and tensed and aspects of (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 one Romance language). Enforced requisite: course 120B. Course C128A is enforced requisite to C128B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with course C128A. P/NP or letter grading.

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 data language 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. P/NP or letter grading.

Language Processing. (5) Lecture, four hours; laboratory, one hour. Requisites: courses 20, 120A, 120B. General issues of language comprehension and production, with emphasis on how theories in linguistics inform processing models. Topics include word and sentence understanding (with emphasis on spoken language), parsing, anaphora and inferencing, speech error models, and sentence production. Computation of syntactic structure during production. P/NP or letter grading.

Neurolinguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 1 and 20, 130. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital language disorders. Concurrently scheduled with course C125. P/NP or letter grading.

Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour. Requisites: courses 120A, 120B, 130. Introduction to study of children learning to acquire and use a second language (L2) acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2 bilingual acquisition. Discussion of neurolinguistics, psycholinguistics, and bilingualism. Concurrently scheduled with course C224, P/NP or letter grading.

Language in Culture. (5) (Same as Anthropology M410.) Lecture, three hours; discussion, one hour. Fieldwork two hours. Requisite: course 20 or Anthropology 33. Study of language as aspect of culture; relation of habitual thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relationship of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as archaeology. P/NP or letter grading.

Introduction to Indo-European Linguistics. (5) (Same as Indo-European Studies M150.) Lecture, two hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, and sociolinguistic contexts; nature of reconstructed Indo-European proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/NP or letter grading.

Field Methods. (5) Lecture, four hours; discussion, one hour. Requisites: courses 103, 120A, 120B. Analysis of language unknown to members of class from data elicited from native speaker of that language. P/NP or letter grading.

Language Documentation. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20 (enforced), and 105 or 120A. Issues in documenting languages, including collection of primary data using linguistic methods, case studies, field notes, data analysis, annotated texts, dictionaries, multimedia presentations, technical articles, audiences for language documents (speakers of target languages, linguists, social scientists, computer linguists, public), presentation and storage of documents (paper publication, online publication, electronic and physical archives), documenting endangered languages, and organizations and initiatives for documenting endangered languages. Presentations focus on case studies. Student projects in assembling primary data and creating annotated texts with commentary. P/NP or letter grading.

Semantics II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120A. To be taken in term following completion of course 120B or as soon as possible thereafter. Further study in phonological theory and analysis: autosegmental theory, syllable structure, metrical theory, interface of phonology and grammar. P/NP or letter grading.

Semantics II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120C. Recommended for students who plan to do graduate work in linguistics. Form of grammars, word formation, formal and substantive universals in syntax, relation between syntax and semantics. P/NP or letter grading.

Language and Society: Introduction to Sociolinguistics. (4) Requisite: course 20. Study of patterned covariation of language and society; social dialects and social styles in languages; problems of multilingual societies.

Linguistic Change in English. (5) Lecture, four hours. Requisites: courses 110, 120A, 120B. Principles of linguistic change as exemplified through detailed study of history of English pronunciation, lexicology, and syntax. P/NP or letter grading.

Japanese Phonology and Morphology. (4) (Same as Japanese CM122.) Lecture, three hours; discussion, one hour. Recommended preparation: two or more years of Japanese. Survey of Japanese phonetics, phonology, and morphology. Letter grading.

M177. Structure of Korean. (4) (Same as Korean CM122.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, typological and autosegmental phonological structure of Korean. Letter grading.


185A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Requisite: course 120B, 180, Program in Computing 10B (or Computer Science 32). Recommended: course 165B or 200B. Survey of recent work on natural language processing, including basic syntactic parsing strategies, with brief glimpses of semantic representation, reasoning, and response generation. P/NP or letter grading.

185B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Requisite: course 185A. Extensions of basic language processing techniques to natural language processing. Recent models of syntactic, semantic, and discourse analysis, with particular attention to their linguistic sophistication and psychological plausibility. P/NP or letter grading.

191A. Variable Topics Research Seminars: Linguistics. (4) Seminar, three hours. Requisite: course 1 or 20. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

192A-192B. Undergraduate Practicum in Linguistics. a. Practicum, one hour (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in linguistics courses. Students assist in preparation of materials and development of innovative programs under guidance of faculty member and teaching assistants. May not be applied toward course requirements for any Linguistics Department major. Individual contract required. Information and contracts may be obtained from Linguistics Department. P/NP or letter grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, four hours. Requisite: course 1 or 20. Limited to juniors/seniors. Individual intensive study with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Linguistics I. (4) Tutorial, to be arranged. Preparation: 3.5 grade-point average. Seminar (course 198A or 198B) or 165B (or 200B). Recommended: completion of both courses 165A and 165B or (200A and 200B) before or during term in which course 198A is taken. Limited to juniors/seniors. Development of honors thesis or comprehensive research project on linguistic topic selected by student under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. In Progress grading (credit to be given only on completion of course 198A).

198B. Honors Research in Linguistics II. (2) Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project in course 198A under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Linguistics. (4) Tutorial, to be arranged. Limited to seniors. Majors. Supervised individual research or investigation of linguistic topic selected by student under guidance of faculty mentor. Culuminating paper required. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Phonological Theory I. (4) Preparation: graduate linguistics student or grade of A in course 120A or equivalent course in phonology. Courses 200A and 201 form two-course survey of current research in phonological theory. Interaction of phonology with morphology and syntax. Letter grading.

200B. Syntactic Theory I. (4) Preparation: graduate linguistics student or grade of A in course 120B or equivalent course in syntax. In-depth introduction to selected topics in theory of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical function-changing rules, head-complement relations.

200C. Semantic Theory I. (4) Lecture, four hours. Requisite: course 180 or 208. Overview of current results and research methods in linguistic semantics. Topics include meaning and semantic universals, predicate argument structures, variable binding and pronounization, formal semantic interpretation, syntax and LF; tense, ellipsis, and focus. Letter grading.

201A. Phonological Theory II. (4) (Formerly numbered 201B.) Lecture, four hours. Requisite: course 200A of 200B. Second course in two-course survey of current research in phonological theory. Topics include phonological assimilation (tone, intonation, phrase structure), feature theory, underspecificity, prosodic morphology, S/U or letter grading.

201B. Syntactic Theory II. (4) (Formerly numbered 202B.) Lecture, four hours. Requisite: course 200B. In-depth introduction to topics in theory of movement processes and topics selected from following areas: WH-movement and related rules, subject-auxiliary order on movement; ECP and related conditions on distribution of empty categories; resumptive pronoun constructions; parametric variation in movement constructions; LF WH-movement; filters; reconstruction; parasitic gaps; barriers theory; control theory; null subject parameter. S/U or letter grading.


203. Phonetic Theory. (4) Requisite: course 120A. Preparation: course 165A or 165B. Functional implications of vocal organs; fundamental principles of acoustics and of acoustic theory of speech production; issues in perception of speech; nature and design of feature systems for phonetic and phonological analysis.

204A. Experimental Phonetics. (4) Lecture, three hours. Requisite: course 103. Use of laboratory equipment to investigate articulatory, acoustic, and perceptual properties of speech production. Include experimental design and statistics; theoretical basis of acoustic structure of speech sounds; computer-based speech processing, analysis, and modeling; perceptual and acoustic evaluation of synthetic speech. S/U or letter grading.

204B. Speech Production. (4) Lecture, three hours; laboratory, one hour. Requisite: course 104 or 204A. Survey topics in speech production, especially as related to linguistic phonetics. Topics include physiology of vocal tract and models of speech production and articulatory/acoustic relations. Emphasis on use of laboratory methods such as aerodynamic transducers, electroglottography, static and electropalatography, electromagnetic articulography, and imaging techniques. S/U or letter grading.

204C. Speech Perception. (2 to 4) Lecture, four hours. Recommended requisite: course 104 (or 204A) or 111 (or 211). Limited to graduate students. Survey of topics in speech perception research. Topics include auditory physiology and psychophysics, categorical perception, speech perception and linguistics, speech perception and word recognition. Emphasis on use of experimental methods such as lexical decision, gating, priming, eye tracking, phoneme monitoring, and sound spotting. Letter grading.


208. Mathematical Structures in Language I. (5) (Formerly numbered C208.) Lecture, four hours; discussion, one hour. Recommended requisite: course 120B. Prior mathematics knowledge not assumed. Mathematical introduction to phonology, syntax, and semantics. Elementary material on logic, sets, functions, relations, and trees. S/U or letter grading.

209A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Survey of recent work on natural language processing, including basic syntactic parsing strategies, with brief glimpses of semantic representation, reasoning, and response generation. S/U or letter grading.

209B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Recommended requisite: course 209A. Extensions of basic language processing techniques to natural language processing. Recent models of syntactic, semantic, and discourse analysis, with particular attention to their linguistic sophistication and psychological plausibility. S/U or letter grading.

209C. Computational Semantics. (4) Lecture, four hours. Preparation: basic knowledge of semantics. Requisite: course 180A or 198A. Study of algorithms to compute and reason with meanings of sentences and texts. Phenomena such as anaphor resolution, presupposition projection, and tracking time, objects, and space to be covered. S/U or letter grading.

210A. Field Methods I. (4) Lecture, four hours. Preparation: grade of B or better in course 103 or in examination on practical phonetics. Requisites: courses 200A, 200B. Analysis of a language unknown to speaker of the language. Term papers to be relatively full descriptive sketches of the language. May be repeated for credit with topic change. S/U or letter grading.

210B. Field Methods II. (4) Lecture, four hours. Requisite: course 210A in preceding term. Because different languages are investigated in different years, credit is granted only once for each completed course. In Progress grading (credit to be given only on completion of course 210A in same year. When there are multiple sections, continuation must be in same section. May be repeated for credit with topic change. S/U or letter grading.
211. Intonation. (4) Lecture, two hours; laboratory, two hours. Required: course 120A or 120B. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

212. Learning Theory. (4) Lecture, four hours. Required: course 180 or 206. Survey of some of most significant results on capabilities of learners, given precise assumptions about their memory, time, and computational abilities; develop precise assumptions about information provided by environment. S/U or letter grading.

213A. Grammatical Development. (4) Requisites: courses 200A, 200B. Recommended: course 130 or 233. Survey of theoretical perspectives and contemporary empirical research in development of syntax and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and issues of learnability.


213C. Linguistic Processing. (4) Lecture, four hours. Required: courses 165B and/or 200B. Recommended: course 213B, 213C. Survey of theoretical perspectives and contemporary empirical research in human processing of language (comprehension and/or production), with emphasis on syntactic processing, ambiguity resolution, effects of memory load, and relationship between grammar and processor. S/U or letter grading.

214. Survey of Current Syntactic Theories. (4) Lecture, four hours. Required: course 201B. Survey of several current syntactic theories, comparing with one another and with theory discussed in course 201B, from point of view of theories’ relative descriptive and explanatory power. S/U or letter grading.

215. Syntactic Typology. (2 or 4) Lecture, four hours. Required: course 200B. Course results in word-order universals; genetic classification of world’s languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, agreement systems, deixis systems, and types of sentence complements. S/U or letter grading.

216. Syntactic Theory III. (4) Lecture, four hours. Required: courses 200A, 200B, 213A, 213B. An introduction to current theories of syntactic autosemantic features, and the interplay among one another. Topics include: word order, agreement, new concepts in syntax, government and binding.

217. Experimental Phonology. (4) Lecture, four hours. Required: course 200A. Survey of experimental work that bears on claims about speakers’ knowledge of tone, perception, production, and effect of these phenomena on phonological theories.

218. Mathematical Structures in Language II. (4) Lecture, four hours. Required: course 180 or 208. In-depth study of generalized quantifier theory; selected topics from formal semantics, partial orders and lattices, formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

219. Phonology. (4) Lecture, four hours. Required: course 201A. Current research and issues in phonological theory. Topics include structure of phonological representations, relations between representations, architecture of grammar, and explanations for phonological typology. S/U or letter grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 165B, 165B or 200B. Analysis and classification of languages spoken in a particular area. Examples: 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) Lecture, four hours. Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Phonological processing of a selected language and its genetic relationships to others of its family. May be repeated for credit with topic change. S/U or letter grading.

C228A-C228B. Romance Syntax: French. (4–5) (Formerly numbered CM228A-CM228B.) Lecture, four hours. Preparation: some knowledge of French (or one Romance language). Enforced requisite: course 120B. Course C228A is enforced requisite to C228B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with course C128A-C128B. S/U or letter grading.


232. Language Processing. (5) Lecture, four hours; laboratory, one hour. Central issues in language comprehension and production, with emphasis on how theoretical language models may be compared with human language models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inferencing, speech error models of sentence production, and computation of syntactic structure during production. S/U or letter grading.


C235. Neurolinguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 1 or 200; and 130. Examination of relationship between brain, language, and linguistic evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital language disorders. Concurrently scheduled with course 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 studies, experimental methods for linguistic data collection, statistical analysis of results. May be repeated for credit. Letter grading.

M238. Analyzing Historical Texts. (4) Same as History M266C.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnolinguistic context of legal and other documents written by native peoples of the Americas. Topics include paleographic technique and text analysis software. May be repeated for credit. S/Ugrading.

C244. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour. Requisites: courses 120A, 120B, 130. Introduction to structure of bilingualism and effects of language breakdown. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

M246C. Topics in Linguistic Anthropology. (4) (Same as Anthropology M241.) Problems in relationships of language, culture, and society. May be repeated for credit.

251A. Topics in Phonetics and Phonology. (4) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. Meets with course 251B. May be repeated for credit. Letter grading.

251B. Topics in Phonetics and Phonology. (2) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. May not be applied toward M.A. or Ph.D. degree requirements. Meets with course 251A. May be repeated for credit. S/U grading.

252A. Topics in Syntax and Semantics. (4) Seminar, four hours. Requisite: course 200B. Course 201B, 201C, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. Meets with course 252B. May be repeated for credit. Letter grading.

252B. Topics in Syntax and Semantics. (2) Seminar, four hours. Requisite: course 200B. Course 206, 207, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. May not be applied toward M.A. or Ph.D. degree requirements. Meets with course 252A. May be repeated for credit. S/U grading.

253A. Topics in Language Variation. (4) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. Meets with course 253B. May be repeated for credit. Letter grading.

253B. Topics in Language Variation. (2) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. May not be applied toward M.A. or Ph.D. degree requirements. Meets with course 253A. May be repeated for credit. S/U grading.

254A. Topics in Linguistics. (4) Seminar, four hours. Requisites: courses 200A, 200B. Course 201, 202, 203, 204A, 205, 206, 207, C208, 209A, 209B, 212, 213A, 213C, 214, 215, 216, or 218 may be required. Individual proseminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meets with course 254B. May be repeated for credit. Letter grading.


256A. Topics in Phonetics and Phonology II: Prospeeminar. (4) Seminar, four hours. Requisite: course 200A. Course 201, 203, or 204A may be required. Specialized topics in phonetics and phonology. May be repeated once for credit. Meets with course 251A. In Progress grading (credit to be given only on completion of course 256B).
256B. Topics in Phonetics and Phonology II: Proseminar. (2) Seminar, two hours. Requisite: course 256A. Specialized topics in phonetics and phonology. May be repeated once for credit. Letter grading.

257A. Topics in Syntax and Semantics II: Proseminar. (4) Seminar, four hours. Requisite: course 200B. Course 201, 202, 203, 204A, 205, 206, 207, C208, 209A, 209B, 212, 213A, 214, 215, 216, or 218 may be required. Specialized topics in syntax and semantics. May be repeated once for credit. Meets with course 252A. In Progress grading (credit to be given only on completion of course 257B).

257B. Topics in Syntax and Semantics II: Proseminar. (2) Seminar, two hours. Requisite: course 257A. Specialized topics in syntax and semantics. May be repeated once for credit. Letter grading.

258A. Topics in Language Variation II: Proseminar. (4) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. May be repeated once for credit. Meets with course 253A. In Progress grading (credit to be given only on completion of course 257B).

259A. Topics in Linguistics II: Proseminar. (4) Seminar, four hours. Requisites: courses 200A, 200B. Course 201, 202, 203, 204A, 205, 206, 207, C208, 209A, 209B, 212, 213A, 214, 215, 216, or 218 may be required. Specialized topics for seminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. May be repeated once for credit. Meets with course 255A. In Progress grading (credit to be given only on completion of course 259B).

259B. Topics in Linguistics II: Proseminar. (2) Seminar, two hours. Requisite: course 259A. Individual topics in linguistics. Specialized topics in linguistics such as child language, sociolinguistics, neurolinguistics, computational linguistics, languages of world, psycholinguistics, etc. May be repeated once for credit. Letter grading.

260A-260B-260C. Seminars: Phonetics. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward 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) Seminar, 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) Seminar, 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) Seminar, 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: Psycholinguistics/Neurolinguistics. (2 or 4 each) Seminar, three hours. Special topics may include child language, neurolinguistics, psycholinguistics, sociolinguistics, etc. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A-265B-265C. American Indian Linguistics Seminar. (1 or 4 each) Seminar, two hours; fieldwork, four hours. Presentation of research on American Indian linguistics. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 1 unit. May be repeated for credit. S/U grading.


276. Linguistics Colloquium. (No credit) Designed for graduate students. Same as course 275, but taken without credit by students not presenting a colloquium. S/U grading.

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


411A-411B. Research Orientation. (2-2) Designed for graduate students. Sequence of lectures by department faculty to acquaint new graduate students with research directions and resources of department and elsewhere on campus. May not be applied toward M.A. or Ph.D. degree requirements. S/U grading.

422. Practicum: Phonetic Data Analysis. (2) Designed for graduate students. Workshop in examination of phonetic data, such as sound spectrograms, oscillographic records, and computer output. May not be applied toward M.A. or Ph.D. degree requirements. S/U grading.

444. M.A. Thesis Preparation Seminar. (4) Student presentations, two hours. Student presentations of proposed topics, or M.A. theses, with discussion and criticism by other students and faculty. May not be applied toward M.A. or Ph.D. degree requirements. S/U grading.

495. College Teaching of Linguistics. (2) Seminar, to be arranged. Designed for graduate students. Required of all new teaching assistants. Seminars, workshops, and apprentice teaching. Selected topics, including curriculum development, various teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

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

596A. Directed Studies. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward M.A. or Ph.D. degree requirements. May be repeated for credit. S/U grading.

596B. Directed Linguistic Analysis. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward M.A. or Ph.D. degree requirements. May be repeated for credit. S/U grading.

597. Preparation for M.A. Comprehensive and Ph.D. Qualifying Examinations. (1 to 8) Preparation: at least six graduate linguistics courses. May be taken only in terms in which students expect to take comprehensive or qualifying examinations. May not be applied toward M.A. degree requirements. May be repeated for credit. S/U grading.


599. Research for Ph.D. Dissertation. (1 to 16) Preparation: advancement to Ph.D. candidacy. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U grading.

Management / 447

Management
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Carla Hayrn, Ph.D.
John S. Hughes, Ph.D. (Ernst and Young Professor of Accounting)
Sanford M. Jacoby, Ph.D. (Howard Nobel Professor of Management)
Uday S. Karmarkar, Ph.D. (Los Angeles Times Professor of Management and Policy)
Barbara S. Lawrence, Ph.D.
Edward E. Leamer, Ph.D. (Chauncey J. Medberry Professor of Management)
David Lewin, Ph.D. (Neil Jacoby Professor of Management)
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Bruce L. Miller, Ph.D.
Sanjog Misra, Ph.D.
Judith D. Olian, Ph.D. (John E. Anderson Professor of Management)
Alfred E. Osborne, Jr., Ph.D.
William G. Ouchi, Ph.D. (Sanford and Betty Sigoldt Professor of Corporate Renewal)
Kumar Rajaram, Ph.D.
Richard W. Roll, Ph.D. (Joel Fried Professor of Applied Finance)
Peter E. Rossi, Ph.D. (James A. Collins Professor of Management)
Richard P. Rumelt, D.B.A. (Harry and Elsa Kunin Professor of Business and Society)
Marjorie Sasaki, Ph.D.
Rakesh K. Sarin, Ph.D. (Paine Professor of Management)
Hans Schollhammer, D.B.A.
Eduardo S. Schwartz, Ph.D. (California Professor of Real Estate and Land Economics)
Avindhar Subrahmanyam, Ph.D. (Goldyne and Irwin Hearsh Professor of Money and Banking)
E. Burton Swanson, Ph.D.
Christopher S. Tang, Ph.D. (Edward W. Carter Professor of Business Administration)
Senior Lecturers
Gonzalo Freixes, J.D.
Ariela D. Herman, Ph.D.
David S. Ravetch, M.A.
Robert S. Spich, Ph.D.
Eric H. Sussman, M.B.A.

Lecturers
Julie Ann Gardner-Treloar, M.B.A.
Peter Guber, LL.M.
Jane Guerin, J.D.
Gordon L. Klein, J.D.
Danny S. Litt, M.B.A.

Adjunct Professors
William M. Cockrum, M.B.A.
Janis S. Forman, Ph.D.
Robert F. Foster, M.B.A.
George T. Geis, Ph.D.
Farhad A. Haggi, Ph.D.
Gerald Nickelsburg, Ph.D.
Peter S. Pao, Ph.D.
James R. Stengel, M.B.A.

Adjunct Associate Professor
Robert M. McCann, Ph.D.

Adjunct Assistant Professors
Anke M. Audenaert, M.A.
Jason C. Hsu, M.Sc., Ph.D.
James Kim, M.Eng., M.B.A.
Andres Terech, Ph.D.

Scope and Objectives
The John E. Anderson Graduate School of Management at UCLA offers a variety of programs leading to graduate degrees at the master’s and doctoral levels. These include an academic (M.S.) and professional (M.B.A.) master’s and a Master of Financial Engineering (M.F.E.), as well as an 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. The school also offers part-time dual Executive M.B.A. degrees with the National University of Singapore (NUS) Business School and with the Universidad Adolfo Ibañez (UAI) in Santiago, Chile, that prepare participants for top positions in organizations around the world. A Ph.D. in Management is also offered, as are a certificate Executive Program and research conferences and seminars for experienced managers.

The school offers an undergraduate minor in Accounting and several undergraduate courses in management. Enrollment in these courses, although open to all University students who have completed the prerequisites, is limited. The school limits the number of courses taken by undergraduate students to 11.

Undergraduate Study

Accounting Minor
The Accounting minor provides students with a comprehensive accounting background; admission is competitive and based on overall UCLA grade-point average, grade-point average in preadmission courses, and the grades in Management 1A and 1B. Decisions on admission to the minor are made by the Anderson School Accounting Area. Applications are accepted in Fall, Winter, and Spring Quarters. Nontransfer students must apply subsequent to completing 90 units. Transfer students must apply after completing two academic quarters (excluding Summer Sessions) at UCLA.

To enter the minor, students must (1) have a minimum cumulative UCLA grade-point average of 3.2, (2) complete all required preadmission courses with a minimum course grade-point average of 3.2, and (3) receive grades of B or better in Management 1A and 1B. Repetition of more than one preadmission course or of any preadmission course more than once results in automatic denial of admission to the minor. Satisfying these requirements does not guarantee admission to the program, as only a limited number of students are admitted each year. For further information, see http://www.anderson.ucla.edu/25205.xml.

Required Preadmission Courses (31 units minimum): Economics 1, 2, any statistics course offered or considered transferable to UCLA, Management 1A and 1B (former course 100 taken at UCLA may be substituted), Mathematics 3A or 31A, 3B or 31B or 31E, one Writing II course.

In many cases, more credit is allowed. All preadmission courses except Management 1A and 1B must be completed at UCLA with a grade of C 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Management, the Master of Business Administration (M.B.A.) degree, and the Master of Financial Engineering (M.F.E.) 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. Principles of Accounting. (4-4) Lecture, three hours; discussion, one hour. Not open to freshmen. P/NP or letter grading. 1A. Introduction to financial accounting principles, including preparation and analysis of financial statements. Current liabilities. Valuation and recording of asset-related transactions, including cash, receivables, marketable securities, inventories, and long-lived assets. Current liabilities. Requisite: course 1A. 1B. Follow-up to 1A. Completion of balance sheet with emphasis on debt and equity, including in-depth introduction to time value of money concepts. Introduction to partnership and individual income tax accounting.

117. Research Projects with Guidance of Professional. 1A-1B. Principles of Accounting. (4-4) Lecture, seven and one-half hours; discussion, one hour. Not open to freshmen. Review of range of ethical considerations in business decisions involving individuals, corporations, society, and international business. Analysis of cases for presentation and discussion. What is ethical dilemma posed? What is range of possible decisions and band of ethicality for interpreting them? Offered in summer only. Letter grading.

122. Management Accounting. (4) Lecture, three hours. Requisite: course 1B, one statistics course. Nature, objectives of cost accounting and control; job cost and process cost accounting; manufacturing for overhead; cost budgeting; cost reports; joint-product cost; distribution cost; standard cost; differential cost analysis; proportional relationships and break-even analysis. P/NP or letter grading.

123. Auditing. (4) Lecture, three hours. Requisite: course 120B. Comprehensive study of procedures used in verification of financial statements and related information, including ethical, legal, and other professional issues. Auditing of a complete set of financial statements. P/NP or letter grading.


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.


127A. Introduction to Derivative Securities. (4) Lecture, three hours. Requisite: course 1B. Study of fundamental income tax problems encountered by individuals and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax rules in capital transactions and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 1B. Recommended: course 127A. Study of tax issues arising in formation, operation, and termination of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. P/NP or letter grading.

127C. International Taxation. (4) Lecture, three hours. Recommended requisite: course 127A. Study of two principle areas of international taxation from U.S. regulatory perspective: taxation of American citizens and companies conducting business in international arena (outbound transactions) and taxation of foreign nationals and companies who invest or conduct business in the U.S. (inbound transactions). P/NP or letter grading.

128. Special Topics in Accounting. (4) Lecture, three hours. Requisite: course 120B. Selected topics in public accounting, such as audit and fraud examination, mergers and acquisitions, public-company status and going-public process, role of partner, serving entrepreneurial clients, and fund accounting. Discussion of case study of current interest in accounting profession. Business plan preparation. P/NP or letter grading.

130A. Basic Managerial Finance. (4) Lecture, three hours. Requisite: course 1B, one statistics course. Study of financial decision making by business firms, with emphasis on applications of economic and accounting principles; planning, pricing, financing, and control. Extensive use of problems and cases to illustrate analytical techniques employed in decision making. P/NP or letter grading.


132. Financial Planning. (4) Lecture, seven and one-half hours. Not open to freshmen. Application of behavioral finance to decision making. Simplifying rules of thumb feature prominently in students’ real-life decisions, whether they are choosing which wine to buy or deciding whether to get an M.B.A. Efforts to be behavioral须 consideration of some ways to adjust for them, helping people spend wisely, invest for future, and generally live happier lives. How behavioral principles can turn profit by demonstrating adverse reactions to changes in people’s economic positions, personal finances, and wealth and to understanding and predicting the far-reaching implications of these decisions in individuals, companies, and society.

133. Investment Principles and Policies. (4) Lecture, seven and one-half hours. Not open to freshmen. Introduction to investment analysis and policy, salient characteristics of governmental and corporate securities; policies of investment companies and investing institutions; relation of investment policy to money markets and business functions; security price-making forces; construction of personal investment programs.

134. Options, Futures, and Derivative Securities. (4) Lecture, seven and one-half hours. Not open to freshmen. Introduction to derivative markets. Derivatives are both exchange traded and over-the-counter securities. Derivative markets are world’s largest and most liquid. Focus on organization, role, and evolution of put and call options, futures, and other options on different underlying and exotic options. Offered in summer only. Letter grading.


141. Data and Decisions in Business. (4) Lecture, seven and one-half hours. Not open to freshmen. Business decisions are made with partial information in uncertain environment. Introduction to data analysis algorithms that are appropriate for generating information under uncertainty in decision making. Use of decision tree analysis and analysis of potential outcomes, with special emphasis on the role of imperfect information in decision making. P/NP or letter grading.

142. Information Technology in Accounting. (4) Lecture, seven and one-half hours. Not open to freshmen. Introduction to role and use of models and modeling in managerial decision making, with focus on important types of models and model application, and insight and information that may be gained from use of modeling. Enables managers to under-
stand role of quantitative models in firms that are most often applicable in business planning and decision making. Discussed are applications in the area of accounting, finance, marketing, and operations, with emphasis on model formulation, interpretation of solutions, and understanding of mathematical versus verbal explanation of situations. Use of solution techniques and operations problems. Offered in summer only. Letter grading.

143. Technology and Operations Management. (4) Lecture, seven and one-half hours. Not open to freshmen. Designed to provide an understanding and appreciation of how advances in information technology management, specifically as management consultants in accounting firms. Fundamental concepts and strategies for analyzing and evaluating various technological factors. Use of statistical, market information, and managing new technologies. How to differentiate technology products, market them to tightly focused market segments, and develop effective competitive strategies. Frameworks include technology adoption curve, developing whole products, product platform and product line strategy, program management, managing disruptive technology adoption, target market scenarios, managing through strategic dissonance, and compelling value creation. Students analyze recent technology cases ranging from semiconductors and online platforms to green vehicles and biotechnology companies. Offered in summer only. Letter grading.

150. Elements of Industrial Relations. (4) Prerequisites and methods of effectively utilizing human resources in organizations. Relationship between social, economic, and environmental factors and current problems in industrial relations.

151. Business Leadership. (4) Lecture, 30 hours. Not open to freshmen. Designed to enhance student knowledge and understanding of leadership concepts. Framework grounded in principles of individual, group, and organizational behavior. There is an extant model of leadership that has been sufficiently scientifically validated to form the foundation of the framework that has driven out other models. Different perspectives offered on leadership, with emphasis on development of skills that support effective leadership. Combination of readings, lectures, cases, experiential exercises, and class discussion to allow students to determine their own leadership strengths and limitations, and to develop plans for maintaining/enhancing their strengths and overcoming their limitations. Offered in summer only. Letter grading.

152. Business Strategy. (4) Lecture, seven and one-half hours. Not open to freshmen. Fundamentals of business strategy and corporate strategy and designed to provide an understanding of modern strategy frameworks and methods, including methods for assessing attractiveness of markets, defining and evaluating strategy of firms within those markets, and implementing organization that can deliver on that strategy. Seen from perspective of general managers who have overall responsibility for performance of firms or business units within firms. Development of general management perspective to understand fundamental concepts in leading through organizations and people. Offered in summer only. Letter grading.

153. Human Resources. (4) Lecture, seven and one-half hours. Not open to freshmen. Systematic exposure to management of human resources (HR) — in organizations to enhance knowledge of HR management and ability to apply that knowledge to a variety of decision situations. Management of human resources for competitive advantage. Topics include HR management strategy, HR and business performance, selecting and retaining human capital, employee engagement and branding, compensation and reward systems, and managing performance, managing employment conflict, national culture impact on HR management, leadership development and succession planning, and organizational change. Offered in summer only. Letter grading.

154. Management of Organizations. (4) Lecture, seven and one-half hours. Not open to freshmen. Introduction to strategic and operating issues and decisions involved in managing business and operational processes within enterprises. Operational processes is one that uses organization's resources to transform inputs into goods, then utilizes them to provide services, or does both. Provides students with conceptual framework and serves to ensure them to better understand why processes behave as they do and to involve them in organization's defining strategic decisions — those related to key processes affecting organizational performance. Offered in summer only. Letter grading.

155. Organizational Behavior. (4) Lecture, seven and one-half hours. Not open to freshmen. Designed to provide practical guide to managing behavior in organizations, drawing on social sciences to identify key human tendencies that pose obstacles to organizational effectiveness. Topics include challenges of making effective, motivating others to implement one's vision, managing groups and teams, and influencing those who resist ideas. Exploration of these issues using readings, cases, lectures, discussions, guest speakers, and experiential exercises. Why smart people make bad decisions, use and abuse of authority, extrinsic and intrinsic motivation, performance management, group formation, group process, explicit and implicit prejudice, stereotypes and their consequences, principles of persuasion and negotiation. Offered in summer only. Letter grading.

157. Elements of Real Estate and Urban Land Economics. (4) Examination of business decision making related to real estate activities and influencing real estate market functions and land use. Emphasis on decision making as it relates to appraising, building, financing, managing, marketing, and using urban property.

180. Special Topics in Management. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

182. Leadership Principles and Practice. (4) Knowledge and skills leading to effectiveness in interpersonal relationships. Understanding oneself as a leader and others as individuals and as members of working groups. Understanding of group process, including group leadership. Lectures and "sensitvity training" laboratory.

185. Community or Corporate Internships in Management. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with assigned faculty member to discuss periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Management. (2 to 8) Tutorial, to be arranged. Supervised individual research or investigation of selected research topic under guidance of faculty member. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Advanced Microeconomics. (4) Seminar, three hours. Requisites: course 405. Economist's approach to organization and competitive models. 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 numeric and textual data into carefully formulated alternative scenarios and generating a set of macroeconomic variables (growth, inflation, unemployment, interest rates, and exchange rates), industry data, and firm data. Letter grading.

201B. Econometrics and Business Forecasting. (4) Lecture, three hours. Combination of standard topics in applied econometric modeling. Emphasis on assumptions underlying classical normal linear regression model, special problems in application, and interpretation of results. Practical applications extensively developed in student projects.


202B. Economic Consulting and Applied Managerial Economics. (4) Lecture, three hours. Requisites: courses 402, 405. Use of economic methods to analyze issues of intellectual property, environmental damage, trademark infringement, brand value, and consumer demand. Focus on econometric thinking and problem solving using case studies as basis for lectures and homework. S/U or letter grading.

203A. Economics of Decision. (4) Discussion, three hours. Preparation: basic probability theory. Basics of single-person decision theory and introduction to non-cooperative game theory. Examination in some detail of von Neumann/Morgenstern expected utility theory. Other topics in decision theory include subjective expected utility theory and departures from expected utility behavior. S/U or letter grading.


205B. Market Power, Mergers, and Antitrust. (4) Lecture, three hours. Requisites: course 405. Topics in applied industrial organization, including merger policy, differentiated product demand, market power, and Department of Justice and Federal Trade Commission Merger Guidelines. Examination of issues in antitrust based on law and economics, with emphasis on practice and measurement. S/U or letter grading.

205C. Business Forecasting for Foreign Economies. (4) Requisite: course 201A. Forecasting changes in business activity, population, industrial structure, productivity, Gross Domestic Product and its components for selected countries.

207. Resource Administration of Nonmarket Activities. (4) Seminar, three hours. Requisite: 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.

208. Public Services and Private Functions. (4) Requisites: courses 405, 406. Sources and uses of federal, state, and local revenues and their impact on public and private resource allocation. Examination of proper roles of government and private sector in financing and provision of public goods and services.

209. Elements of Economic Organization. (1 to 8) Same as Law M239.) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization. Examination of structure of business enterprises and techniques of allocation of control, risk, and return. Topics include venture capital investments, debt and loan agreements, employment agreements, and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. S/U or letter grading.
209A–209B. Elements of Economic Organization. (1 to 2 each) (Same as Law M239.) Lecture, three hours. Introduction to the fundamental vocabulary and concepts, including basic principles of accounting and valuation. Course M209A is enforced prerequisite to 209B. Advanced course in business organization. Examination of structure of business finance, including capital structure, risk of control, risk, and return. Topics include venture capital investments, debt and loan agreements, employment agreements, distribution and management agreements (including franchising), motion picture production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions. Of deals. In Progress (M209A) and S/U or letter grading.

210A. Mathematical Programming. (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. (Discussion, three hours. Preparation: probability theory at level of Electrical Engineering 131A or Mathematics 170A. Focus on stochastic structures with implications for modeling processes, renewal theory, Markov chains, and Markov decision processes, with emphasis on problem formulation, decision making, and characterization of optimal strategies. 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. (Discussion, three hours. Preparation: linear programming. Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer programming models and their applications, (2) establish connections between these technical foundations and real problems drawn from many areas of management science, and (3) build professional tools needed to apply these tools. S/U or letter grading.

211A. Nonlinear Mathematical Programming. (Discussion, three hours. Requisites: course 210A, Mathematics 32A. Theory, methods, and 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 methods, and survey of currently available computer software. S/U or letter grading.

211B. Large-Scale Mathematical Programming. (Discussion, three hours. Requisite: 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, multivisonal, and stochastic aspects in pursuit of computationally tractable S/U or letter grading.

212A. Decision Sciences Models I. (Lecture, four hours. Requisites: course 407, Mathematics 31B. Broad survey of deterministic models of decision sciences, including solution methods and applications management. Solution methods include linear programming, network optimization, integer programming, nonlinear programming. Application areas include corporate planning, finance, marketing, production and operations management, distribution, and project management. S/U or letter grading.

212B. Decision Sciences Models II. (Lecture, four hours. Requisites: courses 402, 407. Broad survey of nonlinear, time-staged, and probabilistic models for managerial decision making. Application areas include finance, marketing, facilities design, production, and energy systems. S/U or letter grading.

213A. Intermediate Probability and Statistics. (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 sequels. S/U or letter grading.

213B. Statistical Methods in Management. (Discussion, three hours. Requisite: course 402. Introduction to parameter and interval estimation, simple and multiple linear regression and correlation, fixed, random, and mixed models, analysis of variance models, and nonparametric statistics, all as they apply to management studies. S/U or letter grading.

213C. Introduction to Multivariate Analysis. (Discussion, three hours. Preparation: working knowledge of functional approaches, and survey of currently available 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.

214. Managerial Decision Making. (Lecture, three hours. Introduction to principles of rational judgment and choice, common behavioral biases of managers and consumers, and corrective tools and procedures, drawing heavily on disciplines of psychology and behavioral economics. Topics include decision structure, objective vs. subjective confidence, likelihood judgment, risk perception and risk-taking, decision under uncertainty, multiattribute choice, framing and mental accounting, intertemporal choice, allocation decisions, organizational decision making, choice architecture, happiness, and well-being. S/U or letter grading.

215A. Negotiations Analysis. (4) Formerly numbered 215D. Lecture, three hours. Series of negotiation exercises to foster development of students' negotiation skills and experience. Use of economic and game-theoretic concepts in debrief to gain insight and develop framework for basic negotiation principles applicable. S/U or letter grading.


215D. Time-Series Analysis. (Discussion, three hours. Requisite: course 213B. Univariate Box/Jenkins analysis, transfer functions, and intervention analysis. Relationship between econometric and time-series models, Granger causality, multiple time-series analysis, applications in modeling and forecasting. S/U or letter grading.

216A. Simulation of Modeling and Analysis. (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. (Lecture, three hours. Requisite: course 402. Managerial decision making occurs in a universe of uncertainty which may seem about events over which no individual has any control or it can be about what other individuals will do. Framework provided by decision analysis in each decision, with application of framework to such scenarios as product development, litigation, business of treasuring, and bidding. S/U or letter grading.

217B. Game Theory. (Lecture, four hours. Requisites: 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. Special 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.

220. Corporate Financial Reporting. (Lecture, three hours. Requisite: course 403. In-depth treatment of significant corporate financial reporting issues to enhance understanding of financial statements and student ability to interpret and use information contained in these disclosures. Emphasis on economic substance of transactions. S/U or letter grading.

222. Motivating Management. (Lecture, three hours. Requisite: course 403. Use of basic microeconomic answers to what information is needed to make managerial decisions, what incentives are needed to motivate managers, and how information should be recorded to facilitate both. Essential for careers in compensation, private equity, and general management. S/U or letter grading.

223. Psychology and Personal Finance. (Lecture, three hours. Consideration of ways to address behavioral influences that might cause individuals to spend wisely and invest for future. How behavioral principles can help by developing new financial services and products for consumers. Letter grading.

224. Business Law for Managers and Entrepreneurs. Lecture, three hours. Introductory course that uses practical approach to teach students to recognize, understand, and manage legal issues. Topics include contract law, litigation process and alternatives, intellectual property law, antitrust, corporate law, employment law, collateralized lending, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or letter grading.

225. Law and Management of Nonprofit Organizations. (Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofit organizations. Topics include how to start nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Code Section 501(c)(3), corporate governance, political and legislative activity restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.

226. Special Advanced Topics in Accounting. (Lecture, three hours. Requisite: course 403. Examination of advanced topics in accounting that arise in business combinations and international accounting practices, including principles underlying consolidated financial statements, treatment of unconsolidated subsidiaries and affiliate investments, translation of foreign exchange, and valuation of derivatives for hedging exchange risk. S/U or letter grading.


229A. Special Topics in Accounting. (4) Lecture, three hours. Designed for Ph.D. students. Examination in depth of current issues concerning accounting, such as application of information economics and principal-agent model to accounting.

229B. Empirical Research in Accounting. (4) Lecture, three hours. Preparation: training in econometrics. Describes, introduces to empirical research, and familiarizes students with empirical accounting literature, focusing on role that accounting information plays in formation of capital market prices.

229X-229Y/229Z. Accounting Workshops. (1-3) Discussion. Two hours. Designed for Ph.D. students. Intended to develop ability to critically evaluate research in fields relevant to study of accounting. Papers presented in colloquium format by leading scholars in accounting. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U grading.

230. Theory of Finance. (4) Lecture, three hours. Requisites: course 408. Primary focus on valuation of corporate liabilities and other securities under uncertainty. Capital asset pricing model presented rigorously and compared with more recent theories of asset pricing such as arbitrage pricing theory and option pricing model, using empirical evidence. Secondary focus on analysis of problems in corporate finance such as capital structure and the cost of capital. The market for corporate control. S/U or letter grading.


231B. Nonprofit Sector Financial Policy. (4) Lecture, three hours. Requisites: courses 408, 430. Identification and solving of problems for all types of nonprofit organizations, with attention to funds accounting, budgeting and control, investment decision making when market valuation cannot be used as criterion, and sources of funds for nonprofit organizations. Use of cases. S/U or letter grading.

231C. Corporate Valuation. (4) Lecture, three hours. Requisites: courses 408, 430, Lectures, discussions, and student presentations. Issues and analytical tools relevant for valuation of various problems for corporations. Theories of discounted cash flow valuation (DCF) and relative valuation using market multiples. Theories of practice to value different projects, including IPO, mergers, acquisitions, divestitures, and private firms. Exploration of how real options affect investment decisions and how they can be identified and valued. Letter grading.

231D. Takeovers, Restructuring, and Corporate Governance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Process by which corporate control transactions take place; role of market for corporate control in leading to economic restructuring and shifts in resource allocation by corporations. Empirical evidence on economic and capital market reactions to control transactions and to defensive measures by management. Focus on interaction of strategic planning, firm value maximization, and investment decisions in life cycle of growth of firm. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing companies at stage of intense capitalization and selection of financing vehicles that may be appropriate to securing organizations’ money requirements. S/U or letter grading.

232A. Security Analysis and Investment Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Topics include security valuation, application of portfolio theory to investment decisions, performance evaluation, and basics of fixed income portfolio management strategies. S/U or letter grading.


232D. Option Markets. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Organization and role of organized derivative markets, including listed and OTC options and futures: arbitrage and hedging relationships, valuation of derivative trading strategies, and innovations in derivative markets. Students learn fundamentals and develop skills by playing option trading game and writing term paper analyzing their strategies. S/U or letter grading.

232E. Market and Credit Risk Management. (4) Lecture, three hours. Requisites: courses 408, 430. Discussion of regulatory environment for both market and credit risk management, data necessary to manage these risks, types of models used for risk management, types of securities and techniques for hedging market and credit risks, performance measurement of risk management systems, and other types of risks that affect risk management, such as operation risk, liquidity risk, commodity risk, weather risk, and model risk. Letter grading.

232F. Behavioral Finance. (4) Lecture. Three hours. Requisites: courses 408, 430. Introduction to and explanation of evidence of anomalous return behavior found in U.S. equities markets. Presentation of some parameters that determine if a security or a security characteristic is priced incorrectly. Emphasis on behavior of investors playing off each other, and other types of interactions. S/U or letter grading.

232G. Financial Institutions. (4) Lecture, three hours. Enforced requisite: course 408. Introduction to and explanation of evidence of anomalous return behavior found in U.S. equities markets. Presentation of some parameters that determine if a security or a security characteristic is priced incorrectly. Emphasis on behavior of investors playing off each other, and other types of interactions. S/U or letter grading.


237A. Fundamentals of Corporate Finance and Risk Management. (4) Lecture, three hours. Limited to Master of Financial Engineering Program students. Examination of broad range of issues faced by corporate financial managers, including analysis of investment and financing decisions of firms, impact on firms of agency costs and asymmetric information, mergers and acquisitions, private equity, and risk management strategies and tools. S/U or letter grading.

237B. Fundamentals of Investments. (2) Lecture, three hours. Limited to Master of Financial Engineering Program students. Introduction to the capital market and portfolio choice, standard discounted cash flow approaches, and no-arbitrage framework for valuing financial securities. Basic theoretical aspects of option pricing, such as the Black-Scholes option pricing model (CAPM), arbitrage pricing theory (APT), and Fama-French Three-Factor model. Development and illustration of dynamic portfolio selection and optimization approaches. S/U grading.


425C. Behavioral Foundations of Human Resource Management. (4) Requisite: course 250B. Topics include development and training; human resource accounting; behavioral foundations of participation management; motivation; production; and satisfaction; designing reward systems; and evaluation of organization effectiveness. Emphasis on understanding, predicting, and influencing human behavior in organizations. Organizational pay and reward systems and practices that are shaped by strategic, labor market, and motivation-al considerations. Specific topics include variable compensation (e.g., bonus, profit-sharing, stock ownership, and stock option plans) and noncompensation rewards; compensation and rewards for performance and in entrepreneurial and public organizations; fringe benefits; executive compensation; and international and comparative compensation/reward practices. S/U or letter grading.

M255. Comparative Industrial Relations. (4) (Same as Public Policy CM231.) Lecture; three hours, outside study, nine hours. Requisite: course 409 or elementary knowledge of statistics. Analysis of data on international labor-management relations, union structure and goals, and influence of external labor market conditions. S/U or letter grading.

256. Leadership and Ethics. (4) Lecture, three hours. Examination of leadership and ethical behaviors that promote optimal productivity, satisfaction, retention, and development. Emphasis on leadership behaviors and skills that respond to emergent uncertainties and to address situations where intense pressures of time and cost are present. Letter grading.


258. Research Seminar: Human Resources and Organizational Behavior. (1 to 4) Seminar, two hours. Designed for Ph.D. students. Examination of in depth of problems or issues of current concern in human resources and organizational behavior. 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. S/U or letter grading.

259B. Advanced Studies in Human Resource Management. (4) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classic and emerging theories and research in field of organizational behavior, with focus on micro-level topics related to individual and team processes. Exploration of how individual behaviors, cognitions, and perceptions are affected by organizational context, structure, and culture. S/U or letter grading.


261B. Global Marketing Management. (4) Lecture, three hours. Requisite: course 411. Analysis of opportunities, distinctive characteristics, and emerging trends in foreign markets, including exploration of alternative methods and strategies for entering foreign markets; organizational planning and controls; impact of social, cultural, economic, and political differences; and problems of adapting American marketing concepts and methods. Letter grading.

263A. Consumer Behavior. (4) Lecture, three hours. Requisite: course 411. Study of nature and determi- nants 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, con- sumption, and purchasing behavior. S/U or letter grading.

264A. Market Research. (4) Lecture, three hours. Requisite: course 411. Designed for prospective users of research results rather than for specialists in re- search. Marketing research is aid to management de- cision making. Development of problem-analysis skills, providing knowledge of concepts and methods of marketing research, with increased sensitivity to limitations of marketing data. Letter grading.


265. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation, and management of brands. Discussion of challenges to creating and maintaining brands. Topics include building brand knowledge and identities, marketing mix and brands, brand architectures, and brand equity. Letter grading.

266A. New Product Development. (4) Lecture, three hours. Requisite: course 411. Examination of new product development (NPD) process with objec- tive of learning key tools and methods and applying them to case studies, exercises, and course project. Products viewed through three lenses: quantifiable ra- tional attributes, appeal due to emotional characteris- tics, and cost/technology/competitive tradeoffs. NPD process also investigated through five key phases: ideation, concept generation and selection, detailed design, prototyping and testing, and ramp-up and product launch. Coverage of mass customization, parallel prototyping, cost reduction, and creativity. Letter grading.


267. One-to-One Marketing. (4) Lecture, three hours. Requisites: courses 402, 411. Use of notion of customer life cycle as organizing principle and appli- cation to one-to-one marketing context. Frameworks and analytical tools for interacting with customers and learning about their preferences as they evolve through four stages of customer life cycle: (1) custom- er acquisition, (2) initial post-promotion purchasing, (3) mid-maturity purchase and transaction behavior, and (4) customer attrition or switchover to other prod- uct lines. S/U or letter grading.

288. Selected Topics in Marketing. (4) Lecture, three hours. Requisite: course 411. Study of selected areas of marketing research and thought. Specific subjects vary each term depending on particular inter- ests of instructor and students. Individual projects and reports. May be repeated for credit. S/U or letter grading.

269A. Theory in Marketing. (4) Serves as mecha- nism to introduce students to development of market- ing thought. Issues pertaining to general topic of theo- ry development and testing. Prepares students for conducting theoretically grounded research in market- ing.

269B. Research in Marketing Management. (4) Discussion, three hours. Designed for Ph.D. students. Study of research issues associated with marketing management areas such as strategic marketing, market segmentation, new prod- uct 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) Discussion, three hours. Designed for Ph.D. students in management and related fields. Students are as- sumed to have good background in marketing princi- ples and to be familiar with probability, statistics, mathematical programming, and econometrics. Re- view of a range of quantitative models as applied in marketing research. S/U or letter grading.

269D. Behavioral Research in Marketing. (4) Semi- nar, three hours. Designed for Ph.D. students who are conducting research in consumer behavior or related areas. Empirical research in consumer behavior sur- veyed and critically evaluated from theoretical as well as practical perspectives. S/U or letter grading.

269E. Special Research Topics in Marketing. (4) Designed for Ph.D. students. Advanced selected topics in marketing with emphasis on thorough examina- tion of one or two topics in current research and theo- ries. May be repeated for credit. S/U or letter grading.

269X/269Y/269Z. Workshops: Marketing. (1-1-2) Discussion, three hours. Designed for Ph.D. students. Required of all students during first two years of their Ph.D. work. Series consists of number of leading scholars in marketing and related disciplines who make presentations to marketing faculty and Ph.D. students. Active participation and intellectual inter- change that helps students gain richer perspective on field of marketing. In Progress (269X, 269Y) and S/U or letter (269Z) grading.


271C. Emergent Technologies. (4) Lecture, three hours. Special topics in new and emergent technolo- gies such as mobile computing, cloud computing, and visualization. Impact of the changing industrial environment on opportunities and impacts. Topics vary. May be repeated for credit. S/U or letter grading.


274A. Special Topics in Information Systems. (4) Seminar, three hours. Designed primarily for Ph.D. students. Examination in depth of problems or issues of current concern in information systems theory and practice. Topics vary. May be repeated for credit. S/U or letter grading.

278B. Workshop: Information Systems Research. (4) Seminar, three hours. Limited to Ph.D. students. Integration of research in information sys- tems theory, practice, and empirical re- search. In-depth consideration of research designs and results. Pre-requirement: P/S/U or letter grading. May be repeated for credit. S/U or letter grading.

274X-274Y-274Z. Current Research in Information Systems. (1-1-2) Seminar, two hours. Limited to Ph.D. students. Year-long sequence associated with leading Systems Theory and Management courses. Regularly scheduled presentations of current research and state-of-art developments in information systems field. Study and discussion of research presented. May be repeated for credit.

M277. Real Estate Finance Law. (1 to 8) (Same as Law M209.) Lecture, three hours. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics in- clude California deed of trust, installment land con- tracts and other mortgage substitutes, assignments of rents, receiverships, prepayment, foreclosure, pri- orities, California antideficiency legislation, impact of borrower bankruptcy on mortgage lenders, construc- tion lending, future advances lending, and secondary market. S/U or letter grading.

M277A-M277B. Real Estate Finance Law. Real Estate Securitization: Debt. (4) Lecture, three hours. Requisites: courses 408, 430. Involved in creating course text and real estate business trends are evaluated to determine alterna- tives to real estate investment opportunities. Use of cur- rent financial, economic, and investment theories and techniques to real estate investment opportunities in case studies and short course problems to illustrate de- termination of investment strategies. S/U or letter grading.

M278B. Real Estate Securitization: Equity. (4) Lecture, three hours. Requisites: courses 408, 430. Analysis of money, capital, and mortgage mar- kets to determine potential availability and costs of mortgage money from alternative sources. Evaluation of various sources of funds to determine factors influ- encing decisions to make mortgage loans. Examina- tion of all types of lending instruments, particularly
mortality instruments, and mortgage-based securities for their impacts on real estate investment decisions. S/U or letter grading.

279A. Cases in Real Estate Investments. (4) Lecture, three hours. Requisites: courses 408, 430. Development of understanding of principal issues involved with real estate investment and finance. Topics include real estate investment analysis and valuation, real estate development, project management, facility management, various contexts (single and multifamily residential, commercial/industrial, shopping center, and hotel properties), real estate taxation, real estate law, development process, master planning, REITs, and leasing and workout of troubled properties. S/U or letter grading.

279B. Entrepreneurial Real Estate Development. (4) Lecture, three hours. Requisites: courses 278A (or 279A), 408, 430. Introduction to various aspects of real estate development from perspectives of entrepreneur and investor. Coverage of all types of developments, involving single family, multifamily, hotel, office, retail, and industrial. Industry guest speakers to help reinforce principles taught. Real estate development simulation and group presentations to panel of investors included. S/U or letter grading.

280A. Studies, Research Philosophies, and Methodologies. (4) (Discussion, three hours. Designed for Ph.D. students. Survey of seminal studies of human systems, including individual, group, and interorganizational systems. Examination of methodologies, including experimentation, field studies, case approaches, and a range of analytic and descriptive procedures in data collection. Emphasis on existing literature, philosophy of science, and concepts. May be repeated for credit. S/U or letter grading.

280B. Personal and Professional Development. (4) Discussion, three hours. Designed for Ph.D. students. Provides setting where students may explore their own professional values and approaches in process of training and learning various standards of applied behavioral sciences and human systems development. S/U or letter grading.

280C. Research Design in Human Systems Studies. (4) (Discussion, three hours. Designed for Ph.D. students. Process of designing studies of human systems, including choice of research topics. Actively involves students in preparation of research proposals for research papers and Ph.D. dissertations. May be repeated for credit. S/U or letter grading.

281A. Sociotechnical Systems. (4) Designed for graduate students. Introduction to systems concepts and view of work organizations as interacting social and technical systems open to forces from the surrounding environment. Emphasis on developmental methodologies, including experimentation, field studies, case approaches, and a range of analytic and descriptive procedures in data collection. Emphasis on existing literature, philosophy of science, and concepts. May be repeated for credit. S/U or letter grading.

281B. Managerial Interpersonal Communication. (4) Discussion, three hours. Designed for graduate students. Interpersonal and personality factors affecting managerial communications. Styles and modes of communication in one-to-one, group, and large-systems settings. Opportunities offered to deepen understanding of one’s own communication styles and skills, considering verbal, nonverbal, perceptual, and cross-cultural aspects. S/U or letter grading.

282. Group and Their Facilitation. (4) Discussion, three hours. Development of cognitive and experiential understanding of dynamics of small group training and its applications; and development of skills in group counseling, self-help groups, small groups, and committees in managerial decision making. Analysis of relevant theory, research findings, and case studies. S/U or S/U with consent of instructor.

288A. Selected Topics in Behavioral Science. (4) Discussion, three hours. Designed for graduate students. Theories of human behavior fundamental to study of individual, group, organizational, and cultural behavior. Exploration in depth of selected theoretic positions, extending and consolidating behavioral science knowledge and application. May be repeated for credit. 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 organizations as sociotechnical systems engaged with various technologies and environmental factors, emphasizing design approaches emerging primarily from Europe, the Orient, and the U.S. In-depth comparisons of selected job and organizational design configurations. May be repeated for credit. S/U or letter grading.

288C. Selected Topics in Human Systems Studies and Organizational Behavior. (4) Discussion, three hours. Designed for graduate students. Psychological and social psychological aspects of human behavior and performance in organizations. Theoretical models, empirical findings, and applications of such topics as attitudes and values, cognitive and perceptual processes, behavioral conflict, and individual change processes. May be repeated for credit. S/U or letter grading.


288E. Proseminar: Behavioral and Organizational Sciences Colloquium. (4) Discussion, three hours. Designed for graduate students. Series of presentations by scholars and practitioners in behavioral 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.

290. Organization Theory. (4) Lecture, three hours. Examination of a range of ethical issues; and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

292A. Research and Development Policy. (Same as Public Policy M280A.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

292B. Growth, Science, and Technology. (Same as Public Policy M280B.) Lecture, three hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors impinging on their behavior. How technological breakthroughs (or discontinuities) can form new industries or transform nature of and population of firms in existing industries. S/U or letter grading.

292C. Comprehensive Planning in Public Sector. (4) Evolving modes of planning under complexity, with particular emphasis on public sector. Development of policy through standard setting, bargaining, and regulation; and negotiation, and reality and value judgments; social and technical dimensions of alternatives; and social and technological forecasting. S/U or letter grading.

293A. Political Environment of American Business. (4) Lecture, three hours. Examination of certain criticisms made by business the American political system. Designed to provide clearer understanding of political factors that influence business enterprise.

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.

295A. Entrepreneurship and Venture Initiation. (4) Exploration in entrepreneurship particularly concerned with formation and operation of new business ventures. Significant and important aspects of exploring new business opportunities and starting a business.

295B. Small Business Management. (4) Exploration of crucial aspects in managing small business enterprises. Emphasis on identification of characteristic operating problems of small firms and application of appropriate methods or techniques for their solution.

295C. Corporate Entrepreneurship. (4) Inquiries into nature of entrepreneurship and effective implementation of entrepreneurial strategies in large industrial enterprises. Emphasis primarily on managerial effects aimed at identification, development, and exploitation
of technical and organizational innovations, management of new product or process developments, and effective new venture management in a corporate context.


297A. Comparative and International Management. (4) Comparative study of practice of management in advanced countries, as affected by their social environments and development of management theory. S/U or letter grading.


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, multinational models in transactions with governmental agencies and foreign-based firms on a wide range of issues, such as establishment/disolution of joint ventures, extent of foreign ownership/managers' role in recent contributions to international business. S/U or letter grading.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Enforced requisite: course 205A or 405. Analysis of changing economic, political, demographic, and sociocultural conditions in developing countries as they affect the business environment. Process of economic growth, market-oriented 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 the 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 recent developments of theories, technology, 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.

M298E. Seminar: Neuroeconomics. (4) (Same as Psychology M267.) Seminar, three hours. Limited to graduate students. Analysis and discussion of research on cognitive and neural bases of decision making. S/U or letter grading.

298X-298Y-298Z. Management Strategy and Policy Research. (4) Seminar, three hours. Discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.


299R. Research Methods in Management. (4) Discussion, three hours. 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 Apprenticeship Practicum. (1 to 4) Seminar for teaching assistants, graduate teaching assistants, and visiting faculty. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum in Department of Management at UCLA. May be repeated for credit. S/U grading.

400. Mathematics for Management. (4) Lecture, three hours. Limited to graduate students. General mathematical background: fundamentals of mathematics, including topics from algebra, differential calculus in single and multiple variables, logarithmic and exponential functions, probability, and statistics; applications, including economic theory, finance, time value of money, inventory management, linear programming, and mathematical models. S/U grading.

401A-401B. Managerial Problem Solving. (3-3) Discussion, three hours. Use of international business simulation and series of complex multifacted cases to learn to apply M.B.A. core disciplines in real-world globally focused business problems. In Progress (401A) and letter (401B) grading.

402. Data and Decisions. (4) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, covariance, normal random variables), decision trees, estimation, hypothesis testing, and multiattributive decision problems. S/U grading.


404. Information Systems. (4) Lecture, three hours. Overview of information systems in organizations from perspective of general manager. Managerial and strategic uses of automatic data processing systems, technologies that underlie these systems, and ways such systems are developed and managed. S/U or letter grading.


508. Foundations of Finance. (4) Lecture, three hours. Introduction to managerial finance. Topics include time value of money, discounting and present values, valuation of bonds and stocks, risk and return, construction of optimal portfolios, capital budgeting, and weighted average cost of capital. Letter grading.


510. Operations Technology Management. (4) Lecture, three hours. Requires: courses 402, 403, 407, 401A. Principles and decision analysis related to effective utilization of factors of production in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.


512. Management of Organizations. (4) Lecture, three hours. Preparation: completion of first-year core program. Integrative approach to theory and practice of management in complex organizations, emphasizing managerial roles in designing organizational structures, creating/maintaining planning, control, information, incentive systems, different patterns of human interaction, and organizational structures and systems to produce.

513A. Managerial Computing. (4) Lecture, three hours. Preparation: completion of first-year core program. Integrative approach to theory and practice of management in complex organizations, emphasizing managerial roles in designing organizational structures, creating/maintaining planning, control, information, incentive systems, different patterns of human interaction, and organizational structures and systems to produce.


421A-421B. Communication Development for Leaders I, II. (2-2) Lecture, three hours. Course 421A is enforced requisite to 421B. Key attributes, knowledge, skills, and strategies necessary to succeed communicatively in workplace. Examination of business presentation skills, visual and verbal persuasion skills, and interpersonal communication skills. Lectures, experiential activities, video analyses, and student activities with focus on improving writing and speaking. Letter grading.

422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and reinforcement of oral and written communication skills, including audience analysis, persuasion, revising and editing, presentation of technical information, and use of computer technology. Organization of address, writing and speaking exercises. Personal attention to students' written communications and oral presentations.

427. Global Access Program. (8) Fieldwork, 60 hours. Reading: 403, 408, 410, 411, 414A, 420. Limited to Fully Employed M.B.A. Program students. Must be taken in Summer and Fall Quarters of third year. Faculty-guided consulting project with international company or U.S. company with international project focus. Establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. Letter grading.


440. International Preorientation. (1) Lecture, six hours. Limited to international students in M.B.A. program. Intensive preorientation workshop that meets six times (Saturdays included) per week for three weeks. Basic listening, speaking, writing, and working leading teams for case analysis, cold call participation, problem solving, and job search. Introduction to international research and career resources. May not be applied toward M.B.A. degree. Offered in summer only. S/U grading.

444A. Introduction to Applied Management Research. (2) Lecture, two hours. Limited to full-time M.B.A. program students. Must be taken after completion of first year in program. Methods of organizational and strategic analysis to determine relationship of organization with its environment. In Progress grading (credit to be given only on completion of courses 444B and 444C).

444B-444C. Applied Management Research: Two-Quarter Plan. (4-4) (Formerly numbered 444A-444B) Fieldwork, four hours. Limited to full-time M.B.A. program students. Must be taken after completion of first year in program. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations or (2) faculty-guided implemented faculty-led special research project worthy of publication in recognized academic research journal. In Progress (444B) and S/U or letter (444C) grading.

445. Applied Management Research. (8) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of one client or consulting organization. Includes client-consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable project recommendations. S/U or letter grading.

451. Fieldwork in Organizational Development. (2 to 12) Fieldwork, to be arranged. Requisite: course 284B. Supervised practical fieldwork in organizational development in interindividual, group, interpersonal, 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 on-the-job experience in business consulting and other forms of technical assistance for business firms and management in ethnic communities; seminars and other shared learning experiences in transmitting business administration technology to the urban ghetto.

453. Fieldwork in Arts Management. (4 to 12) Supervised experience and practical work in all phases of an arts management or humanities organization or cultural entity, cooperating with their peers at that institution. S/U or letter grading.

454. Fieldwork in Organizations. (1 to 4) Fieldwork, to be arranged. Preparation: completion of two terms of M.B.A. program. Supervised, nonpaid practical experience or fieldwork in organization as intern or fellow. Examination of predetermined assignment(s) pursuant to defined program of study that may include formal coursework. May not be applied toward M.B.A. degree requirements. S/U grading.

455E. International Exchange. (2 to 16) Lecture, 30 hours; discussions, 10 hours. Students attend to four M.B.A.-level courses at institutions with exchange agreements with Anderson School. Some courses may be taught in local language. In addition to learning subject matter of courses, intent is to provide opportunity for students to enhance their knowledge of region while exchanging ideas and views with their peers at that institution. S/U or letter grading.

457. Fieldwork in Investment Management. (4) Discussion, three hours. Use of academic theories learned in a practical experience by managing a portfolio started with donated funds. Issues and experiences experienced by typical investment firms and includes investment strategy, asset allocation, security analysis, and organizational issues. S/U or letter grading.

458L. International Studies. (4) Lecture, three hours; presentations, site visits, and discussions, 20 hours. Preparation: completion of first-year core courses in Fully Employed M.B.A. Program. Taught in English. Intensive one-week program in one foreign country with five lectures at UCLA before and/or after trip. Courses taught by school faculty members in conjunction with faculty members from partner institutions in that country. Attendance at presentations by government officials and business executives in destination country. Exposure to business practices and operations in destination country through site visits, study of country's role in international trade, comparative and contrasting it with U.S., and important historical and cultural aspects of destination country. May be repeated once for credit. Letter grading.

459E. International Exchange. (2 to 4) Lecture, three hours; discussion and site visits, 20 hours. Preparation: completion of first-year core courses in Fully Employed M.B.A. Program. Taught in English. Intensive one-week program in one foreign country. Course taught in English and designed for non-English-speaking students. Topics vary but are tailored to M.B.A. curriculum. Exposure to local business practices, visiting companies, and exploration of local cultural and historical sites. S/U or letter grading.

460A-460B. Managing Finance and Financing Emerging Enterprises. (2-2) Lecture, three hours. Course 460A is enforced requisite to 460B. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consideration and selection of financing vehicles that may be appropriate, augmented by requirements of organizations. In Progress (460A) and letter (460B) grading.

461A. Leadership Foundations I. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting diagnostic and decision-making skills for individuals. Uses simulation, decision simulations, and discussions to explore areas of charting job and career progress, working with others, and shaping work culture. S/U or letter grading.

461B. Leadership Foundations II. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461A, with focus on development of self-assessment and self-reflection skills. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on individual problem solving and decision making and team design and development. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 461C).

461C. Leadership Foundations III. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461B. Further exploration of leadership strengths and weaknesses, with emphasis on individual problem solving and development and decision making and team design and development. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

461D. Leadership Foundations IV. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461C. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on career development, social networks, and organizational design. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 461E).

461E. Leadership Foundations V. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461D. Further exploration of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.


465A. Quantitative Methods for Managers. (2) Lecture, two hours. 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 ad-
vantagously, to work effectively with model building specialists, and to make good use of models once they have been developed. S/U or letter grading.


466C. Financial Policy for Managers (2-2). Lecture, two hours. Limited to Executive M.B.A. Program students. Conceptual framework for thinking strategically about business decisions. Examination of interactions between firm and parties external to it through lens of game theory. Framework based on ideas underlying game theory, such as recognizing interdependencies among players, getting away from win-lose mindset, importance of added value of players, anticipating other players' reactions to one's own actions. S/U or letter grading.


469A-469B. Management of Human Resources. (2-2) (Formerly numbered 469B.) Lecture, three hours. Course 469A is enforced prerequisite to 469B. Limited to Executive M.B.A. Program students. Introduction to major areas of human resource management — personnel management, labor relations — accomplished by examining some major concepts, theories, and research related to each of these topic areas, as well as some practical problems managers posed by each. In Progress (469A) and letter (469B) grading.

470A. Introduction to Strategic Management Research. (2) Fieldwork, two hours. Limited to Executive M.B.A. Program students. Methods of organizational and strategic analysis to determine relationship of organization with its environment. In Progress grading (credit to be given only on completion of courses 470B and 470C).

470B. Strategic Management Research. (4) Fieldwork, four hours. Limited to Executive M.B.A. Program students. Preparation of strategic overview of selected company entailing collection and analysis of primary and secondary data, including (but not limited to) interviews of corporate executives, corporate financial and marketing data, industry reports, and customer and competitor interviews and surveys. In Progress grading (credit to be given only on completion of course 470C).

470C. Strategic Management Research. (4) Fieldwork, four hours. Limited to Executive M.B.A. Program students. Faculty reviews, analysis and evaluation of one strategic issue facing selected company and identified in course 470B. Presentation of final reports and evaluation of student efforts by corporate personnel. S/U or letter grading.

470D. Seminar: Policy Analysis. (2) Seminar, 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.

471A-471B. Management Practicum. (2-2) Lecture, three hours. Two-term individual or group (three to five students) project on global strategic issues designed to allow students to employ and enhance concepts learned in classroom. In Progress (471A) and letter (471B) grading.

472A. Marketing Strategy and Policy. (4) Lecture, four hours. 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. S/U or letter grading.

472B. Customer Information Strategy. (4) Lecture, four hours. Limited to Executive M.B.A. Program students. Exploration of innovation and marketing of products and services to customers. Use of creativity tools, customer research, and marketing science to create value and allocate resources so as to maximize revenues and profits that result. S/U or letter grading.

473A. Managerial and Organizational Processes. (2) Lecture, four hours every other week for 13 weeks. Limited to Executive M.B.A. Program students. Macromarketing, group relations, design and functioning of organizations, and relationships of organizations to their environment. S/U or letter grading.

474. Operations and Technology Management: Systems, Strategies, and Policies. (4) Lecture, three hours. Limited to Executive M.B.A. Program students. Analysis of strategic and operating policies and decisions for systems that produce goods and services. Examination of complex problems, such as production, inventory, scheduling of resources, distribution systems, and system location. Comprehensive operating problems.


476. Competitive Strategy and Business Policy. (4) Lecture, four hours. Limited to Executive M.B.A. Program students. Study of general management task of forging a corporate competitive strategy. Emphasis on economics of business rivalry within a variety of industrial settings and implications of changing environments on business strategy.

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, corporate social responsibility, and basic economic structure, and social responsibility.

478. Selected Topics in Management. (2) Seminar, two to three hours to three hours. Limited to Executive M.B.A. Program students. Study of selected problems and issues in an area of current concern in management. S/U or letter grading.

479. International Executive: M.B.A. Program. (2 to 4) Lecture, three hours; discussion and site visits. Preparation of one-year core courses in Executive M.B.A. Program. Intensive one-week program in one foreign country, with courses taught by faculty members from partner institutions in the region. Topics vary but are tailored to M.B.A. curriculum, including but not limited to finance, marketing, global economics, strategy, human resources, operations, and technology management exposure to local business practices, company site visits, and exploration of local cultural and historical sites. Letter grading.

480. Corporate Governance. (4) Lecture, three hours. Foundations for members of corporate boards of directors to understand their responsibilities, hone their skills, and learn to improve their practices. Topics include Securities and Exchange Commission, risk management, managing top management team of corporation. Letter grading.

481. Contemporary Issues in Business: Services Marketing and Customer Asset Management. (4) Lecture, three hours. Designed for prospective researchers to produce research results rather than for specialists in research. Focus on useful material on decision making. Development of problem-analysis skills, technological and practical aspects of marketing research, with increased sensitivity to limitations of marketing data. Letter grading.

482. Negotiations Behavior. (4) Lecture, three hours. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning. Letter grading.


484. Asian Business Environment. (4) Lecture, three hours. Theoretical issues related to analysis of cultural, economic, regional, and societal implications. Topics include political risk analysis, demographics, urbanization. Application to scenario planning in Asia-Paciﬁc region/countries. Letter grading.

485. Corporate Entrepreneurship. (4) Lecture, three hours. Managerial efforts aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in context of large corporations in manufacturing and service industries. Development of awareness and understanding of range, scope, and complexity of issues related to creation of organizational entrepreneurship and entrepreneurship for entrepreneurial endeavors, and insight concerning effective implementation of technological and organizational innovations in corporate setting. Letter grading.

486. Strategic Leadership and Strategic Implementation. (4) Lecture, three hours. Designed to address several fundamental aspects of leading complex organizations, with emphasis on important tasks of developing well-aligned, high-performance organizations and on challenges of leading change in organizations. Enables students to develop organized point of view on strategic leadership and to increase their awareness of themselves as leaders. Letter grading.

487A-487B. Entrepreneurship and Venture Initiation I, II. (2-2) Lecture, 90 minutes. Course 487A is enforced prerequisite to 487B. Limited to Executive M.B.A. Program students. Basic tools and jargon required for entrepreneurship that requires financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors in the process of founding new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. Letter grading.

488. Business Plan Development. (4) Lecture, three hours; discussion, one hour. Enforced prerequisites: courses 487A, 487B. Limited to Executive M.B.A. Program students. How to develop business plans, understanding of analytical processes required to produce plans, improvement of student writing and
oral presentation skills, and review of business plans of other entities. Writing of one complete business plan and presentation of it to experienced investors. Letter grading.

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

596. Research in Management. (1 to 8) Directed individual study or research. May be repeated. S/U or letter grading.

597. Preparation for Qualifying Examinations. (4 or 12) Preparation for master's comprehensive examination or Ph.D. qualifying examinations. S/U grading.


### MATERIALS SCIENCE AND ENGINEERING

**Henry Samueli School of Engineering and Applied Science**

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Gregory P. Carman, Ph.D.
Jane P. Chang, Ph.D. (William Frederick Seyer Professor of Materials Electrochemistry)

Yong Chen, Ph.D.
Bruce S. Dunn, Ph.D. (Nippon Sheet Glass Company Professor of Materials Science)

Nasr M. Ghoniem, Ph.D.
Mark S. Goorsky, Ph.D.
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**Associate Professors**

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**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**

The Materials Engineering major is a designated capstone major. Students undertake two individual projects involving materials selection, treatment, and serviceability. Successful completion requires working knowledge of physical properties of materials, and strategies and methodologies of using materials properties in the materials selection process. Students learn and work independently and practice leadership and teamwork in and across disciplines. They are also expected to communicate effectively in oral, graphic, and written forms.

**Materials Engineering B.S.**

**Capstone Major**

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.

**Materials Engineering Option**

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A, 20B, 20L; Computer Science 31 (or another programming course approved by the Faculty Executive Committee); Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1).

**The Major**

Required: Chemical Engineering 102A (or Mechanical and Aerospace Engineering 105A), Civil and Environmental Engineering 101 (or Mechanical and Aerospace Engineering 101), 108, Electrical Engineering 100, Materials Science and Engineering 104, 110, 110L, 120, 130, 131, 131L, 132, 149A, 150, 160, Mechanical and Aerospace Engineering 181A or 182A; two laboratory courses (4 units) from Materials Science and Engineering 121L, 141L, 143L, 161L; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Materials Science and Engineering 140); and three major field elective courses (12 units) from Chemical Engineering 114, Civil and Environmental Engineering 130, 135A, Electrical Engineering 2, 123A, 123B, 124, Materials Science and Engineering 111, 121, 122, 151, 161, 162, Mechanical and Aerospace Engineering 156A, 166C, plus at least one elective course (4 units) from Chemistry and Biochemistry 30A, 30AL, Electrical Engineering 131A, Materials Science and Engineering 170, 171, Mathematics 170A, or Statistics 100A.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

**Electronic Materials Option**

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A, 20B, 20L; Computer Science 31 (or another programming course approved by the Faculty Executive Committee); Electrical Engineering 10; Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1).

**The Major**

Required: Chemical Engineering 102A (or Mechanical and Aerospace Engineering 105A), Electrical Engineering 101, 121B, Materials Science and Engineering 104, 110, 110L, 120 (or Electrical Engineering 2), 121, 121L, 122,
130, 131, 131L, Mechanical and Aerospace Engineering 101, and 181A or 182A; four courses (16 units) from Electrical Engineering 123A, 123B, Materials Science and Engineering 132, 150, 160; 4 laboratory units from Electrical Engineering 172L, Materials Science and Engineering 141L, 161L, 190; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Materials Science and Engineering 140); and one major field elective course (4 units) from Electrical Engineering 110, 124, 131A, 172, Materials Science and Engineering C111, C143A, 162.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaaa.library/gmqrintr0.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Materials Science and Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Materials Science and Engineering.

Materials Science and Engineering

Lower Division Courses

10. Freshman Seminar: New Materials. (1) Seminar, one hour; outside study, two hours. Preparation: high school chemistry and physics. Not open to students with credit for course 104. Introduction to basic concepts of materials science and new materials vital to advanced technology. Microstructural analysis and various material properties are discussed in conjunction with such applications as biomedical sensors, pollution control, and microelectronics. Letter grading.

90L. Physical Measurement in Materials Engineering. (2) Laboratory, four hours; outside study, two hours. Various physical measurement methods used in materials science and engineering. Mechanical, thermal, electrical, magnetic, and optical techniques. Letter grading.

Upper Division Courses

104. Science of Engineering Materials. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20A, 20B, 20L, Physics 1A, 1B. General introduction to different types of materials used in engineering design in metals, ceramics, plastics, and composites, relationship between structure (crystals and microstructure) and properties of technological materials. Illustration of their mechanical, electrical, and thermal properties and their applications in engineering. Letter grading.

M105. Principles of Nanoscience and Nanotechnology. (4) (Same as Engineering M101.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20, and Electrical Engineering 1 or Physics 1C. Introduction to underlying science encompassing structure, properties, and fabrication of technologically important nanoscale systems. New phenomena that emerge in very small systems (typically with feature sizes below few hundred nanometers) explained using basic concepts from physics and chemistry. Chemical, optical, and electronic properties, electron transport, structural stability, self-assembly, templated assembly and applications of various nanostructures such as quantum dots, nanoparticles, quantum wires, quantum wells and microcavities. Utilization in electronics. Letter grading.

110. Introduction to Materials Characterization A (Crystal Structure, Nanostructures, and X-Ray Scattering). (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Modern methods of materials characterization: fundamentals of crystallography, properties of X-rays, X-ray scattering; powder method, Laue method; determination of phase diagram dimensions, phase transformation; high-resolution X-ray diffraction methods; X-ray spectroscopy; design of materials characterization procedures. Letter grading.

110L. Introduction to Materials Characterization A Laboratory. (2) Laboratory, four hours; outside study, two hours. Requisite: course 104. Experimental techniques and analysis of materials through X-ray scattering techniques; powder method, crystal structure determination, high-resolution X-ray diffraction methods, and special projects. Letter grading.

C111. Introduction to Materials Characterization B (Electron Microscopy). (4) (Formerly numbered 111.) Lecture, three hours; laboratory, two hours; outside study, four hours. Requisites: courses 104, 110. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projections of defects, single crystals, replicas; scanning electron microscopy; emissive and reflective modes; chemical analysis; electron optics, and experiments. Concurrently scheduled with course C211. Letter grading.

C112. Cultural Materials Science II: In Vitro Microscopy and Microanalysis. (4) Lecture, three hours; laboratory, two hours. Preparation: general chemistry, or inorganic and organic chemistry. Methodology of sampling and microanalysis of cultural materials for study of their morphology, microstructure, and composition by applying in vitro optical, chemical, and instrumental methods. Topics include optical and electron microscopy, X-ray and electron spectroscopy, X-ray diffraction, infrared spectroscopy, chemical spot tests, and chromatography. Hands-on experience through object-conserving approach. Practical skills acquired on sampling and sample preparation methods of cultural materials and on analysis of microsamples using basic instruments for characterization of organic and inorganic compounds. Concurrently scheduled with course CM212. Letter grading.

120. Physics of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 104, 110 (or Chemistry 113A). Introduction to electrical, optical, and magnetic properties of solids. Free electron model, introduction to band theory and Schrödinger wave equation. Crystal bonding and lattice vibrations, mechanisms and characterization of electrical conductivity, optical absorption, magnetic behavior, dielectric properties, and p-n junctions. Letter grading.

121. Materials Science of Semiconductors. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120. Structure and properties of elemental and compound semiconductors. Electrical and optical properties, defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and ion-beam techniques. Heterostructures, band-gap engineering, development of materials for optoelectronic applications. Letter grading.

121L. Materials Science of Semiconductors Laboratory. (2) Lecture, 30 minutes; discussion, 30 minutes; laboratory, two hours; outside study, three hours. Concurrent: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, and thin film biaxial modulus and CTE. Letter grading.

122. Principles of Electronic Materials Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 104. Description of basic semiconductor materials for device processing; preparation and characterization of silicon, III-V compounds, and films. Discussion of principles of CVD, MOCVD, LPE, and MBE; metals and dielectrics. Letter grading.

130. Phase Relations in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 104, and Chemical Engineering 102A or Mechanical Engineering 105A. Summary of thermodynamic laws, equilibrium criteria, solution thermodynamics, mass-action law, binary and ternary phase diagrams, glass transitions. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory, two hours; outside study, four hours. Corequisite: course 131. Design and analysis 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 and analysis of heat treatment processes of alloys, growth of intermediate phases, gas-solid reactions, design of oxidation-resistant alloys, recrystallization, and grain growth. Letter grading.


C133. Ancient and Historic Metals: Technology, Microstructure, and Corrosion. (4) Lecture, two hours; laboratory, 90 minutes. Processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure of ancient and historic metals. Extensive laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Practical instruction in metallographic microscopy. Exploration of phase and stability diagrams of common alloy systems and analytical techniques appropriate for examination and characterization of metallic artifacts. Concurrently scheduled with course CM233. Letter grading.

140. Materials Selection and Engineering Design. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 132, 150, 160. Explicit guidance among myriad materials available for design in engineering. Properties and applications of steels, nonferrous alloys, polymeric, ceramic, and composite materials, coatings. Materials selection, treatment, and serviceability emphasized as part of successful design. Project grading.

141L. Computer Methods and Instrumentation in Materials Science. (2) Laboratory, four hours. Preparation: knowledge of BASIC or C or assembly language. Limited to juniors and seniors in Science and Engineering majors. Interface and control techniques, real-time data acquisition and processing, computer-aided testing. Letter grading.

143A. Mechanical Behavior of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 104, Mechanical and Aerospace Engineering 101. Plastic flow of metals under simple and combined loading, strain rate and temperature effects, dislocations, fracture, microstructural effects, mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (2) Laboratory, four hours. Requisites: courses 90L, 143A (may be taken concurrently). Methods of characterizing Materials Science and Engineering / 461
150. Introduction to Polymers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Polymerization mechanisms, molecular weight and distribution, chemical structure and bonding, structure crystallinity, and morphology and their effects on physical properties. Glassy polymers, springy polymers, elastomers, adhesives. Fiber forming polymers, polymer processing technology, plasticization. Letter grading.


160. Introduction to Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 104, 130. Introduction to ceramics and glasses being used as important materials for shaping, processing, chemical resistance, and unique properties. Examples of design and control of properties for specific applications in engineering. Letter grading.


162. Electronic Ceramics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 104, Electrical Engineering 1 (or Physics 1C). Utilization of ceramics in microwave tubes, logan, integrated circuit technology, glassy ceramics, ferrite ceramics, electronic devices, wave guide applications and designs. Letter grading.

170. Engaging Elements of Communication: Oral Communication. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive oral presentation and communication skills provided by building on strengths of individual personal styles in creation of positive interpersonal relations. Skill set prepares students for different types of academic and professional presentations for wide range of audienc es. Learning environment is highly supportive and interactive as it helps students creatively develop and greatly extend effectiveness of their communication and presentation skills. Letter grading.

171. Engaging Elements of Communication: Writing for Technical Community. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive technical writing skills on subjects specific to field of materials science and engineering. Students write review term paper in selected subject field of materials science and engineering from given set of journal publications. Instruction leads students through several crucial steps, including brainstorming, choosing title, coming up with outline, concise writing of abstract, conclusion, and final polishing. Other subjects include writing style, word choice, and grammar. Letter grading.

CM180. Introduction to Biomaterials. (4) (Same as Bioengineering CM178.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 104, or Chemistry 20A, 20B, and 30L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, biological function, processing, and treatment methods, and biocompatibility. Concurrently scheduled with course CM280. Letter grading.

188. Special Courses in Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in materials science and engineering for undergraduate students taught on experimental or temporary basis chosen to be solvable by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of or research of faculty and students. May be repeated for credit with approval.

199. Directed Research in Materials Science and Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. Occasional field trips may be arranged. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


C211. Introduction to Materials Characterization B (Electron Microscopy). (4) (Formerly numbered 211.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisites: courses 104, 110. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projection of points in crystals, replicas; scanning electron microscopy; emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course CM211.

CM212. Cultural Materials Science II: In Vitro Microscopy and Microanalysis. (4) (Same as Conservation M210.) Lecture, three hours; laboratory, two hours. Preparation of thin sections of inorganic and organic chemistry. Methodology of sampling and microanalysis of cultural materials for study of their morphology, microstructure, and composition by applying in vitro, optical microscopy and other film methods. Topics include optical and electron microscopy, X-ray and electron spectroscopy, X-ray diffraction, infrared spectroscopy, chemical spot tests, and chromatography. Hands-on experience through object-based problem-solving approach. Practical skills acquired on sampling and sample preparation methods of cultural materials and on analysis of microsamples using basic instruments for characterization of organic and inorganic materials. May be concurrently scheduled with course C112. Letter grading.

M213. Deterioration Process and Conservation of Archaeological and Cultural Materials: In Situ and Ex Situ. (4) (Same as Conservation M236.) Seminar, two hours; laboratory, three hours. Requisites: courses M215 (or Art History M203F or Conservation M250) and M216 (or Conservation M216). Conservation processes (both natural and man-made) in situ and ex situ of archaeological and cultural decorative surfaces (mainly rock art, wall paintings, polychrome sculpture, decorative architectural elements, and mosaics) and on solutions to mitigate, pacify, or arrest decay mechanisms based on preventive, passive, and remedial solutions (letter based on minimum intervention). Sessions include holistic approaches for preservation of archaeological sites; hydrology of sites; origin and damaging effects of salts; biodegradation; chemical and mechanical weathering; earthquakes, frost, flooding, and vandalism; structural repairs, grouting, cleaning, and desalination; sheltering and limited accessibility; fixing, consolidation, and protective surface treatments. Letter grading.


M216. Science of Conservation Materials and Methods I. (4) (Same as Conservation M216.) Seminar, one hour; laboratory, three hours. Recommended requisite: course 104. Introduction to physical, chemical, and mechanical properties of synthetic and natural materials employed for preservation of archaeological and cultural materials and their aging characteristics. Science and application methods of traditional organic and inorganic systems; modern materials and technology based on biomimetic processes and nanostructured materials. Letter grading.

221. Science of Electronic Materials. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Study of major physical and chemical principles affecting properties and performance of semiconductor materials. Topics include bonding, carrier statistics, band-gap engineering, optical and transport properties, materials systems, and characterization. Letter grading.

222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 130, 131. Thermodynamics and kinetics that affect semiconductor growth and device processing. Particular emphasis on fundamentals of growth (bulk and epitaxial), heteropetry, implantation, oxidation. Letter grading.

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 device applications. Information on vapor deposition, interfacial properties, stress and strain, electromigration, phase change and kinetics, reliabil- ity. Letter grading.


225. Research Group Seminars: Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Discussion of current literature in field of or research of faculty and students. May be repeated for credit with approval.
224. Deposition Technologies and Their Applications. (4) Lecture, four hours; outside study, eight hours. Examination of physics behind majority of modern thin film deposition technologies based on vapor phase transport. Basic vacuum technology and gas kinetics. Deposition methods used in high-tech applications. Theory and experimental details of physical vapor deposition (PVD), chemical vapor deposition (CVD), plasma-enhanced chemical vapor deposition processes. Letter grading.


226. SI-CMOS Technology: Selected Topics in Materials Science, (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electrical Engineering 221B. Requirements: courses 110A, 110C, 121, 222. Selected topics in materials science from modern SI-CMOS technology, including technological challenges in high k/metal gate stacks, strained Si FETs, SOI and three-dimensional FETs, source/drain engineering including transient-enhanced diffusion, nonvolatile memory, and metalization for ohmic contacts. Letter grading.

CM233. Ancient and Historic Metals: Technology, Microstructure, and Corrosion. (4) (Same as Conservation M246.) Lecture, two hours; laboratory, 90 minutes. Designed for graduate conservation and materials science students. Processes of extraction, alloying, working, metallography, corrosion, and microstructure of ancient and historic metals. Extensive laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Practical instruction in metallographic microscopy. Exploration of phase and stability diagrams of common alloying systems and environments and analytical techniques appropriate for examination and characterization of metallic artifacts. Concurrently scheduled with course C133. Letter grading.

243A. Fracture of Structural Materials. (4) Lecture, four hours; laboratory, two hours; outside study, four hours. Requirements: course 13A. Engineering and scientific aspects of crack nucleation, slow crack growth, and unstable fracture. Fracture mechanics, dislocation models, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; outside study, eight hours. Requirements: course 143A. Elastic and plastic behavior of crystals, geometry, mechanics, and interaction of dislocations, mechanisms of yielding, work hardening, and other strengthening. Letter grading.


248. Materials and Physics of Solar Cells. (4) Lecture, four hours. Comprehensive introduction to materials and physics of photovoltaic cell, covering basic physics of semiconductors in photonic devices, physical models of cell operation, characteristics and design of common types of solar cells, and approaches to increasing solar cell efficiency. Recent progress in high efficiency solar cells, including tandem solar cells, and multiple junction solar cells provided to increase student knowledge. Tour of research laboratory included. Letter grading.


252. Organic Polymer Electronic Materials. (4) Lecture, four hours; outside study, eight hours. Preparation: knowledge of introductory organic chemistry and polymer science. Introduction to organic electronic materials with emphasis on materials, chemistry, and processing. Topics include conjugated polymers, heavily doped, highly conducting polymers; application of various electrical, optical, and electrochemical devices. Synthesis of semiconductor polymers for organic light-emitting diodes, solar cells, thin-film transistors. Introduction to emerging areas of research and analysis. Letter grading.

270. Computer Simulations of Materials. (4) Lecture, four hours; outside study, eight hours. Introduction to modern methods of computational modeling in materials science. Topics include basic statistical mechanics, classical molecular dynamics, and Monte Carlo methods, with emphasis on understanding basic physical ideas and learning to design, run, and analyze computer simulations of materials. Use of examples from the literature to show how these methods can be used to study interesting phenomena in materials science. Hands-on computer experiments. Letter grading.


272. Theory of Nanomaterials. (4) Lecture, four hours; outside study, eight hours. Strongly recommended requisite: course 271. Introduction to properties and applications of nanoscale materials, with emphasis on understanding basic principles that distinguish nanostructures (with feature size below 100 nm) from their traditional bulk counterparts. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum mechanics and thermodynamics. Topics include structure and electronic properties of quantum dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanostructured metamaterials, metalloelectrics, spin-based electronics, and proposed realizations of quantum computing. Discussion of current and future directions of this rapidly growing field using examples from modern scientific literature. Letter grading.

CM280. Introduction to Biomaterials. (4) (Same as Bioengineering CM278.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requirements: course 104, or Chemistry 20A, 20B, and 20L. Emerging materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

282. Exploration of Advanced Topics in Materials Science and Engineering. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Researchers from leading research institutions around world deliver lectures on advanced research topics in materials science and engineering. Student groups present summary previews of topics prior to lecture. Class discussions follow each presentation. May be repeated for credit. S/U grading.

296. Seminar: Advanced Topics in Materials Science and Engineering. (2) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in preparation for final research paper or 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 teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 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. 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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Ker-Chau Li, Ph.D.
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Ciprian Manolescu, Ph.D.
Donald A. Martin, Ph.D.
Alexander Sergeev Merkurjev, Ph.D.
Itay Neeman, Ph.D.
William I. Newman, Ph.D.
Stanley J. Osher, Ph.D.
Rafael Ostrovsky, Ph.D.
Igor Pak, Ph.D.
Peter Petersen, Ph.D.
Sorin T. Popa, Ph.D.
James V. Rafton, Jr., Ph.D.
Bruce L. Rothschild, Ph.D.
Raphael A. Rouquier, Ph.D.
Yehuda Shalom, Ph.D.
Dimitri Y. Shlyakhtenko, Ph.D.
Benjamin Sudakov, Ph.D. (David Saxon Presidential Professor of Mathematics)
Terence C. Tao, Ph.D. (James and Carol Collins Professor in College of Letters and Science)
Christoph M. Thiele, Ph.D.
Lieuven Vandenberghe, Ph.D.
V.S. Varadarajan, Ph.D.
Luminita A. Vese, Ph.D.
William R. Zame, Ph.D.

Professors Emeriti
Donald G. Babbitt, Ph.D.
Kirby A. Baker, Ph.D.
Robert J. Blattner, Ph.D.
David G. Cantor, Ph.D.
Lennart Carleson, Ph.D.
Tony F. Chan, Ph.D.
C.C. Chang, Ph.D.
Philip C. Curtis, Jr., Ph.D.

Robert D. Edwards, Ph.D.
Hector O. Fattorini, Ph.D.
Thomas S. Ferguson, Ph.D.
Theodore W. Gamelin, Ph.D.
Mark L. Green, Ph.D.
Nathanial Grossman, Ph.D.
Alfred W. Hales, Ph.D.
Robert J. Jennrich, Ph.D.
Paul B. Johnson, Ph.D.
Heinz-Otto Kreiss, Ph.D.
Thomas M. Liggett, Ph.D.
Ronald J. Miech, Ph.D.
Yannis N. Moschovakis, Ph.D.
Sidney C. Port, Ph.D.
Paul H. Roberts, Ph.D., D.Sc.
Leo R. Rario, Ph.D.
Murray S. Schacher, Ph.D.
Roberto H. Schonmann, Ph.D.
Robert Steinberg, Ph.D.
Masamichi Takesaki, Ph.D.
James H. White, Ph.D.
N. Donald Ylaivaiker, Ph.D.

Associate Professors
Rodolfo De Sapoio, Ph.D.
Christian Haesemeyer, Ph.D.
Inwon C. Kim, Ph.D.
Gang Liu, Ph.D.
Geofflrey Mess, Ph.D.
Joseph M. Teran, Ph.D.
Monica Vigan, Ph.D.

Assistant Professors
Marcus L. Rooper, Ph.D.
Sebastien Roch, Ph.D.

Lecturers
Heather J. Calahan, M.A.
Susie Hakansson, Ph.D.

Adjunct Assistant Professors
Loong F. Kong, M.S.
Olga V. Radko, Ph.D.

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
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 the several times during the academic year. For Student Orientation program. It is also given several times, including all sessions of the New Student Orientation program. The examination may be taken at any one of the following groups: (1) 3A, 31A; (2) 3B, 31B, 31E; (3) 110A, 117; (4) 174A, 174E.

Credit Limitations
Credit is given for at most one course in each of the following groups: (1) 3A, 31A; (2) 3B, 31B, 31E; (3) 110A, 117; (4) 174A, 174E.

Courses from one of the following statistics sequences may be applied toward any mathematics major: (1) Statistics 100A (or Mathematics 170A), 100B, 100C or (2) former Statistics 110A, 110B.

Mathematics 2 is not open for credit to students with credit for any course from Mathematics 110A through 119.

Mathematics 132 is not open for credit to students with credit for Physics 132.

Mathematics 151A is not open for credit to students with credit for Electrical Engineering 103.

Mathematics 170A and Statistics 100A are not open for credit to students with credit for Electrical Engineering 131A.

Mathematics 174A and 174E are not open for credit to students with credit for Economics 141.

For lower division mathematics courses, students may not take or repeat a course for credit if it is a requisite for a more advanced lower division course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 31B, they must do so before completing course 32B; if students wish to repeat Mathematics 3B or 31B or 32A, they must do so before completing course 33A).

For upper division mathematics courses, students may not take or repeat a lower sequence course for credit if it is a part of a sequence for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 131A, they must do so before completing course 131B or 131BH).

Students may not receive credit for both a course and the honors version of that course (e.g., they may not receive credit for both Mathematics 131A and 131AH).
Mathematics Upper Division Courses
Mathematics 115A, 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 Mathematics for Teaching. The department also participates in the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics major, and in the Mathematics/Atmospheric and Oceanic Sciences Interdepartmental Program, which offers a Mathematics/Atmospheric and Oceanic Sciences 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 Mathematics for Teaching 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, mathematics/history of science, and medical and life sciences.

Each course taken to fulfill any of the requirements for any of the mathematics majors must be taken for a letter grade.

The Mathematics for Teaching major is a designated capstone major. In their senior year students complete a year-long course sequence that culminates in a model lesson presentation, paper, and portfolio. Through their capstone work, students demonstrate their familiarity with research and current issues in mathematics education, as well as their capacities to problem solve; reason quantitatively, geometrically, and algebraically; construct viable arguments; critique others’ reasoning; and use tools strategically.

Mathematics B.S.
Mathematics Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics premajors at the time they apply for admission are automatically admitted to the premajors.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

The mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

Freshman Students
Students must petition to declare the Mathematics major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students
Transfer applicants to the Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one calculus-based physics (mechanics) course, one C++ programming course, and two courses from general chemistry for majors, economics, symbolic logic, and calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissions.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major
Required: Mathematics 110A, 110B, 115A, 120A, 131A, 131B, 132, and at least five elective courses from 106 through 199 and Statistics 100A through 102C. Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

Applied Mathematics B.S.
Applied Mathematics Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Applied Mathematics premajors at the time they apply for admission are automatically admitted to the premajors.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Applied Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, Program in Computing 10A, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

Freshman Students
Students must petition to declare the Applied Mathematics major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students
Transfer applicants to the Applied Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, two calculus-based physics courses, one C++ programming
course, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major

Required: Mathematics 115A, 131A, either 131B or 132, 142; two two-term sequences from two of the following categories: numerical analysis — courses 151A and 151B, probability and statistics — courses 170A and 170B, or Statistics 100A and 100B, differential equations — courses 134 and 135; four courses from 106 through 199 and Statistics 100A through 102C (appropriate courses from other departments may be substituted for some of the additional courses provided departmental consent is given before such courses are taken). Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

Mathematics of Computation B.S.

Mathematics of Computation Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics of Computation premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics/Applied Science premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A, 1B, Program in Computing 10A, 10B, 10C, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course. Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

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, mathematics/history of science plan, or medical and life sciences plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric and oceanic sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics. Students interested in designing an individual program should meet with the undergraduate adviser, 6356 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.

Mathematics/Applied Science Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Applied Science premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics/Applied Science premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Additional preparation, varying with the individual program, may be required. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

Freshman Students

Students must petition to declare the Mathematics of Computation major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students

Transfer applicants to the Mathematics of Computation major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major

Required: Eleven Mathematics Department courses, including Mathematics 115A, 131A, 131B or 132, 151A, 151B, and six courses from 106 through 199 and Statistics 100A through 101C; three upper division computer science courses (12 units). Each course must be taken for a letter grade. The 14 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

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, mathematics/history of science plan, or medical and life sciences plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric and oceanic sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics. Students interested in designing an individual program should meet with the undergraduate adviser, 6356 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.
After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major

Required: Fourteen courses, seven in the Mathematics Department selected from Mathematics 106 through 199 and seven upper division courses in a related field selected from one or two other departments. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the seven courses outside mathematics.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

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

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Economics 1, 2, 11, Program in Computing 10A. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A). The economics preparation courses must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or of any economics or mathematics preparation course more than once results in automatic dismissal from the major.

The Major

Required: Seven mathematics courses, including Mathematics 115A, 131A, 170A, 170B, 172A, 172B, 172C; four outside courses, including Mathematics 174A (or 174E or Economics 141 or Statistics C183), Statistics 100B, 100C, and one course from Economics 101 through 199B. Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the four courses from the Economics and Statistics Departments.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

Mathematics/History of Science Plan

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, and three of the courses 20B, 20L, 30A, 30AL, 110A through 199; and a grade of C or better in each course.

The mathematics sequenced courses are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

Medical and Life Sciences Plan

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, Life Sciences 1, 2, 3, 4, Physics 1A, 1B, Program in Computing 10A. Each course must be taken for a letter grade. The mathematics sequenced courses are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C– or better in each course.

The mathematics preparation courses are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major

Required: Seven mathematics courses, including Mathematics 115A, 131A, 134, 151A, 170A, 170B, and one course from 110A through 199 and Statistics 100B through 101C; six outside courses, including Neuroscience M101A, M101B, and M101C, and three courses from Biomedical 110, 160, Biostatistics 100A, Chemistry and Biochemistry CM160A, Computer Science CM186, Ecology and Evolutionary Biology C119, 133, 135, Physiological Science 100, 135, and any additional upper division course from these fields with consent of the administering department and the Mathematics Department. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

Mathematics for Teaching B.S.

Capstone Major

The Mathematics for Teaching major is designed primarily for students planning to teach mathematics at the high school level. It provides exposure to a broad range of mathematical topics, especially those appropriate for the prospective teacher. Students planning to pursue graduate studies in mathematics or related fields are encouraged to enter the Mathematics, Applied Mathematics, or Mathematics of Computation major.

Mathematics for Teaching Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics for Teaching premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A or 6A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Physics 1B, 1C, 6B, 6C, Program in Computing 10B through 97. Each course must be taken for a letter grade. The mathematics sequenced courses are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.
quenced course more than once results in automatic dismissal from the major.

Freshman Students
Students must petition to declare the Mathematics for Teaching major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students
Transfer applicants to the Mathematics for Teaching major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, one C++ programming course, and three courses from calculus-based physics, general chemistry for majors, and computing.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major
Required: Mathematics 106, 110A or 117, 115A, 120A or 123, 131A, 170A or Statistics 100A, Statistics 100B, one course from Mathematics 110B through 191H or Statistics 100C, one course from Mathematics 131B through 136, one course from 142 through 167, and a capstone series in the senior year (courses 105A, 105B, 105C). Each course must be taken for a letter grade. The 13 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

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 Mathematics for Teaching may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 20A, 20B, 30, 40A, 60, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 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 California Subject Examination for Teachers (CSET). They 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 completed all of the lower division minor courses with grades of C or better (an overall grade-point average of 2.0 or better) and at least one upper division mathematics course.

Required Lower Division Courses (12 units):
Mathematics 32A, 33A, 33B.

Required Upper Division Courses (20 units):
At least five courses (20 units) selected from Mathematics 106 through 199.

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

Each minor course must be taken for a letter grade. Students must complete all lower division courses with grades of C or better. Upper division courses must have an overall grade-point average of 2.0 or better that is calculated separately from the lower division courses. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Mathematics.

Mathematics
Lower Division Courses
1. Precalculus. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Prerequisite: successful completion of Mathematics Diagnostic Test. Function concept, linear and polynomial functions and their graphs, applications to optimization. Inverse, exponential, and logarithmic functions. Trigonometric functions. P/NP or letter grading.
2. Finite Mathematics. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Finite mathematics consisting of matrices, parallel and perpendicular lines, linear equations and inequalities in one and two variables, introduction to matrices, Gaussian-Jordan method, systems of linear equations, probability, and Markov chains. P/NP or letter grading.
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). Prerequisite: successful completion of Mathematics Diagnostic Test (score of 36 or better) or course 1 with grade of C– or better. Not open for credit to students with credit in another calculus sequence. Techniques and applications of differential calculus. P/NP or letter grading.
4. Probability for Sciences Students. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 3A with grade of C– or better. Not open for credit to students with credit for course 31B. Techniques and applications of integral calculus, introduction to differential equations and multivariable calculus. P/NP or letter grading.
5. Differential and Integral Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: at least three and one-half years of high school mathematics (including some coordinate geometry and trigonometry). Prerequisite: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Differential calculus and applications; introduction to integration. P/NP or letter grading.
31AX. Workshop in Differential Calculus. (1) Discussion, one hour. Corequisite: course 31A. Supplementary techniques and applications for solving problems in differential calculus. Limits of investigation set by individual instructor. P/NP grading.

31B. Integration and Infinite Series. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31A. Workshop in Integral Calculus. Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of B or better. Honors course parallel to course 31B, P/NP or letter grading.

31BH. Integration and Infinite Series (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31A. Honorably open for credit to students with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31A. Workshop in Integral Calculus. Lecture, two and one-half hours. Requisites: courses 31A and 31B, with grades of C– or better. Introduction for prospective mathematics teachers to field of secondary education and teaching and learning of mathematics in middle school classrooms. P/NP grading.

72SL. Classroom Practices in Middle School Mathematics. (2-2-2) Seminar, three hours; fieldwork, two and one-half hours. Enforced requisite: course 33A. Enforced requisite for students with credit for courses 31B, 32A, or 32B. mandatory techniques and applications for solving problems in integral calculus. Limits of investigation set by individual instructor. P/NP grading.

31E. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31B. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of B or better. Not open for credit to students with credit for course 3B, 3C, or 31A with grade of C– or better. Honors course parallel to course 31B. P/NP or letter grading.

310A. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, three hours. Requisites: courses 110A (or 117), 120A (or 127), 131A, and 131AH-131BH. Letter grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, three hours. Requisites: courses 110A, 110B (or 117), 120A (or 127), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key polynomial, rational, and transcendental functions and related equations in secondary school; professional standards and current research for teaching secondary school mathematics. Letter grading.

105C. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, three hours. Requisites: courses 105A, 105B, 110A (or 117), 120A (or 127), and 131A, with grades of C– or better. Letter grading.

106. History of Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A. Roots of modern mathematics in ancient Babylonia and Greece, including place value number systems and proof. Development of algebra through Middle Ages to Fermat and Abel, invention of analytic geometry and calculus. Selected topics. P/NP or letter grading.

Algebra, Number Theory, and Logic

110A-110B. Algebra. (4-4) Lecture, three hours; discussion, one hour. P/NP or letter grading. 110A. Requisite: course 115A. Not open for credit to students with credit for course 115F. Rings of integers, integral domains, fields, polynomial domains, unique factorization. 110B. Requisite: course 110A or 117. Groups, structure of finite groups.

110AH-110BH. Algebra (Honors). (4-4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B. 111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A or 117, 115A. Divisibility, congruences, Diophantine analysis, selected topics in theory of primes, algebraic number theory, Diophantine equations.

114C. Computability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A. Theorems of Gödel, Rice, and Lowenhielm/Skolem theorems. P/NP or letter grading.

114L. Mathematical Logic. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A. Proof theory, formal systems, recursive functions, model theory. P/NP or letter grading.
M114S. Introduction to Set Theory. (4) (Same as Philosophy M134.) Lecture, three hours; discussion, one hour. Restrictions: enrollment limited to 1110 or 131A or Philosophy 135. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

115A-115B. Linear Algebra. (5-4) P/NP or letter grading. 115A. Lecture, three hours; discussion, two hours. Requisite: course 33A. Techniques of proof, abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigen- vector theory. 115B. Lecture, three hours; discussion, one hour. Requisite: course 115A. Linear transformations, conjugate spaces, duality; theory of a single linear transformation, Jordan normal form; bilinear forms, quadratic forms; Euclidean and unitary spaces, symmetric skew and orthogonal linear transformations, polar decomposition.

115AH. Linear Algebra (Honors). (5) Lecture, three hours; discussion, two hours. Requisite: course 33A with grade of B or better. Honors course parallel to course 115A. P/NP or letter grading.

115AX-115BX. Workshops in Linear Algebra. (1-1) Discussion, one hour. Corequisite for course 115AX: course 115A. Suplementary techniques and applications for solving problems in linear algebra. Limits of investigation set by individual instructor. P/NP grading.

115HX. Workshop in Linear Algebra (Honors). (1) Discussion, one hour. Corequisite: course 115AH. Honors course parallel to course 115AX. P/NP grading.

116. Mathematical Cryptology. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for Program in Computing 130. Introduction to mathematical cryptology using methods of number theory, algebra, probability. Topics include symmetric and public-key cryptosystems, one-way functions, signatures, key exchange, groups, primes, pseudoprimes, primality tests, quadratic reciprocity, factoring, rho method, RSA, discrete logs. P/NP or letter grading.

117. Algebra for Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 110A. Integers, congruences, fields, applications of finite fields; polynomials; permutations, introduction to groups.

Geometry and Topology

120A-120B. Differential Geometry. (4-4) Lecture, three hours; discussion, one hour. Requisite: courses 32B, 33B, 115A, 131A. Course 120A is requisite to 120B. Curves in 3-space, Frenet formulas, surfaces in 3-space, normal curvature, Gaussian curvature, congruence of curves and surfaces, intrinsic geometry of 3-space, normal curvature, Gaussian curvature, congruence of curves and surfaces, intrinsic geometry of 3-space, normal curvature, Gaussian curvature, and Lagrange equations; calculus of variations, fixed points, limit cycles, and stability analysis. bifurcations and normal forms. Elementary geometrical and topological results. Applications to problems in biology, chemistry, physics, and other fields. P/NP or letter grading.

121. Introduction to Topology. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Metric and topological spaces, completeness, compactness, connectedness, functions, continuity, homeomorphisms, topological properties.

123. Foundations of Geometry. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Axioms and models, Euclidean geometry, Hilbert axioms, neutral (absolute) geometry, hyperbolic geometry, Poincaré model, independence of parallel postulate.

Analysis

131A-131B. Analysis. (4-4) Lecture, three hours; discussion, one hour. P/NP or letter grading. 131A. Requisite: courses 32B, 33B. Recommended: course 115A. Rigorous introduction to foundations of real analysis; real numbers, point set topology in Euclidean space, functions, continuity. 131B. Requisites: courses 33B, 115A, 131A. Derivatives, Riemann integral, sequences and series of functions, power series, Fourier series.

131AH-131BH. Analysis (Honors). (4-4) Lecture, three hours; discussion, one hour. Requisites for course 131AH: courses 32B and 33B, with grades of B or better. Recommended: course 115A. Honors sequence parallel to courses 131A, 131B. P/NP or letter grading.

131A. Analysis Techniques. (1) Lecture, one hour. Requisite: course 33B. Corequisite: course 131A. Review of elementary techniques of mathematics and their applications to topics in analysis, such as geometric and algebraic constructions, least upper bound axiom, etc. P/NP grading.

131C. Topics in Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B. Advanced topics in analysis, such as Lebesgue integral, integration on manifolds, harmonic analysis. Content varies from year to year. May be repeated for credit by petition.

132. Complex Analysis for Applications. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to basic formulas and calculation procedures of complex analysis of one variable relevant to applications. Topics include Cauchy-Riemann equations, Cauchy integral formula, power series expansion, contour integrals, residue calculus.


136. Partial Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B. Linear partial differential equations, boundary and initial value problems; wave equation, heat equation, and Laplace equation; separation of variables, eigenfunction expansions; selected topics, as method of characteristics for nonlinear equations.

Applied Mathematics

142. Mathematical Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to fundamental principles and spirit of applied mathematics. Emphasis on manner in which mathematics is constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

143. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Foundations of Newtonian mechanics, kinematics and dynamics of a rigid body, variational principles and Lagrange equations; calculus of variations, variational methods; related topics in applied mathematics.

146. Methods of Applied Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Integral equations, Green's function, and calculus of variations. Selected applications from control theory, optics, dynamical systems, and other engineering problems.


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) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Statistics 100A. Probability distributions, random variables and vectors, expectation. P/NP or letter grading.
170B. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 170A or Statistics 100A. Convergence in distribution, normal approximation, laws of large numbers, Poisson processes, random walks. P/NP or letter grading.


172A. Introduction to Financial Mathematics. (4) Lecture, four hours. Requisites: courses 32B, 33B. Designed to provide understanding of fundamental concepts of financial mathematics and how those concepts are applied in calculating present and accumulated values from various streams of cash flows as basis for future use in reserves, valuation, pricing asset/liability management, investment income, capital budgeting, and valuing contingent cash flows. Letter grading.

172B. Actuarial Models I. (4) Lecture, four hours. Requisites: courses 170A and 170B (or Statistics 100A and 100B). 172A. Designed to provide understanding of theoretical basis of certain actuarial models and application of those models to insurance, pensions, and other financial risks. Letter grading.

172C. Actuarial Models II. (4) Lecture, four hours. Enforced requisite: course 172B. Theoretical basis of certain actuarial models and application to insurance, pensions, and other financial risks. Letter grading.

173A. Casualty Loss Models I. (4) Lecture, four hours. Enforced requisites: courses 170A and 170B (or Statistics 100A and 100B), 172A. Designed to provide understanding of various casualty loss models. Coverage of steps involved in modeling process and how to carry out these steps in solving business problems. Letter grading.

173B. Casualty Loss Models II. (4) Lecture, four hours. Enforced requisite: course 173A. Construction of probability models and introduction to credibility theory that provides tools to utilize collected information, such as past loss information, to predict future outcomes. Use of simulation to model future events. Letter grading.

174A. Financial Economics for Actuarial Students. (4) Lecture, four hours. Enforced requisites: courses 170A and 170B (or Statistics 100A and 100B), 172A. Not open for credit to students with credit for course 174E, Economics 141, or Statistics C183/C283. Specifically designed to prepare students in actuarial science program to take Society of Actuaries Exam for Financial Economics (MFE) examination. Introduction to basic concepts of financial economics, including interest rate models, rational valuation of derivative securities, and risk management. Letter grading.


Discrete Mathematics

180. Combinatorics. (4) Lecture, three hours; discussion, one hour. Requisite: course 32B or 33B. 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 theorems. P/NP or letter grading.

182. Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 3C or 32A. Not open for credit to students with credit for Computer Science 180. Graphs, greedy algorithms, divide and conquer algorithms, dynamic programming, network flow. Emphasis on designing efficient algorithms useful in diverse areas such as bioinformatics and allocation of resources. P/NP or letter grading.

184. Topics in Combinatorics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 180. Introduction to combinatorics, including several current topics selected to illustrate various techniques to obtain combinatorial results. Gems of modern combinatorics to be showcased. May be repeated for credit. P/NP or letter grading.

Special Studies

190A-190O. Seminars: Current Literature. (1-6 each) Seminar, one hour. Designed for undergraduate students. Readings and presentations of papers in current areas. May not be repeated for credit. P/NP or letter grading.


191. Variable Topics Research Seminars: Mathematics. (4) Seminar, three hours. Variable topics research seminar in mathematics that covers material not covered in regular mathematics upper division curriculum. Reading, discussion, and development of culminating project. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

191H. Honors Research Seminars: Mathematics. (4) Seminar, three hours. Participating seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

195. Community Internships in Mathematics Education. (4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Internship to be supervised by Center for Community Learning and Mathematics Department. Students meet on regular basis with instructor; provide periodic reports of their experience, have assigned readings on mathematics education, and complete final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Mathematics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. At discretion of chair and subject to availability of staff, individual intensive study of topics suitable for undergraduate course credit but not specifically offered as separate coursework. Meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied toward upper division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culminating report required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied toward upper division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

Graduate Courses

Teacher Preparation

201A-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. Applications of 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.

202A-202B. Mathematical Models and Applications. (4-4) Preparation: bachelor’s degree in mathematics. Designed for mathematics/education program students. Development of mathematical theories describing various empirical situations. Basic characterizing postulates; development of a logical structure of theorems. Modern topics such as operations research, linear programming, game theory, learning models, models in social and life sciences. May not be applied toward M.A. degree requirements.

203. Master’s Linear Algebra. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of pure and applied linear algebra over fields. Applications to contemporary research. Preparation for linear algebra portion of UCLA Mathematics Basic Examination that is required of M.A. and Ph.D. students. S/U or letter grading.

204. Master’s Algebra. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of analysis. Applications to contemporary research. Preparation for analysis portion of UCLA Mathematics Basic Examination that is required of M.A. and Ph.D. students. S/U or letter grading.

Number Theory

205A-205B-205C. Number Theory. (4-4-4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including ideal theory, valuations, local fields, cyclotomic fields. Introduction to class-field theory, analytic number theory, L-functions and class number formulas, and modular forms. S/U or letter grading.


207A-207B-207C. Topics in Number Theory. (4-4-4) Lecture, three hours. Adelic analysis on GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Arithmetic geometry, especially of modular curves. S/U or letter grading.


210A. Cryptography. (4) (Same as Computer Science M282A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, covering rigorous definitions of cryptography. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permut-
212B. Discrete Mathematics: Algebraic Methods. (4) Lecture, three hours. Basic dimension arguments, spaces of polynomials and tensor product methods, eigenvalues of graphs and graph coloring, combina- 
torial Nullstellensatz and Chevalley/Warning theorem. Counterexample to Borsuk conjecture, chromatic number of unit distance graph of Euclidean space, ex- plicit construction of Ramsey graphs, other topics. S/ U or letter grading.

218C. Topics in Discrete Mathematics. (4) Lecture, three hours. Examination of variety of methods, approaches, and techniques that were developed in the last 30 years in discrete mathematics. Topics may in- clude extremal problems for graphs and set systems, Ramsey theory, additive number theory combinatorial geometry, topological tangles, entropy and other tools from information theory, discrete harmonic analysis and its applications to combinator- ics and theoretical computer science. Topics vary from year to year. May be repeated for credit with con- sent of instructor. S/U or letter grading.

Logic and Foundations

220A-220B-220C. Mathematical Logic. (4-4-4) Lecture, three hours. Basic techniques of mathematical logic, models of arithmetic, completeness theorem, Dedekind rings, modules, projective mod- ules 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 and primitive rings, rings and algebras with minimum condition.

212. Homological Algebra. (4) Requisite: course 210A. Modules over a ring, homomorphisms and ten- sor products of modules, functors and derived func- tors, homological dimension of rings and modules.

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 pro- jective spaces; irreducibility, dimension, singular and smooth points. More advanced topics, such as sheaves and their cohomology, or introduction to theory of Riemann surfaces, as time permits.


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, Abee- lian varieties, invariant theory, Hodge theory, or geom- etry over finite fields. May be repeated for credit by petition.


230. Partial Differential Equations on Manifolds. (4) Lecture, three hours. Requisites: courses 226A, 251A. Topics may include Laplacian operator on a Ri-emannian manifold, eigenvalues, Aitahi/Singer index theorem, isoperimetric inequalities, estimates for harmonic functions, function theory on manifolds, Green's function, heat equation, minimal hypersurfac- es, prescribed curvature equations, harmonic maps, Yamabe/Mills equation, Monge-Ampere equation.

234. Topics in Differential Geometry. (4) Lecture, three hours. Requisites: courses 226A, 226B. Com- plex and Kahler geometry. Hodge theory, homoge- neous manifolds and symmetric spaces, finiteness and convergence theorems for Riemannian manifolds, almost flat manifolds, closed geodesics, mani- folds of positive scalar curvature, manifolds of con- stant curvature. Topics vary from year to year. May be repeated for credit by petition.

235. Topics in Manifold Theory. (4) Lecture, three hours. Requisites: courses 225A, 225B. Emphasis on low-dimensional manifolds. Structure and classifica- tion of manifolds, automorphisms of manifolds, sub- manifolds (e.g., knots and links). 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, char- acteristic classes, generalized homology and co- homology theories. Topics vary from year to year. May be repeated for credit by petition.
238A-238B. Dynamical Systems. (4)

238A. Methods of Set Theory. (4)
Three hours. Requisites: courses 110A, 110B, 121, 131A, 131B.

238B. Dynamical Systems. (4-4)
Three hours. Requisites: courses 121, 131A, 131B.

Analysis and Differential Equations

240. Methods of Set Theory. (4)
Lecture, three hours. Requisites: courses 110A, 110B, 121, 131A, 131B.

246A-246B-246C. Real Analysis. (4-4-4)
Three hours. Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C.

250A. Ordinary Differential Equations. (4)
Requisites: course 246A. Basic theory of ordinary differential equations.

250B. Nonlinear Ordinary Differential Equations. (4)
Requisites: course 246B. Asymptotic behavior of nonlinear systems.

251A. Introductory Partial Differential Equations. (4)
Requisites: courses 250A, 250B. Selected topics, such as spectral theory or ordinary differential equations.

252A-252B. Topics in Complex Analysis. (4-4)
Lecture, three hours. Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C.

253A-253B. Several Complex Variables. (4-4)
Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C.

254A-254B. Topics in Real Analysis. (4-4)
Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C.

255A. Functional Analysis. (4)
Requisites: courses 245A and 245B, or 265A and 265B, and 246A.

255B-255C. Topics in Functional Analysis. (4-4)
Requisite: course 255A. Topics include Banach algebras, operators, on Banach spaces.

256A. Topological Groups and Their Representations. (4-4)
Lecture, three hours. Requisites: course 250A. Topological groups and their basic properties.

256B-256C. Several Complex Variables. (4-4)
Requisites: courses 255A, 255B, and 255C.

257A. Functional Analysis for Applied Mathematics and Engineering. (4)
Lecture, three hours. De requisites: courses 255A, 255B, 255C, 266A.

258A. Functional Analysis. (4)
Requisites: courses 255A, 255B, 255C.

259A-259B. Operator Algebras in Hilbert Space. (4)
Requisites: courses 255A, 255B, 255C.

260. Introduction to Applied Mathematics. (4)
Requisite: course 142. Construction, analysis, and interpretation of mathematical models of problems which arise outside of mathematics.

261. Game Theory. (4)
Lecture, three hours. Requisites: courses 250A, 250B, 250C, 266A, 266B, 266C.

262. Applied Complex Analysis. (4)
Requisite: course 246A. Topics include contour integration and conformal mapping.

264. Applied Complex Analysis. (4)
Requisite: course 246A. Topics include contour integration and conformal mapping.

266A. Applied Differential Equations. (4)
Requisites: courses 266A, 266B, 266C. Advanced topics in linear and nonlinear partial differential equations.

266B. Applied Partial Differential Equations. (4)
Requisites: courses 266A, 266B, 266C. Advanced topics in linear and nonlinear partial differential equations.


Probability and Statistics

285A-285N. Seminars. (4 each) Seminar, three hours. Note: more than two 285 courses may be applied toward M.A. degree requirements except by prior consent of graduate 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.

285L. Dynamical Systems.

285N. Combinatorics.

285P. Representation Theory.


290A. History and Development of Mathematics.

290B. Number Theory.

290C. Algebra.

290D. Logic.

290E. Geometry.

290F. Topology.

290G. Analysis.

290H. Differential Equations.

290I. Functional Analysis.

290J. Applied Mathematics.

290K. Probability.

290L. Dynamical Systems.

290M. Mathematics.

290N. Combinatorics.

290O. Cryptography.

296A-296N. Participating Seminars. (1 each) Seminar, two hours. 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.

296L. Dynamical Systems.

296M. Mathematics.

296N. Combinatorics.

2970A-370N. Teaching of Mathematics. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 33B. Limited to senior Mathematics Department majors. Course 370A is requisite to 370B. Topics in geometry, algebra, number theory, discrete mathematics, and functions presented from a problem-solving and student participation point of view, with emphasis on historical context and appropriate role of proof. S/U or letter grading.

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

495. Teaching College Mathematics. (2) Seminar, one hour; two-day intensive training at beginning of Fall Quarter. Required of all new teaching assistants and new Ph.D. students under course. Teaching assistants designed to deal with problems and techniques of teaching college mathematics. S/U grading.

495B. Technology and Teaching. (2 to 4) Seminar, two hours; laboratory, one hour (when scheduled). Requisite: course 495. Focus on undergraduate mathematics instruction. Web-based electronic communication, using technology for class organization, use of presentation software packages, and creation of electronic teaching portfolio. Provides mechanics of technology and forum for evaluation and comparison of technology in undergraduate mathematics teaching. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA department chair and graduate dean, and host campus instructor, department chair, and graduate dean. Use of record enrollment of UCL 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. Supervised individual reading and study on project approved by a faculty member, which may be preparation for M.A. examination. May be repeated for credit, but only two 596 courses (8 units) may be applied toward M.A. degree unless departmental consent is obtained. S/U or letter grading.


Program in Computing

Lower Division Courses

1. Introduction to Computers and Computing. (4) Lecture, three hours; laboratory, one hour. Not open for credit to students with credit for course 15 or 10A; may not be taken concurrently with course 15 or 10A. Fundamentals of computers and computing; editors, spreadsheets, file manager, machine organization and computer hardware; Internet, software applications. P/NP or letter grading.

15. Software Tools for Information Management. (1) Lecture, one hour; laboratory, two hours. Preparation: some familiarity with computers. Not open for credit to students with credit for course 1; may not be taken concurrently with course 1. May be taken by students with credit for more advanced courses. Introduction to spreadsheets and databases in laboratory setting. P/NP grading.

3. Introduction to Computing for Social Sciences and Humanities. (4) Lecture, three hours; discussion, two hours. No prior programming knowledge required. Not open for credit to students pursuing specialization in Computing or to students with credit for course 20A. Basic principles of object-oriented programming and concepts, with applications from social sciences and humanities. Overview of Java programming language, programming with objects, control structures and functions, classes and object-oriented design, event-driven programming, application to multimedia models. P/NP or letter grading.

10A. Introduction to Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Recommended prerequisite for students with no prior computing experience: course 1. No prior programming experience assumed. Basic principles of programming, using C++; algorithmic, procedural problem solving; program design and development; basic data types, control structures and functions; functional arrays and pointers; introduction to classes for programmer-defined data types. P/NP or letter grading.

10B. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10A. Abstract data types and their implementation using C++ class mechanism; dynamic data structures, including linked lists, stacks, queues, trees, and hash tables; applications; object-oriented programming and software reuse; recursion; algorithms for sorting and searching. P/NP or letter grading.
10C. Advanced Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 10B. More advanced algorithms and data structuring techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.

15. Introduction to Lisp and Symbolic Computation. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 10A. Introduction to symbolic computation using Lisp programming language. Basics: list structures, recursion, function abstraction. Advanced topics: knowledge representation, higher-order functions, problem-solving algorithms and heuristics. P/NP or letter grading.

20A. Principles of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 10A. Not open for credit to students with credit for course 3. Introduction to Java computer language. Class and interface hierarchies; graphics components and graphical user interfaces; streams; multithreading; event and exception handling. Issues in class design and design of interactive Web pages. P/NP or letter grading.

20B. Advanced Aspects of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 20A. Further aspects of use of classes, graphics components, exception handling, multithreading, and multimedia. Additional topics may include networking, servlets, database connectivity, and Java Beans. P/NP or letter grading.

20C. Seminar: Enterprise Computing with Java. (5) Lecture, three hours; discussion, two hours; laboratory, five hours. Enrollment requires: course 20B. Overview of Enterprise Java APIs: remote method invocation, database access with SQL, servlets, and JSP. Issues in implementation of server-side Java applications. Use of Java in conjunction with XML. Individual design and development of interactive Web pages. P/NP or letter grading.

30. Machine Organization and Assembly Language Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 10A. Recommended: course 10B. Description of machine organization and operation. Representation of information, instruction sets and formats, addressing modes, memory organization and management, input/output (I/O) processing and interrupts. P/NP or letter grading.

40A. Introduction to Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 10A. Recommended: course 10B. Introduction to core technologies of Internet, with focus on client-side Web programming. Fundamental protocols, static Web pages, Perl language, Common Gateway Interface, XML. P/NP or letter grading.

40B. Advanced Topics in Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enrollment requires: course 10B. Advanced topics in Web programming, with focus on server-side technologies. P/NP or letter grading.


97. Special Topics in Programming. (1 to 4) Lecture, one to three hours; discussion, zero to one hour. Enrollment requires: course 10A. Variable topics in programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.

Upper Division Courses

110. Parallel and Distributed Computing. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10B or equivalent familiarity with programming in C or C++ language. Introduction to programming of parallel computers. Shared-LI and distributed memory parallel architectures; currently available parallel machines; parallel algorithms and program development; estimation of algorithmic performance; distributed computing; selected advanced topics. P/NP or letter grading.

130. Cryptography. (4) Lecture, three hours; discussion, one hour; laboratory, three hours. Requisites: course 10B, Mathematics 115A. Design and analysis of cryptosystems for confidentiality and authentication. Classical cryptosystems and their security, modern private-key cryptosystems and applications, public-key cryptography and applications; generating prime numbers, factoring integers, discrete logarithms, digital signatures, perfect secrecy. P/NP or letter grading.

187. Advanced Variable Topics in Programming. (4) Lecture, three hours; discussion, one hour. Variable topics in 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) Seminar, three hours. Considered equivalent to Mathematics 285A through 285L 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.


285K. Randomness and Computation.

285L. Computational Statistics.

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

Faculty Committee

Christopher R. Anderson, Ph.D. (Mathematics)
Robert G. Fovell, Ph.D. (Atmospheric and Oceanic Sciences)
J. David Neelin, Ph.D. (Atmospheric and Oceanic Sciences)
Peter Peterson, Ph.D. (Mathematics)

Scope and Objectives

The Mathematics/Atmospheric and Oceanic Sciences B.S. degree program is designed for students who have an interest in and talent for both subjects. Students completing the major are well-qualified for graduate study in the most demanding graduate programs in atmospheric sciences, oceanic sciences, or applied mathematics. Postgraduate training leads to employment at a professional level in academia, government, or private enterprise. Opportunities outside academia include environmental agencies, consulting companies, and governmental agencies such as NASA, National Oceanic and Atmospheric Administration (NOAA), National Center for Atmospheric Research (NCAR), Department of Energy (DOE), and the military, the Air Force and Navy in particular.

Graduates of the program are employed by private and public weather products firms, consulting companies, public utilities, and as science teachers at the elementary and secondary levels.

Undergraduate Study

The Mathematics/Atmospheric and Oceanic Sciences major is a designated capstone major. Students acquire experience in conceiving and executing research projects designed to evaluate hypotheses and complete an individual project or thesis selected with the assistance of the program advisers and faculty mentor. The topic should reflect integrative application of mathematics to atmospheric and oceanic sciences. Students are expected to prepare a significant independent piece of work that applies knowledge gained in their course-work in a new and unique way.

Mathematics/Atmospheric and Oceanic Sciences B.S. Capstone Major

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, Program in Computing 10A, and two courses selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5, Physics 4AL and 4BL are recommended but not required. Chemistry and Biochemistry 14A and 14B (or 20A and 20B) may also be required, depending on atmospheric and oceanic sciences upper division course selection. Each course must be taken for a letter grade and must be passed with a grade of C- or better, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students

Transfer applicants to the Mathematics/Atmospheric and Oceanic Sciences major with 90 or more units must complete as many of the fol-
lowing introductory courses as possible prior to admission to UCLA: two years of calculus for majors, physics courses equivalent to Physics 1A, 1B, and 1C, and one C++ programming course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admt_.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Six mathematics courses, including Mathematics 115A, 131A, 134, and three elective courses selected from 115B, 131B, 135, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170; six atmospheric and oceanic sciences courses, including three core courses selected from Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, and three elective courses selected from the five listed above (if not taken to satisfy the core requirement) or from C110, C115, M120, 125, 130, 145, C160, C170, 180.

One capstone senior projects/thesis course, Atmospheric and Oceanic Sciences 199, taken for a minimum of 2 units, is also required. An individual project or thesis to be selected with the assistance of the program advisers and a faculty mentor must be completed.

No more than one course may be applied toward both this major and a major or minor in another department or program.

Mathematics/Economics
Interdepartmental Program
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Don M. Blasius, Ph.D., Chair
Faculty Committee
Don M. Blasius, Ph.D. (Mathematics)
Robert F. Brown, Ph. D. (Mathematics)
Moshe Buchinsky, Ph.D. (Economics)
Russel E. Caffisch, Ph.D. (Management, Mathematics, Materials Science and Engineering)
Peter Petersen, Ph.D. (Mathematics)
Marek G. Pycia, Ph.D. (Economics)

Scope and Objectives
In recent years economics has become increasingly dependent on mathematical methods, and the mathematical tools it employs have become more sophisticated. Mathematically competent economists, with bachelor's degrees and with advanced degrees, are needed in industry and government. Graduate programs in economics and finance programs in graduate schools of management require strong undergraduate preparation in mathematics for admission.

The Economics/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. It is ideal for students who may wish to complete a higher degree in economics.

Undergraduate Study
Mathematics/Economics B.S.
Mathematics/Economics Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Economics major at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics/Economics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Programming in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C or better in all premajor economics courses (Economics 1, 2, 11) with a minimum 2.5 grade-point average and no more than one repeat, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11, Program in Computing 10A, one Writing II course. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A). The economics preparation courses must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses. Students must receive a grade of C or better in the Writing II course.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or any economics or mathematics preparation course more than once results in automatic dismissal from the major.

Transfer Students
Transfer applicants to the Mathematics/Economics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one introductory to discrete structures course, one microeconomic theory course, one macroeconomics course, and one C++ programming course.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admt_.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Six mathematics/statistics courses, including Mathematics 115A, 131A, 170A or Statistics 100A, 170B or Statistics 100B, and two courses from Mathematics 131B, 164, 174E (or 174A or Economics 141 or Statistics C183); five economics courses, including Economics 101, 102, 103, and two additional courses from 106E through 199B. Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

To graduate, the six Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the five courses from the Economics Department, with grades of C– or better in Economics 101 and 102.

It is strongly recommended that students take Mathematics 115A as one of their first upper-division courses for the major.

Honors Program
Students who wish to graduate with departmental honors should apply for admission to the honors program in the Mathematics Department Student Services Office. They may apply any time after completing the preparation for the major courses and meeting the following requirements: (1) be officially enrolled in the Mathematics/Economics major, (2) complete all the preparation for the major courses, (3) achieve a minimum 3.5 grade-point average in the mathematics preparation for the major courses, (4) achieve a minimum 3.5 grade-point average in the economics preparation for the major courses, and (5) achieve a minimum 3.5 grade-point average in Economics 11, 101, and 102.

To qualify for honors at graduation, students must (1) complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics 198A and 198B (the thesis process requires enrollment in a two-term sequence for economics courses), (3) present the thesis in Economics 198B, and (4) complete the major requirements with a minimum 3.5 grade-point average in both the upper division economics and mathematics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for
Mechanical and Aerospace Engineering

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Gregory P. Carman, Ph.D.
Ivan Catton, Ph.D.
Jiun-Shyan Chen, Ph.D.
Yong Chen, Ph.D.
Vijay K. Dhir, Ph.D., Dean
Rajit Gadh, Ph.D.
Judy I. Shane, M.S.

Adjunct Professors
Leslie M. Lackman, Ph.D.
Wilbur J. Marner, Ph.D.
Neil B. Morley, Ph.D.
Robert S. Shaefer, Ph.D.
Ronald Sizlard, Ph.D.

Associate Professor
Gopinath R. Warrier, Ph.D.

Adjunct Assistant Professor
Abdon E. Sepulveda, Ph.D.

Scope and Objectives

The Department of Mechanical and Aerospace Engineering offers curricula in aerospace engineering and mechanical engineering at both the undergraduate and graduate levels. The scope of the departmental research and teaching program is broad, encompassing dynamics, fluid mechanics, heat and mass transfer, manufacturing and design, nanoelectromechanical and microelectromechanical systems, structural and solid mechanics, and systems and control. The applications of mechanical and aerospace engineering are quite diverse, including aircraft, spacecraft, automobiles, energy and propulsion systems, robotics, machinery, manufacturing and materials processing, microelectronics, biological systems, and more. At the undergraduate level, the department offers accredited programs leading to B.S. degrees in Aerospace Engineering and in Mechanical Engineering. At the graduate level, the department offers programs leading to M.S. and Ph.D. degrees in Mechanical Engineering and in Aerospace Engineering. An M.S. in Manufacturing Engineering is also offered.

Undergraduate Study

The Aerospace Engineering and Mechanical Engineering majors are designated capstone majors. Within their capstone courses, Aerospace Engineering students are exposed to the conceptual and design phases for aircraft development and produce a structural design of a component, such as a lightweight aircraft wing. Mechanical Engineering students work in teams in their capstone courses to propose, design, analyze, and build a mechanical or electromechanical device. Graduates of both programs should be able to apply their knowledge of mathematics, science, and engineering in technical systems; design a system, component, or process to meet desired needs; function as productive members of a team; identify, formulate, and solve engineering problems; and communicate effectively, both orally and in writing.

Aerospace Engineering B.S.

Capstone Major

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 selected from those basic courses in aerospace engineering, 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 aerelasticity, dynamics, control and guidance, propulsion, and energy conversion.

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Computer Science 31; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required: Mechanical and Aerospace Engineering 101, 102, 103, 105A, 107, 150A, 150B, 150P, 154S, 155 or 161A or 169A, 157A, 157S, 166A, 171A, 182A; two departmental breadth courses (Electrical Engineering 100 and Materials Science and Engineering 104 — if one or both of these courses are taken as part of the technical breadth requirement, students must select a replacement upper division course or courses from the department — except for Mechanical and Aerospace Engineering 156A — or, by petition, from outside the department); three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Mechanical and Aerospace Engineering 154A, 154B); and two major field elective courses (8 units) from Mechanical and Aerospace Engineering 105D, 131A, 131AL, C132A, 133A, 133AL, 150C, C150G, 150R, 153A, 155 (unless taken as a required course), 161A (unless taken as a required course), 161B, 161C, 161D, 162A, 163A, 166C, M168, M169A (unless taken as a required course), 171B, 172, 174, C175A, 181A, 182B, 182C, 183.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Mechanical Engineering B.S.

Capstone Major

The ABET-accredited mechanical engineering program is designed to provide basic knowl-
Mechanical and Aerospace Engineering

Lower Division Courses


Upper Division Courses


103. Elementary Fluid Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Intro- duction to fluid mechanics, including the application of principles of mechanics to flow of compressible and incom- pressible fluids. Letter grading.

105A. Introduction to Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Phenomenological thermodynamics. Concepts of equilibrium, temperature, and reversibility. First law and concept of energy; second law and concept of entropy. Equations of state and ther- modynamic properties. Engineering applications of these principles in analysis and design of closed and open systems. Letter grading.

150D. Transport Phenomena. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 105A, Mathematics 32B, 33B. Transport phenomena; heat conduction, mass and energy species diffusion, convective heat and mass transfer, and radiation. Engineering applications in thermal and environmental control. Letter grading.

107. Introduction to Modeling and Analysis of Dy- namic Systems. (4) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Requisites: Computer Science 31, Electrical Engineering 100 (enforced). Introduction to modeling of physical systems, with examples of mechanical, fluid, thermal, and electrical systems. Description of these systems with coverage of impulse response, convolution, frequency response, first- and second-or- der system transient response analysis, and numeri- cal solution. Nonlinear differential equation descrip- tions with discussion of equilibrium solutions, small signal linearization, large signal response. Block dia- gram representation and response of interconnected systems. Hands-on experiments reinforce lecture material. Letter grading.


131AL. Thermodynamics and Heat Transfer Labora- tory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 131A, and 157 or 157S. Experimental study of physical phenomena and engi- neering systems using modern data acquisition and processing techniques. Experiments include studies of heat transfer phenomena and testing of cooling towers, heat exchanger, and internal combustion en- gine. Students take and analyze data and discuss physical phenomena. Letter grading.


133A. Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Phenomenological thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non- reactive fluid flow systems. Letter grading.

133AL. Power Conversion Thermodynamics Labora- tory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 133A, and 157 or 157S. Experimental study of power conversion and heat transfer systems using state-of-art plant process instrumentation and equipment. Experiments include studies of thermodynamic operating characteristics of actual Brayton cycle, Rankine cycle, compressive re- frigeration unit, and absorption refrigeration unit. Let- ter grading.

134. Design and Operation of Thermal 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.

135. Fundamentals of Nuclear Science and Engi- neering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20A, Mathematics 33B. Review of nuclear physics, radioactivity and decay, and radiation interaction with matter. Nuclear fission and fusion processes and mass defect, chain reactions, criticality, neutron diffu- sion and multiplication, heat transfer issues, and applications. Introduction to nuclear power plants for commercial electricity production, space power, space propulsion, and nuclear science for medical uses. Letter grading.

136. Energy and Environment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 105D. Recommended: courses 131A, 133A. Global energy use and supply, electrical power generation, fossil fuel and nuclear power plants, renewable energy such as hydropower, geothermal, and wind power.
biomass, geothermal, solar, wind, and ocean, fuel cells, transportation, energy conservation, air and water pollution. Letter grading. 

154A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101, 102, 156A. Introduction to mechanism design, including weight estimation, performance and stability, and control consideration. Term assignment consists of preliminary design of low-speed aircraft. Letter grading.


155. Intermediate Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 154, 154B. Kinematics and dynamics of rigid bodies. Euler equations, motion of rotating bodies, conservation laws, coordinate transformations. Orthogonality relations. Letter grading.


157. Basic Mechanical Engineering Laboratory. (4) Laboratory, four hours; outside study, eight hours. Enforced requisites: courses 101, 103, 105A, 156A. Experiments in basic mechanical principles and techniques in field. Letter grading.

157A. Fluid Mechanics and Aerodynamics Laboratory. (4) Laboratory, four hours; outside study, four hours. Requisites: courses 150A, 150B, and 157 or 157S. Experimental study of basic physical phenomena in fluid mechanics/aerodynamics, as well as hands-on experience with design of experimental programs and use of modern experimental tools and techniques in field. Letter grading.

157S. Basic Aerospace Engineering Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 101, 102, 103, 105A, 156A. Experiments in aerodynamics and mechanics of flight. Letter grading.

161A. Introduction to Astronautics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 102. Recommended: course 150. Space environment of Earth, trajectories and orbits, space vehicles, rendezvous, problem of three bodies, elementary perturbation theory, influence of Earth's oblateness. Letter grading.

161B. Introduction to Space Technology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended preparation: courses 102, 150P, 161A. Not open to students with credit for both courses 150R and 161R. Propulsion requirements for typical space missions, performance of rocket engines, internal ballistics, regenerative cooling, liquid propellant feed systems, POGO instability. Electric propulsion. Multistage rockets, separation dynamics. Satellites, space structures and materials, loads and vibrations. Thermal control of spacecraft. Letter grading.

161C. spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 161B or 161R. Coverage of preliminary design, by students, of a small spacecraft carrying lightweight scientific payload with modest requirements for electric power, lifetime, and attitude stability. Students work in groups of three or four, with each student responsible primarily for one subsystem and for integration with the whole. Letter grading.

161D. Space Technology Hardware Design. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Recommended requisite or corequisite: course 161. Design and operation of hardware with applications to space technology. Designs are then built by HSSEAS professional machine shop and tested by students. New project carried out each year. Letter grading.


162B. Mechanical Engineering Design I. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 94, 131A (or 133A), 137A. Design and manufacture of small spacecraft carrying lightweight scientific payloads. First of two mechanical engineering capstone design courses. Students design projects to design, construct, test, and present a prototype. Letter grading.

162E. Mechanical Engineering Design II. (4) Laboratory/discussion, four hours; outside study, eight hours. Enforced requisite: course 162D. Limited to seniors. Students apply design principles learned in mechanical engineering to capstone design course. Students continue design projects started in course 162D, making use of CAD design laboratory, CAD analysis laboratory, and mechanical laboratory. Design tools, economics, marketing, manufacturability, quality, intellectual property, design for manufacture and assembly, design for safety and reliability, and engineering ethics. Students complete hands-on design, fabrication, and testing. Culminating project demonstrations or competition. Preparation of design project presentations in both oral and written formats. Letter grading.

163A. Introduction to Computer-Controlled Machines. (4) Lecture, four hours; outside study, seven hours. Requisite or corequisite: course 171A. Modeling of computer-controlled machines, including electrical and electronic elements, mechanical elements, hydraulic elements, and overall control systems. Motion and command generation, servo-controller design, and computer/machine interfacing. Letter grading.

166A. Analysis of Flight Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 182A. Not open to students with credit for course 156A. Introduction to two-dimensional elasticity, stress-strain laws, yield and fatigue, bending of beams, torsion of beams, warping, torsion of thin-walled cross sections: shear flow, shear-lag; coupled bending-torsion of thinwalled structures used in aerospace vehicles; elements of plate theory; bending of columns. Letter grading.

166C. Design of Composite Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 182A. Composite structures, stress-strain relations for composite materials, bending and extension of symmetric laminates, failure analysis, design examples and design programs, buckling of composite components, nonsymmetric laminates, micromechanics of composites. Letter grading.

M168. Introduction to Finite Element Methods. (4) (Same as Civil Engineering M135C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 156A or 166A or Civil Engineering 130. Introduction to basic concepts of finite
element methods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix approximation methods; weighted residual, least squares, and Ritz approximation methods; shape function and convergence properties; isoparametric formulation of multidimensional heat flow and elasticity; numerical integration. Practical use of FEM software; geometric and analysis of beams, plates and shells; computer and post-processing techniques; term projects with computers. Letter grading.


171A. Introduction to Feedback and Control Systems: Dynamics, Modeling, and Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 107, 182A. Introduction to feedback principles, control systems design, and system stability. Modeling of physical systems in engineering and other fields; transform methods; controller design using Nyquist, Bode, and root locus methods; compensation; computer-aided analysis and design. Letter grading.


172. Control System Design Laboratory. (4) Lecture, three hours; laboratory, two hours; outside study, seven hours. Enforced requisite: course 171A. Introduction to loop shaping controller design with application to laboratory electromechanical systems. Power spectrum models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Servo and regulator functions and elementary sensitivity function imposed by nonminimum phase plants. Lecture topics supported by weekly hands-on laboratory work. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Decision Making. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: Mathematics 33A. Introduction to probability theory; random variables, distributions, functions of random variables, models of failure of components, reliability, redundancy, complex systems, stress-strength models, fault tree analysis, statistical quality control by variables and by attributes, acceptance sampling. Letter grading.


CM180. Introduction to CM180. Introduction to Micromachining and Micromechatronics Systems (MEMS) (4). (Same as Bioengineering CM150 and Electrical Engineering CM150L.) Lecture, one hour; laboratory, four hours; discussion, one hour; outside study, seven hours. Required: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to micromachining technology and micromechatronics systems (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students design microfabrication processes capable of achieving desired MEMS device. Concurrently scheduled with course CM280A. Letter grading.

CM180L. Introduction to CM180L. Introduction to Micromachining and Micromechatronics Systems (MEMS) Laboratory. (2) (Same as Bioengineering CM150L and Electrical Engineering CM150LL.) Lecture, one hour; laboratory, three hours; outside study, five hours. Enforced requisites: course CM180, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students get to process through course CM280L. Letter grading.

181A Complex Analysis and Integral Transforms. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 182A. Complex variables, analytic functions, conformal mapping, contour integrals, singularities, residues, Cauchy integrals; Laplace transform: properties, convolution, inversion; Fourier transform: properties, convolution, FFT, applications in dynamics, vibrations, structures, and heat conduction. Letter grading.


184. Introduction to Geometry Modeling. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Required: course 94, Computer Science 31. Recommended: Electrical and Computer Engineering 35B. Fundamentals in parametric curve and surface modeling, parametric spaces, blending functions, conics, splines andBezier curve, coordinate transformations, algebraic and geometric form of surfaces, analysis of curves and surfaces, geometric modeling, and solid modeling. Letter grading.

185. Introduction to Radio Frequency Identification and Its Application in Manufacturing and Execution Systems. (4) Lecture, two hours; outside study, six hours. Enforced requisite: Computer Science 31. Manufacturing today requires assembling of individual components into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification (RFID) technology is installed on components, subassemblies, and assembled products to allow them to be tracked automatically as they move through manufacture and distribution. Concurrently scheduled with course CM280L. Study of how RFID is being utilized in manufacturing, with focus on automotive and aerospace. Letter grading.


187L. Nanoscale Fabrication, Characterization, and Micromanufacturing Laboratory. (4) Lecture, two to four hours; laboratory, two hours; outside study, eight hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and biotechnology. Focus on the physical, chemical, and biological principles related to these techniques, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and electrochemical biosensors. Students encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C286L. Letter grading.

188. Special Courses in Mechanical and Aerospace Engineering. (2 to 4) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. Student presentation of projects in research specialty. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Mechanical and Aerospace Engineering. (2 to 6) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with topic or instructor change. P/NP or letter grading.
231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requires: course 105D. Study of materials and radiation and energy transfer. Emphasis on fundamental concepts, including energy levels and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.


231G. 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 Fusion Physics, Engineer- ing, 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 instabilities in burning plasmas, alternate fusion, confinement, 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 Bioengineering CM240.) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: courses 101, 102, 156A. Introduction to mechanics of materials and mechanics of importance to biomechanics. Application to biomechanics. Letter grading.

ear analysis; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

256A. Linear Elasticity. (4) (Same as Civil Engineering M230A.) Lecture; four hours; outside study, eight hours. Requisite: course 156A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastostatic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Gurti; introduction to boundary integral equation method. Letter grading.

256B. Nonlinear Elasticity. (4) (Same as Civil Engineering M230B.) Lecture; four hours; outside study, eight hours. Requisite: course 256A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws, Cauchy and Piola stresses, Cauchy equations of motion, balance of energy, stored energy; constitutive relations, elasticity, hyperelasticity, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.


258F. Advanced Foundations (4) Lecture, four hours; outside study, eight hours. Requisite: course 256A. Review of modern fracture mechanics, elementary stress analyses; analytical and numerical methods of crack tip stress intensity factors; engineering applications in stiffened structures, pressure vessels, plates, and shells. Letter grading.


258A. Nanomechanics and Micromechanics. (4) Lecture; course 280A. Analytical and computational modeling methods to describe mechanics of materials at scales ranging from atomic through microstructure or transitional and up to continuum. Discussion of atomistic simulation methods (e.g., molecular dynamics, Langevin dynamics, and kinetic Monte Carlo) and their applications at nanoscale. Development and applications of dislocation dynamics and statistical mechanics methods in areas of nanostructure and microstructure self-organization, heterogeneous plastic deformation, material instabilities, and failure phenomena. Presentation of technical applications of the emerging modeling techniques to surfaces and interfaces, grain boundaries, dislocations and defects, surface growth, quantum dots, nanotubes, nanoclusters, thin films (e.g., optical thermal barrier coatings and ultrathin nanolayer materials), nan-identifiable materials, nanodevices, nano- bending and microbending, and torsion. Letter grading.

259A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar; four hours; outside study, eight hours. Advanced study of topics in fluid mechanics, with intensive student participation involving assignments 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 study in various fields of solid mechanics, 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; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, and student presentations and projects in areas of current interest in mechanical engineering. May be repeated for credit. S/U grading.


262. Mechanics of Intelligent Material Systems. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: course 146C. Constitutive relations for electro-magneto-mechanical materials. Fiber-optic sensor technology. Micro/macrom analysis, including classical lamination theory, shear lag theory, composite analysis, linear and non-linear, and homogenization techniques as they apply to active materials. Active systems design, inch-worm, and biomimetics. Letter grading.

263A. Analytical Foundations of Motion Controlers. (4) Lecture; four hours; outside study, eight hours. Requisite: course 255A. Theory of motion control for modern computer-controlled machines; multi-axis computer-controlled machinery; multi-axis motion coordination; coordinated motion with desired speed and acceleration; jerk analysis; motion command generation; theory and design of controller in interdependent systems; motion control analysis and design; geometric-quadratic-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; environmental torques 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, 171A, 263C. Motion planning and control of articulated dynamic systems: nonlinear joint control, experiments in joint control and multiaxis coordination, multibody dynamics, trajectory planning, optimization, dynamic performance and manipulator design, kinematic redundancy, planning of manipulators in space, obstacle avoidance. Letter grading.


269D. Aeroelastic Effects in Structures. (4) Lecture; four hours; outside study, eight hours. Requisite: course 269A. Presentation of aeroelasticity from unified viewpoint applicable to flight structures, suspension bridges, buildings, and other structures. Derivation of aeroelastic operators and unsteady airloads from governing variational principles. Flow induced instability and response of structural systems. Letter grading.

270A. Linear System Dynamics. (4) (Same as Chemical Engineering M288A and Electrical Engineering M240A.) Lecture; four hours; outside study, eight hours. Requisite: course 171A or Electrical Engineering 141. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear system concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, realizability, minimality, and minimality criteria; state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.

270B. Linear Optimal Control. (4) Lecture; four hours; outside study, eight hours. Requisite: course 250A or Electrical Engineering M240A. Existence and uniqueness of solutions to linear quadratic (LQ) optimal control problems; solution of discrete-time and discrete-time systems, finite-time and infinite-time problems; Hamiltonian systems and optimal control; algebraic and differential Riccati equations; implications of detectability, observability, and detectability solutions. Letter grading.

270C. Optimal Control. (4) (Same as Chemical Engineering M280C and Electrical Engineering M240C.) Lecture; four hours; outside study, eight hours. Requisite: course 270A or Electrical Engineering M240A. Theory of optimal control; optimal control problems for continuous and discrete-time systems, finite-time and infinite-time problems; Hamiltonian systems and optimal control; algebraic and differential Riccati equations; implications of detectability, observability, and detectability solutions. Letter grading.

271A. Probability and Stochastic Processes in Dynamical Systems. (4) (Formerly numbered 271A.) Lecture; four hours; outside study, eight hours. Enforced requisite: courses 107, 182A. Probability spaces, random variables, stochastic sequences and processes, expectation, conditional expectation, Gauss/Markov sequences, and minimum variance estimator (Kalinin filter) with applications. Concurrently scheduled with course C175A. Letter grading.

271B. Stochastic Estimation. (4) Lecture; four hours; outside study, eight hours. Enforced requisite: course 271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, conditional mean and risk estimators. Letter grading.


271D. Seminar: Special Topics in Dynamic Systems Control. (4) Seminar; four hours; outside study, eight hours. Enforced requisite: course 280C. Focus on current research in dynamic systems modeling, control, and applications.
Topics selected from process control, differential games, nonlinear estimation, adaptive filtering, industrial process control, signal processing, etc. Letter grading.


275A. System Identification. (4) Lecture, four hours; outside study, eight hours. Methods for identification of dynamical systems from input/output data, with emphasis on identification of discrete-time (digital) models of sampled-data systems. Coverage of concepts and tools for continuous-time systems. Models identified include transfer functions and state-space models. Discussion of applications in mechanical and aerospace engineering, including identification of flexible structures, microelectromechanical systems (MEMS) devices, and acoustic ducts. Letter grading.


277. Advanced Digital Control for Mechatronic Systems. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Required: courses 171B, M270A. Digital signal processing and control analysis of mechatronic systems. System simulation-based digital control algorithms and robustness properties, Youla parameterization of stabilizing controllers, previewed optimal feedforward compensator, repeated pole cancellers, and adaptive control. Real-time control investigation of topics to selected mechatronic systems. Letter grading.

279. Dynamics and Control of Biological Oscillations. (4) Lecture, four hours; outside study, eight hours. Required: courses 107, M270A. Analysis and design of dynamical mechanisms underlying biological control systems that generate oscillatory patterns. Topics include neuronal information processing through action potentials (spike train), central pattern generator, coupled nonlinear oscillators, optimal gaits (periodic motion) for animal locomotion, and entrainment of peripheral oscillations via feedback control. Letter grading.

CM280A. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4) (Same as Bioengineering CM250B and Electrical Engineering M250B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: Requisites: Chemistry 10, Physics 1A, 1B, 1C, 4AL, 4BL, and one of the following: course CM280A, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to micromachining techniques and microelectromechanical systems (MEMS) laboratory. Introduction of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students go through process of fabricating MEMS device. Concurrently scheduled with course CM180L. Letter grading.

281. Microsciences. (4) Lecture, four hours; outside study, eight hours. Required: courses 131A, 150A. Basics of biological microscopes, materials for micro fluidic science, microscope heat transfer, mechanical behavior of microstructures, as well as dynamics and control of micro devices. Letter grading.

M282. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengineering M252 and Electrical Engineering M252.) Lecture, four hours; outside study, eight hours. Introductions to MEMS design, design rules, and analysis of MEMS. Letter grading.

283. Experimental Mechanics for Microelectromechanical Systems (MEMS). (4) Lecture, four hours; outside study, eight hours. Methods, techniques, and philosophies being used to characterize microelectromechanical systems for engineering applications. Material characterization, mechanical/material properties, mechanical characterization. Topics include fundamentals of physics and material properties, and mechanical behavior (e.g., strength, fatigue, fracture) as they relate to microscale. Considerable emphasis on emerging experimental approaches to address design-relevant mechanical properties. Letter grading.


285. Interfacial Phenomena. (4) Lecture, four hours; outside study, eight hours. Required: courses 103, 105A, 105D, 182A. Introduction to fundamental physical phenomena occurring at interfaces and applications in advanced materials. Fundamentals of interfacial phenomena, including surface tension, surfactants, interfacial thermodynamics, interfacial forces, interfacial hydrodynamics, and capillarity. The presentation of various applications, including wetting, change of state, liquids, and phase transitions. Letter grading.


M287. Nanoscience and Technology. (4) (Same as Electrical Engineering M257.) Lecture, four hours; outside study, eight hours. Required: course CM280A, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to current research topics in nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanotechnology, top-down and bottom-up (self-assembly) nanofabrication, nanomaterials, and nanoelectronics and nanobiotechnology. Introduction to new knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire students to create and perform new ideas in multidisciplinary nano areas. Letter grading.

C287L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Multidisciplinary introduction to laboratory techniques of nanoscale fabrication, characterization, and biodetection. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up methods of nanofabrication, nanochip characterizations, characterization (AEM, SEM, etc.), and optical and electrochemical biosensors. Students encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C187L. Letter grading.

288. Laser Microfabrication. (4) Lecture, four hours; outside study, eight hours. Required: Materials Science 10. Introduction to fundamental concepts of laser microscopic fabrication of advanced materials, including semiconductors, metals, and insulators. Topics include fundamentals in laser interactions with materials, transport phenomena (thermo, mass, chemical, carrier, etc.) in laser microfabrication, state-of-the-art optics and instrumentation for laser microfabrication, applications such as rapid prototyping, surface modifications (physical/chemical), micromachining for three-dimensional MEMS (microelectromechanical systems) and data storage, up-to-date research activities. Undergraduate projects. Letter grading.


294. Computational Geometry for Design and Manufacturing. (4) Lecture, four hours; outside study, eight hours. Required: course 184. 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.

295B. Internet-Based Collaborative Design. (4) Lecture, four hours; outside study, eight hours. Requi-
sites: courses 94, 184. Exploration of advanced stan-
dard in online learning. Lecture, fieldwork, and online me-
ding, digital media, and multimedia. Letter grading.

295C. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Designed for graduate engineering students. Examination of emerging trends in learning. Lecture, fieldwork, and online me-
ding, digital media, and multimedia. Letter grading.

296A. Damage and Failure of Materials in Mech-
anical Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A. Role of failure prevention in mechanical design and case studies. Mechanical and materials sciences. Lecture, fieldwork, and online me-
ding, digital media, and multimedia. Letter grading.

296B. Thermomechanical Processing of Materials. (4) Lecture, four hours; outside study, eight hours. Requisite: course 183. Thermodynamics, heat and mass transfer, principles of material processing: phase equilibria and transitions, transport mecha-
nisms 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 aero-
space engineering students. Seminars may be organ-
ized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

M299A. Seminar: Systems, Dynamics, and Con-
trol Topics. (2) (Same as Chemical Engineering M297 and Electrical Engineering M248S.) Seminar, two hours; outside study, six hours. Limited to gradu-
ate engineering students. Presentation 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) Sem-
inaria to be arranged. Preparation: apprentice person-
elm employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be re-
peated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Prepa-
ration: appointment as teaching assistant in depart-
ment. Seminar on communication of mechanical and aerospace engineering principles, concepts, and methods; seminar preparation, organization, and presentation of material, including use of vir-
ual aids; grading, advising, and rapport with stu-
dents. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate me-
chanical and aerospace engineering students. Peti-
tions for 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 Exami-
nation. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
dents. Reading and preparation for M.S. comprehen-
sive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examina-
tions. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
dents. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Exam-
nation. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
dents. Preparation for oral qualifying examination, in-

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Su-
bersived independent research for M.S. candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of Ph.D. Disser-
tation. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
dents. Usually taken after students have been ad-
vanced to candidacy. S/U grading.

MEDICINE

David Geffen School of Medicine

UCLA

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Chairs

Alon M. Fogelman, M.D., (William S. Adams Professor of Medicine and Castellar Professor of Cardiology), Executive Chair
Jan H. Tillisch, M.D., (Executive Vice Chair
Mary C. Terry, M.D., (Executive Vice Chair, Academic Affairs)
Robert K. Oye, M.D., Executive Vice Chair, Clinical Services
Dennis J. Siamon, M.D. (Bowyer Professor of Medical Oncology), Executive Vice Chair, Research

Scope and Objectives

The principal goal of the Department of Medi-
cine is to educate students in the expert diag-
nosis and compassionate management of hu-
mian illness. Building on the biochemical, physi-
ological, and behavioral foundations of the pre-
clinical experience, students are taught in-
formation acquisition through history taking, phisical examination, and laboratory evalua-
tion; information synthesis through achieving a differential diagnosis and evaluative plan; and medical decision making for continued evalu-
ation and therapy. Students are encouraged and guided in developing a caring physician/patient relationship.

Instruction in the department is provided in all four years constituting a continuum of clinical 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 offi-
cers and attending staff.

The department offers a broad range of ad-
vanced clinical clerkships in general and sub-
specialty ambulatory and hospital-based inter-
nal medicine at all the major affiliated centers.

For further details on the Department of Medi-
cine and a listing of the courses offered, see http://www.medstudent.ucla.edu.

Medicine

Upper Division Courses

M160A. Health Outreach and Education for At-
Risk Populations. (4) (Same as Public Health M160A.) Lecture, four hours; possible field observa-
tions. First in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socio-

economic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-
Risk Populations. (4) (Same as Public Health M160B.) Lecture, two hours; discussion, two hours. Required course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvan-
taged, and effects of low socioeconomic status on ac-
demic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

M160C. Health Outreach and Education to At-
Risk Populations. (4) (Formerly numbered 190C.) Semi-
nar, two hours; fieldwork, six to eight hours. Requi-
sites: courses M160A, M160B. Processes involved with designing, delivering, and assessing community health education programs, under supervision of pro-
fessional staff. P/NP or letter grading.

180. Special Topics in Medicine. (4) Lecture, four hours; discussion, one hour. Medical topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors and students. Topics may include East/ West medicine and global medicine. May be repeated for credit with topic or instructor change. P/NP or let-
ter grading.

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

Graduate Courses

M215. Interdepartmental Course: Tropical Medi-
cine. (2) (Same as Pathology M215 and Pediatrics M215.) Lecture, two and one-half hours. Preparation: basic courses in microbiology and parasitology of in-
fected diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of the world. Major empha-
sis on infectious diseases, with coverage of problems in nutrition and exotenic diseases. Sylla-

M256. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M256, and Oral Biology M256.) Lecture, three hours; discussion, one hour. Designed to instill in pro-
fessional students ideas of common emergency health problems and coordinated response, with spe-
cific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infec-
tious disease emergencies. Interdisciplinary sessions
also attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five. Letter grading.

M260A-M260B. Methodology in Clinical Research I, II (4-4) (Same as Biomathematics M260A-M260B.) Lecture, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Requisites: Biomathematics 125, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics, S/U or letter grading.

M260C. Methodology in Clinical Research III (4) (Same as Biomathematics 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. Responsible Conduct of Research Involving Humans. (2) (Same as Biomathematics M261.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on human subjects of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biomathematics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (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.

M270C. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Computer Science M296A.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Biomathematics 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 experiment design via applications in physiology and pharmacology. Letter grading.

M270D. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biomathematics M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Biomathematics 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 experiment design via applications in physiology and pharmacology. Letter grading.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4, 23L; Chemistry 14AL, 14BL, 14CL, 14, 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.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or lower in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Microbiology, Immunology, and Molecular Genetics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissions transfer selection for admission.

Students intending to major in Microbiology, Immunology, and Molecular Genetics may seek counseling and petition to enter the major in the Student Affairs Office, 1602B Molecular Sciences.

The Major

Two plans are offered by the department:

Plan I — Research Immersion Laboratory

Required: (1) Three foundation courses: Chemistry and Biochemistry 153A, Microbiology, Immunology, and Molecular Genetics 101, 185A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL or (c) Molecular, Cell, and Developmental Biology 104AL and 104BL or (d) 187AL and 187BL, (3) three focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular, Cell, and Developmental Biology 138, 165A, and (4) at least 12 units of general elective courses selected from Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 156, CM160A, CM161A, 171, 172, C179, C181, Ecology and Evolutionary Biology 121, 135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, CM122, C174, 191H, 198C, 199, Molecular, Cell, and Developmental Biology 100, 143, 144, 165A, 168, 172, 187AL, 187BL, Neuroscience M101A, M101B, M101C.

Plan II — Advanced Independent Research

Required: (1) Three foundation courses: Chemistry and Biochemistry 153A, Microbiology, Immunology, and Molecular Genetics 101, 185A, (2) Microbiology, Immunology, and Molecular Genetics 199A, 199B or Molecular, Cell, and Developmental Biology 196A, 196B, (3) Microbiology, Immunology, and Molecular Genetics 180A, 180B or Molecular, Cell, and Developmental Biology 180A or 180B, (4) three focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular, Cell, and Developmental Biology 138, 165A, and (5) at least 8 units of general elective courses selected from Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 156, CM160A, CM161A, 171, 172, C179, C181, Ecology and Evolutionary Biology 121, 135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, CM122, C174, 191H, 198C, 199, Molecular, Cell, and Developmental Biology 100, 104AL, 104BL, 138, M140, C141, 143, 144, 165A, 168, 172, 187AL, 187BL, Neuroscience M101A, M101B, M101C.

Plan II requires submission and approval of an admissions application. Detailed information may be obtained at the Student Affairs Office, 1602B Molecular Sciences.

Each major course must be taken for a letter grade of C– or better, and students must have a minimum overall grade-point average of 2.0 or better in the major. Students receiving a grade of D or below in two major courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Honors Program

Overall grade-point averages of 3.2 and 3.5 in the preparation for the major and major respectively are required to apply for departmental honors. In addition students must have junior standing and the sponsorship of a faculty advisor from the department. The core of the program consists of Microbiology, Immunology, and Molecular Genetics 198A, 198B, and 198C research, culminating in a thesis. If the thesis is accepted by the honors committee and students complete all major requirements with a GPA of at least 3.5, they are awarded the bachelor’s degree with departmental honors. The department also offers an honors seminar course each Winter Quarter that is required for the honors program. For further information, contact the Student Affairs Office, 1602B Molecular Sciences.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa

Microbiology, Immunology, and Molecular Genetics

Lower Division Courses


6. Microbiology for Nonmajors. (4) Lecture, four hours. Not open for credit to students with credit for course 101. Designed for nonscience students; introduction to biology of microorganisms (bacteria, viruses, protozoa, algae, fungi), their significance as model systems for understanding fundamental cellular processes, and their role in human affairs. P/NP or letter grading.

7. 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, cleanup, genetic fingerprinting, genetic engineering, and agricultural and food microbiology. P/NP or letter grading.

10. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Recommended preparation: Mathematics 3A or 31A. Limited to nursing majors. Introduction to biology of microbial pathogens, their role in development of human immune response, and presentation of symptoms and diseases caused by microbial infections. 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.

20. Preventing Medical Microbiology. (4) Lecture, four hours; discussion, one hour. Recommended preparation: Mathematics 3A or 31A. Investigation of medical microbiological life, with emphasis on bacterial pathogens from host, as well as pathogen, perspective. Role of pathogens in development of human immune response, presentation of symptoms and disease caused by microbial infections, and diagnosis and treatment of microbial infections. Offered in summer only. Letter grading.

Upper Division Courses

100L. Microbiology Laboratory for Professional Schools. (3) Lecture, two hours; laboratory, three hours. Spring. Recommended prerequisites: Life Sciences 2, 4, with grades of C or better. Recommended corequisites: course 101. Limited to nonmajors. Experimental techniques of mi-
crobiology, with emphasis on cultivation and charac-
terization of bacteria. Laboratory exercises include
light microscopy, physical techniques, and identifi-
cation methods. Students learn to work effectively in
groups to perform experiments, record observations,
and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three
hours; discussion, one hour. Requisites: Life Sciences
3, 4. Historical foundations of microbiology; introduc-
tion to bacterial structure, physiology, biochemistry,
genetics, and ecology. Letter grading.

102. Introductory Virology. (4) Lecture, three
hours; discussion, one hour. Requisite: Life Sciences
3, 4. Survey of parasitic protozoa not only as para-
sites that interact with host, but also as model sys-
tems for analysis of basic biological phenomena such
as gene regulation, molecular genetics, cell interactions,
molecular evolution, and novel biochemi-
cal pathways. Letter grading.

C174. Advanced Topics in Molecular Parasitobiol-
yogy. (4) Lecture, three and one half hours. Requisite:
Life Sciences 3, 4. Examination of recent advances in
molecular biology of parasites and host/parasite relation-
ship. Specific topics include parasite development, antigenic variation in trypanosomes, RNA editing,
and prospects for parasitic vaccines. Concurrently sched-
uled with course C274. Letter grading.

180A. Scientific Analysis and Communication I.
(2) Seminar, two hours. Enforced corequisite: course
219A. Students read and discuss scientific articles
and give presentations, introducing research topics
using relevant primary literature. Critical aspects of re-
search process, including record keeping, ethics, lab-
oratory safety and citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

103AL. Research Immersion Laboratory in Virolo-
y. (5) Formerly numbered 130L. Lecture, two and
one half hours; laboratory, eight hours. Requisites: Life Sciences 3, 4, 23L. Recommended requisite or corequisite: course 101. Course 103AL is enforced requisite to 103BL. Limited to Microbiology, Immunol-
ogy, and Molecular Genetics and Molecular, Cell,
and Developmental Biology majors. Research-oriented labora-
tory designed to promote discovery of novel bacterial viruses (phages). Working in teams, students conduct research projects that incorporate techniques in microbiology, virology, and molecular bi-
ology to design and develop bioinformatics tools and com-
putational analysis software. Emphasis on reading and understanding scientific literature as well as im-
proving critical thinking skills such as ability to evalu-
ate hypotheses, experimentally address scientific ques-
tions. Critical aspects of research process, in-
cluding record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

103BL. Advanced Research Analysis in Virology.
(4) Formerly numbered 188C. Laboratory, six hours.
Enforced requisite: course 103AL. Limited to Microbi-
ology, Immunology, and Molecular Genetics and Mo-
lecular, Cell, and Developmental Biology majors. De-
signed to provide students authentic, discovery-based research experience in life sciences. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustra-
tions for presentations, posters, reports, and websites (database entries). Research accomplishments dis-
cussed in weekly seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project re-
quired. Letter grading.

CM122. Mouse Molecular Genetics. (2) (Same as
Human Genetics CM122.) Lecture, two hours. Requi-
site: Life Sciences 4. Emphasis on use of mouse ge-
etic approach to studying fundamental biological questions. Topics include mouse genome and func-
tional genomics, mutagenesis screening and cloning of disease genes, transgenesis and its applicability in
developmental biology, stem cell biology, neurobiolo-
y, and modeling human genetic disorders. Reading materials include original papers and reviews. Con-
currently scheduled with course CM222. P/NP or let-
ter grading.

123. Advanced Annotation and Comparative Ge-
nomics. (4) Lecture, two and one half hours; comput-
er laboratory; six hours. Requisite: course 103L or
Molecular, Cell, and Developmental Biology 187A with
grade of B– or better. Participation in discovery-
based research experience, working as research team to analyze microbial genomes using bioinfor-
matics techniques involving variety of online databas-
es. Investigation of cellular pathways and structures as means to discover novel genes and unusual varia-
tions in classical systems. Results of high-quality an-
notation efforts, including first peer-reviewed publication in peer-re-
viewed science journal. Part of DOE Joint Genome
Institute Undergraduate Research in Microbial Ge-
nome Annotation education program. Offered in sum-
mer only. Letter grading.

132. Cell Biology of Nucleus. (4) Lecture, three
hours; discussion, one hour. Requisite: Life Sciences
4. Cell biology of eukaryotic nucleus, including princi-
les of chromosome structure, transcription, RNA processing, genomic transport, and cell cycle
control. Letter grading.

C134. Ethics and Accountability in Biomedical Re-
search. (2) Seminar, two hours. Designed for gradu-
te students who have credit for life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investi-
gators in research, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Con-

flicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investi-
gational goals and certain societal values may con-
flict. Concurrently scheduled with course C234. P/NP
grading.

CM156. Human Genetics. (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. Application of genetic principles in human populations, with em-
phases on cytogenetics, biochemical genetics, popula-
tion genetics, and family studies. Lectures and read-
ings in literature, with focus on current questions in fields of medical and human genetics and methodolo-
gies appropriate to answer such questions. Concur-
rently scheduled with course CM256. Letter grading.

158. Microbial Genomics. (4) Lecture, three
hours; discussion, one hour. Requisite: course 101, Chem-
istry 153A. Evolution, biodiversity, and sequencing of
genomes; bacterial and viral genomes; bioinformatics;
gene knockouts; genomics of antibiotic resistance;
proteomics. Guest lecturers from department and re-
lated departments who discuss key papers with focused on their areas of expertise. Letter grading.

168. Molecular Parasitology. (4) Lecture, three
hours; discussion, one hour. Requisites: Life Sciences
3, 4. Survey of parasitic protozoa not only as para-
sites that interact with host, but also as model sys-
tems for analysis of basic biological phenomena such
as gene regulation, molecular genetics, cell interactions,
molecular evolution, and novel biochemi-
cal pathways. Letter grading.

180B. Scientific Analysis and Communication II.
(2) Seminar, two hours. Enforced corequisite: course
199B. Students present research projects similar to labora-
tory meeting or research symposium talk in which
speakers discuss project goals, methodological ap-
proaches, results, and conclusions. How to write re-
search papers as well as prepare and present scien-
tific posters. Production of deliverables that demon-
strate research achievements and creation of sense
of pride for work accomplished as skilled researchers. Letter grading.

185A. Immunology. (5) Lecture, three hours; discus-
sion, 90 minutes. Requisites: Life Sciences 3, 4, 23L.
Recommended requisite or corequisite: Chemistry
153A. Not open for credit to students with credit for
course 261. Introduction to experimental immunobi-
ology and immunochemistry; cellular and molecular as-
psects of humoral and cellular immune reactions. Let-
ter grading.

188. Special Courses in Microbiology, Immunolo-
y, and Molecular Genetics. (4) (Formerly num-
bered 188A.) Seminar, two hours. Departmentally
sponsored experimental or temporary courses, such as
those taught by visiting faculty members. May be
repeated for credit with topic change. P/NP or letter
grading.
191H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Requisite: course 198A or 198B. Limited to senior microbiology, immunology, and molecular genetics honors program students. Discussion of current research literature, with focus on thesis topics/areas that students are working on as part of their departmental honors requirements. One-hour presentation of student thesis research and current literature associated with it required. May be repeated for credit. P/NP grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, immunology, and molecular genetics field. Letter grading.

193B. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, immunology, and molecular genetics. Letter grading.

194A. Research Group Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, two hours. Requisite: for中级 students who are part of research group in department faculty laboratory. Discussion of research methods and current literature in field or of research faculty members or students. May be repeated for credit. P/NP grading.

194B. Research Group Seminars: UC LEADS and NIH/MARC. (2) Seminar, two hours. Limited to students in UC LEADS/MARC programs. Analysis, review, and critique of current papers in biomedical sciences disciplines, using skills necessary for effective oral communication and effective use of software such as PowerPoint for oral presentations. May be repeated for credit. Letter grading.

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

198A-198B-198C. Honors Research in Microbiology, Immunology, and Molecular Genetics. (4-4-4) Tutorial, 12 hours. Course 198A is requisite to 198B, which is requisite to 198C. Limited to junior/senior microbiology, immunology, and molecular genetics honors program students. Directed individual research for departmental honors; students must have faculty sponsor. Progress report must be submitted to faculty sponsor at end of two terms. Letter grade awarded for thesis submitted at end of final term. Maximum of 8 units may be applied toward major, with balance applied toward B.S. degree requirements. Individual contract required. Letter grading.

199. Directed Research in Microbiology, Immunology, and Molecular Genetics. (4) (Formerly numbered 199A.) Tutorial, 12 hours. Preparation: minimum 2.5 grade-point average in major and major. Supervised individual research project under guidance of departmental faculty mentor. Copy of report describing research must be filed with Student Affairs Office by student. May be repeated for credit. Individual contract required. Letter grading.

199A. Advanced Independent Research in Microbiology, Immunology, and Molecular Genetics. (4) (Formerly numbered 197A.) Laboratory, 12 hours. Enforced requisites: courses 198A, 3, 4, 3.0 premajor and/or major grade-point average, and at least one term of prior experience in same laboratory in which 199A research is to be conducted. Enforced corequisite: course 198B. Course 199A is enforced requisite to 199B. Designed for undergraduate students who are interested in pursuing inquiry-based and hypothesis-driven research experience in laboratory of department faculty. Guided research courses be taken in conjunction with course 180A, followed by continuation research course 199B. Technical aspects vary depending on specific laboratory; however, all students learn how to apply scientific method: pose hypothesis, identify experiments to address hypothesis, perform experiments, and analyze result. How to record information from experimental activities into laboratory notebooks and to write research proposals. Letter grading.

199B. Advanced Independent Research in Microbiology, Immunology, and Molecular Genetics. (4) (Formerly numbered 179B.) Laboratory, 12 hours. Enforced requisite: course 199A. Enforced corequisite: course 199B. Expansion of scope, increasing depth, and implementation of independence in research to be performed in same laboratory as course 199A to facilitate learning and implementation of goals stated previously. Technical aspects vary depending on specific laboratory; however, all students use scientific method learned in course 199A and continue same experimental scope proposed, but with additional degree of independence in technical and intellectual aspects of research. Letter grading.

Graduate Courses

208. Molecular Biology of Animal Viruses. (4) Lecture, three hours. Preparation: courses in general biochemistry and virology. Recommended for advanced undergraduate students or majors in public health, biology, or microbiology and for graduate students with interest in any field of biology or chemistry. Overview of animal viruses, including viral structure, virus cell interaction, virus replication, and viral oncogenesis. Special emphasis on understanding molecular mechanism involved in disease control and regulation of replication, transcription, and translation of viral genome and its complex interaction with host. Letter grading.


229. Molecular Mechanisms of Host/Pathogen Interaction. (4) (Same as Pathology CM229.) Lecture, two hours; discussion, two hours. Requisites: BiologicaL Chemistry 254A through 254D. Independent investigation into mechanisms of microbial interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include pathogenesis of common viruses, bacteria, fungi, and parasites, basis of toxin-mediated cellular damage, and immune suppression of microbial tissue damage. Letter grading.

234. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for life sciences or biomedical individual studies 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, authorship, which investigative goals and certain societal values may conflict. Concurrently scheduled with course C134. S/U grading.

240. Cytokines and Reproductive Biology. (2) (Same as Molecular, Cell, and Developmental Biology CM240.) Lecture, 90 minutes; discussion, one hour. Overview of current progress on research in cytokines and other immune system molecules in reproductive biology. Letter or P/NP grading.

242. Seminar: Microbial Molecular Genetics. (2) Seminar, two hours. Student and instructor presentation and critical discussion of newly emerging concepts in prokaryotic and/or eukaryotic microbial genetics. Emphasis on nature of the gene and control of gene expression. May be repeated for credit. S/U or letter grading.

270. Seminar: Microbial Viology. (2) Seminar, two hours. Designed for graduate students. Discussion and student presentations of recent work in areas of genetic regulation and physiology of bacterial metabolism. Letter grading.

CM256. Human Genetics. (4) (Same as Human Genetics CM256 and Molecular, Cell, and Developmental Biology CM256.) Lecture, three hours. Requisites: Life Sciences 3, 4. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and medical genetics. Lecture may be repeated for credit. S/U grading.

261. Molecular and Cellular Immunology. (4) Lecture, three hours. Requisites: Chemistry 254A through 254D. Strongly recommended corequisite: course 298. Comprehensive course for graduate students and selected undergraduate students covering fundamental and recent advances in molecular and cellular immunology. Lectures supplemented by course 298 seminar, with focus on reading and analysis of primary research articles. Oral presentation required. Letter or S/U grading.

262A-262B-262C. Seminars: Current Topics in Immunobiology of Cancer. (2-2-2) Seminar, two hours. Designed for graduate students (or undergraduate students with consent of instructor). Review of recent literature in immunobiology, immunology, and biochemistry of cancer, with emphasis on fundamental studies involving cell-mediated immunity, humoral response, tumor specific antigens, and new techniques. Discussion of reports on scientific meetings. Each course and readings in literature, with focus on current questions in fields of medical and human genetics and methodology appropriate to answer such questions. Concurrently scheduled with course 298. 262A, 262B, 262C, may be repeated for credit. S/U or letter grading.

270. Seminar: Molecular Viology. (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.


296. Seminar: Research Topics in Microbiology, Immunology, and Molecular Genetics. (1 to 4) Seminar, two hours; research group meeting, one hour. Limited to departmental graduate students. Advanced study and analysis of current topics in microbiology, immunology, and molecular genetics. Discussion of current research and literature in research specialty at faculty member teaching course. S/U grading.

298. Current Topics in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Strongly recommended corequisite: course 261. Preparation of student oral critique and participation in discussions on assigned topics. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
MIDDLE EASTERN AND NORTH AFRICAN STUDIES
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Huiying Li, Ph.D.
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Saman Sadeghi, Ph.D., in Residence
Kwang-Fu Shen, Ph.D.
Michael Van Dam, Ph.D.

Adjunct Professors
Maria G. Castro, Ph.D.
Sanjiv (Sam) Gambhir, M.D., Ph.D.
James R. Heath, Ph.D.
Barbara A. Levey, M.D. (Rosalinde and Arthur Gilbert Foundation Endowed Professor of Interdepartmental Clinical Pharmacology)
Pedro R. Lowenstein, M.D., Ph.D.
Jide Tian, M.D.

Adjunct Associate Professors
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Jing Liang, M.D., Ph.D.
David B. Stout, Ph.D.
Joy A. Umbach, Ph.D.

Adjunct Assistant Professors
Heather D. Agnew, Ph.D.
Roy Doumani, LL.D.
Ting-Ting Wu, Ph.D.

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 cellular biology, transgenic and chimeric mice, and cellular and organ imaging. Organic synthesis, genetic engineering, and imaging techniques such as confocal fluorescence and cryoelectron microscopy, autoradiography, and positron emission tomography (PET) are extensively employed. The imaging techniques are available in the Crump Institute for Molecular Imaging, Ahmanson Biological Imaging Clinic, and UCLA-DOE Institute for Genomics and Proteomics, 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 cellular 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.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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 by the School of Medicine in order to qualify. The second is the Specialty Training and Advanced Research (STAR) Program in which candidates are post-M.D. housestaff (interns, residents, or fellows) who have been accepted into the STAR Program by its selection committee in order to qualify.

The department, together with the Division of Laboratory Animal Medicine, offers Ph.D. or postdoctoral training combined with residency training for veterinarians (with D.V.M. or D.V.M./...
Molecular and Medical Pharmacology

Upper Division Courses

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) Same as Molecular Toxicology M110A. Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Course M110A is requisite to 110B. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

M110B. Drugs: Mechanisms, Uses, and Misuse. (4) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Preparation: mammalian physiology, biochemistry, immunology, 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). Preparation: mammalian physiology, biochemistry, immunology, and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

194. Research Group or Internship Seminars: Cross-Disciplinary Scholars in Science and Technology Project. (4) Seminar, two hours; discussion, two hours. Limited to Cross-Disciplinary Scholars in Science and Technology (CSSST) students. Communication and collaboration skills, specifically in interdisciplinary research settings and introduction to research project design and proposal process. Students submit written CSSST project proposal and give oral presentations of proposal and of UCLA internship research results. May be repeated for credit. Letter grading.

199. Directed Research in Molecular and Medical Pharmacology. (2 to 8) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Special studies in pharmacology, including reading assignments or laboratory work or both, designed for proper training of students. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Introduction to Laboratory Research. (8) Laboratory, eight to 20 hours. Individual projects in laboratory research for beginning graduate students. At end of each term students submit to their supervisor reports covering research performed. Pharmacology graduate students must take this course three times during their first two years in residence. Letter grading.

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 introduce students to 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.

M205A. Introduction to Chemistry/Biology Interface. (2) (Same as Chemistry CM205A.) Lecture, three hours; discussion, one hour. Enforced prerequisite: Chemistry 153A with grade of C-- or better. Introduction to chemical biology. Topics include computational chemical technology, molecular models of the cell, and utility of synthesis in biochemical research, peptidomimetics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, imaging of metal ions in cells, metal-containing drugs. Letter grading.

M205B. Issues on Chemistry/Biology Interface. (2) (Same as Chemistry M205B.) Seminar, one hour. Requisite: course M205A. Selected talks and papers presented by training faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface (CBI). S/U grading.

211A-211B. Principles of Pharmacology. (4-2) Lecture, zero to two hours; discussion, four to zero hours. Preparation: mammalian physiology, biochemistry, immunology, and toxicology. Systematic consideration of principles governing interaction between drugs and biological systems and of principal groups of drugs used in therapy. Cell-specific action, target identification, and disposition to provide a scientific basis for their rational use in medicine. S/U or letter grading.


234C. Laboratory in Toxicological Methods. (2) (Same as Environmental Health Sciences M245 and Molecular Toxicology M245.) Lecture, one hour; laboratory, five to six hours. Survey of experimental techniques used in study of toxic substances. Experiments conducted within known toxicants to demonstrate their effects at molecular, cellular, and tissue levels. Preparation: principles of techniques and methods of data analysis at discussion session prior to laboratory. Letter grading.

237. Research Frontiers in Cellular and Molecular Pharmacology. (6) Lecture, six hours; laboratory, five hours. Survey of experimental principles of pharmacology and mechanisms of drug action at organismal, tissue, cellular, and molecular levels, with emphasis on receptor, receptor/effector coupling, neurotransmitters, cardiovascular pharmacology, automatic and central nervous system pharmacology. Letter grading.

241. Introduction to Chemical Pharmacology and Toxicology. (8) (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 distribution, metabolism, excretion, and modes of action. S/U or letter grading.

248. Introduction to Biological Imaging. (4) (Same as Bioengineering 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 range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.

251. Seminar: Pharmacology. (2) Seminar presented by students, faculty, and guest lecturers on a variety of topics in pharmacology. S/U grading.

M252A. Molecular Mechanisms of Human Diseases I. (4) (Same as Molecular, Cellular, and Integrative Physiology M252A.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M252B. Fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.

M252B. Molecular Mechanisms of Human Diseases II. (4) (Same as Molecular, Cellular, and Integrative Physiology M252B.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M252A. Fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.

257. Introduction to Toxicology. (4) (Same as Pathology M257.) Requisite: course M241. Biochemical and system toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems. S/U or letter grading.

258. Pathologic Changes in Toxicology. (4) (Same as Pathology M258.) Designed to give students experience in learning normal histology of tissues which are major targets of toxic and the range of pathological changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system). S/U or letter grading.

261. Institute for Molecular Medicine Seminar Series: Analysis and Discussion. (2) Seminar, one hour. Requisite: course 251. Limited to graduate students. In-depth evaluation of Institute for Molecular Medicine (IMED) Seminar speakers, with focus on scientific approach and rationale, experimental methods and novel and pioneering findings in modern biology, with relevant background information on speakers and their institute, and presentation style and communication. Discussion on characteristics that define and shape leaders in given fields. Students host and discuss in seminars with seminar leaders, lead discussions to reconstruct all aspects of seminar presentations, and submit write-ups for online Wiki-postings on seminar-specific scientific topics. S/U grading.

M262A. Molecular Mechanisms of Human Diseases I. (4) (Same as Molecular, Cellular, and Integrative Physiology M262A.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M262B. Fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human disease and integration of biology with mechanisms underlying disease development and applications in therapy as they apply to neurological, cardiovascular, and metabolic diseases. Letter grading.

M262B. Molecular Mechanisms of Human Diseases II. (4) (Same as Molecular, Cellular, and Integrative Physiology M262B.) Seminar, two hours. Corequisite: course M262A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M262A. Letter grading.

286. Business of Science: Exploring Entrepreneurship Seminar. (1) Seminar, one hour. Limited to graduate students. Further exploration of topics discussed in course 287, allowing students to interact with guests and bring their individual concerns to tabe. Past and present students encouraged to enroll. S/U grading.

287. Business of Science: Exploring Entrepreneurship. (2) Lecture, two hours. Limited to graduate students. Introduction to principles of business and entrepreneurship in technology sectors. Basic business skills and knowledge required to effectively perform in commercial environment and within academic environment that is increasingly involved in industry partnerships. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs. Design, identification and evaluating new venture opportunities, development of financing, legal considerations, and exit and exit strategies presented and examined through case studies. Utilization of seminar for new venture feasibility analysis by students for product of their choice. S/U or letter grading.

288. Gene Therapy. (4) Lecture, three hours; discussion, one hour. Introduction to basic concepts of gene therapy, wherein treatment of human disease is based on transfer of genetic material into an individual. Discussion of molecular basis of disease, gene delivery vectors, and animal models. Letter grading.
this committee and the various departments concerned in support of faculty research and teaching associated with the Ph.D. program. Staff members are from participating departments and from the Molecular Biology Institute. Areas for study include cell biology; developmental biology and neurobiology; nuclear acid biochemistry; gene regulation; immunobiology; microbiology/virology and pathogenesis; molecular evolution and paleobiology; oncogenesis and signal transduction; plant molecular biology; protein and enzyme structure and function; genomics; bioinformatics; and structural biology.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/index.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Molecular Biology Program offers the Doctor of Philosophy (Ph.D.) degree in Molecular Biology.

Molecular Biology

Graduate Courses

298. Current Topics in Molecular Biology. (2) Student presentation/seminar, two hours. Students present oral critiques and participate in discussions on assigned topics. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Directed individual research or study. May be repeated for maximum of 12 units. S/U grading.

599. Ph.D. Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. Directed individual research or study. May be repeated for maximum of 12 units. S/U grading.

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 Ph.D. degree provides opportunity for advanced concentrated study and requires independent and innovative research that ultimately results in publishable dissertation materials.
Undergraduate Study

Molecular, Cell, and Developmental Biology 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, 23L; 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.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Molecular, Cell, and Developmental Biology 138 or C141; one developmental biology course from Molecular, Cell, and Developmental Biology 198A through 198D or 199A through 199D may be applied toward the major. Credit for 199 courses from other departments may not be applied except by petition.

Any single course may be applied toward only one category within the major (e.g., course C141 may be applied toward the required or elective category but not toward both).

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade.

Honors Program

Admission

The honors program provides exceptional Molecular, Cell, and Developmental Biology majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission to the honors program. Students must have the sponsorship of an approved faculty adviser.

For further information and application forms, students should consult the Student Affairs Office, 2128 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 approved undergraduate seminar course from Molecular, Cell, and Developmental Biology 191 and three research courses (12 units minimum) from 198A, 198B, and 198C, culminating in a thesis.

To qualify for graduation with honors, students must satisfactorily complete all requirements for the honors program and the major and obtain at least an overall 3.0 grade-point average and a 3.5 GPA or better in coursework required for the major. On recommendation by the faculty sponsor and with approval of the thesis by the departmental honors committee, students are awarded no honors, departmental honors, or highest departmental honors.

At the discretion of the departmental honors committee, students who have (1) a GPA of 3.6 or better, both overall and in the major and (2) demonstrated exceptional accomplishment on the research thesis are awarded highest departmental honors.

Computing Specialization

Majors in Molecular, Cell, and Developmental Biology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor's degree in the major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186 or Ecology and Evolutionary Biology 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://grad.ucla.edu/gasad

Graduate Degrees

The Department of Molecular, Cell, and Developmental Biology offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Molecular, Cell, and Developmental Biology.

Molecular, Cell, and Developmental Biology

Lower Division Courses

40. AIDS and Other Sexually Transmitted Diseases. (5) Lecture, three hours; discussion, one hour; experiential service learning, one hour. Biology of HIV blended with socioeconomic problems associated with AIDS. Discussion of contemporary public health approaches to characterizing and addressing of HIV epidemics, as well as of other sexually transmitted diseases. P/NP or letter grading.

50. Sociobiology, Population, and Ethics: Teasing Apart Issues. (5) Lecture, three and one-half hours; discussion, 90 minutes. Developmental biology of various types of human stem cells. Important functional differences between embryonic, hematopoietic, and adult stem cells, as well as differences in their
biomedical potentials. Discussion of history of debate surrounding embryos, as well as various social, ethical, political, and economic aspects of stem cell research. P/NP or letter grading.

60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and exploration of how and why bioethics is relevant to current research. May not be repeated for credit.

70. Genetic Engineering and Society. (5) Lecture, four hours; discussion, one hour. Designed for nonmajors. Not open to students with credit for Life Sciences 3 or 4. Basic principles of genetic engineering. Overview of genetic engineering concepts and specific applications of genetic engineering to medicine, agriculture, law, and society. Emphasis on genetic engineering history and foundations to generate discussion on its use in society. P/NP or letter grading.

80. Green World: Plant Biology for Now and Future. (5) Lecture, two and one half hours; laboratory, two half hours. Enforced requisite to 104BL, or to students with credit for course M140 or 145A. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, membrane transport, cell signaling, cytoskeleton and cell movement, intracellular trafficking, cell energetics. Letter grading.

Upper Division Courses

100. Introduction to Cell Biology. (5) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 3, 4, 23L. Enforced corequisite: Chemistry 153A. Not open for credit to Molecular, Cell, and Developmental Biology majors or to students with credit for course M140 or 145A. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, membrane transport, cell signaling, cytoskeleton and cell movement, intracellular trafficking, cell energetics. Letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. (Formerly numbered 104L.) Lecture, five hours; discussion, one hour. Enforced requisite: Life Sciences 3, 4, 23L. Course 104AL is enforced requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Discovery-based research using sea urchin as model system. Students determine expression of unstudied sea urchin genes using combination of molecular biology and computational techniques. May not be repeated for credit. Letter grading.

104BL. Advanced Research Analysis in Developmental Biology. (4) Laboratory, six hours. Enforced requisite: course 104AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, extract, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments designed to answer specific questions. May not be repeated for credit. Letter grading.

120. Introduction to Plant Biology. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Introduction to plant biology, as well as to concepts and techniques in molecular biology and genetics. Letter grading.


M140. Cell Biology: Cell Cycle. (5) Same as Biological Chemistry M140). Lecture, three hours; discussion, one hour. Requisites: Chemistry 1A, 1B, and 14BL, or courses 20B or 20L, 5, 3, 4, 23L. Not open for credit to students with credit for course 100, 165A, or 165B. Satisfies premedical requirements. Eukaryotic cellular structures and biogenesis at the molecular, cellular, and organismal levels. Focus on major aspects of cell cycle, signal transduction, and their involvement in development and cancer. Letter grading.

C141. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, 23L. In-depth study of gene regulation and development and in plants and molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on developing critical understanding of current experimental basis for research in this field. Concurrently scheduled with course C239. Letter grading.


143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; discussion, one hour. Requisite: course M140. Analysis of intrinsic and extrinsic factors that influence cellular and molecular basis of animal embryology, with primary emphasis on vertebrate organ development, but including pertinent material from Drosofila and other invertebrate model organisms. Letter grading.

144. Molecular Biology of Cellular Processes and Experimental Applications of Theory. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, 23L. Not open for credit to students with credit for Chemistry 153B. Development of thorough understanding of fundamentals of modern molecular biology, both from perspective of known molecular mechanisms for regulating fundamental processes in cells and from theoretical applied perspective for using molecular biology as laboratory tool. Special emphasis on molecular mechanisms that relate to chromatin and histone modifications, DNA replication and repair, transposition, microRNAs, meiosis, and splicing. Application of molecular biology as tool to understand evolution, reprogramming, cancer, and stem cells. Development of sophisticated understanding of DNA, RNA, and protein as well as capability of designing experiments to address fundamental questions and interpreting experimental data. Letter grading.

C150. Plant Communication. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 3, 4. Most people think of plants as static organisms, yet they live in world of symbiosis and community. Plants change atmosphere, enrich soil, and communicate with insects, bacteria, and each other. Earth’s ultimate symbiote. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to maximize access in sustainable manner. Introductory course in chemical ecology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/animal, and plant/plant interactions. Understanding principles of plant defense mechanisms and responses to microbial infections. Concurrently scheduled with course C250. P/NP or letter grading.

150AL. Research Analysis for Plant Microbe Ecology. (5) Formerly numbered 150L. Laboratory, four hours. Enforced requisite: course C150. Course 150AL is enforced requisite to 150BL. Limited to students in Biophysics, Molecular Biology, and Microbiology, Immunology, and Molecular Genetics majors. Introductory plant biology laboratory to give students hands-on experience doing experiments and making their own observations about plant biology. Letter grading.

150BL. Advanced Research Investigations in Plant-Microbe Ecology. (4) Laboratory, six hours. Enforced requisite: courses C150, 150AL. Limited to Molecular, Cell, and Developmental Biology, Immunology, and Molecular Genetics majors. Analysis and presentation of data obtained in course 150AL. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Discussion of scientific method, research process, and how science relates to daily lives. Letter grading.


CM156. Human Genetics. (4) Same as Human Genetics CM156 and Microbiology CM156). Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Application in human populations, with emphasis on cyto genetics, bio chemical genetics, population genetics, and family studies. Lectures and readings in literature, with focus on various questions in understanding human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

162. Genetic Control of Animal Behavior. (5) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 4, two upper division molecular, cell, and developmental biology or neuroscience courses. How do worms something smells good or bad? What happens in brain of fly when it is exposed to alcohol? How does fish embryo decide whether to respond to touch by swimming left or right? How do worms decide whether something is food or not? These are just a few of the many questions that scientists now ask how genes make neural circuits work and how variety of cutting-edge genetic and molecular techniques. Survey of recent primary literature that applies these approaches to three models: olfaction in nematode worms, alcohol-induced behavior in fruit flies, and motor responses in zebrafish. Letter grading.

165A. Biology of Cells. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14D or 30B, Life Sciences 3. Not open for credit to students with credit for course 100 or M140. Cellular basis of cellular structure and function, with focus on each individual cellular organelle, as well as interaction of cells with extracellular environment and with other cells. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.

165B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, two hours. Requisites: course 165A, Chemistry 14D or 30B, Life Sciences 3. Continuation of course 165A. Molecular basis of cellular structure and function, with focus on each individual cellular organelle, as well as interaction of cells with extracellular environment and with other cells. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.
168. Stem Cell Biology. (5) Lecture, three hours; discussion, one hour. Enforced requisites: courses 138, 153L, 154, 144. Recommended: courses 145B or (Microbiology 132). State-of-art education of embryonic and adult stem cells and how these pluripotent/multipotent cells can be used to treat congenital defects, diseases, or injury in humans. Review of current knowledge on embryonic and adult stem cells and how they develop into various tissue types. Discussion of adult stem cells in hematopoietic, nervous, and other systems to provide a framework of tissue-specific stem cells and their impact in human disease. Examination of various model organisms as examples of how model organisms have helped to discover fundamental principles in stem cell biology. How advances in cell and molecular biology and tissue modeling are being applied to use of stem cells in regenerative medicine. Ethical and legal issues related to stem cell research. Letter grading.

M170. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) (Same as Chemistry CM170.) Lecture, two to three hours; discussion, zero to two hours. Requisites: Chemistry 153A or 153B, or Life Sciences 3, and Chemistry 153L. Recommended: Chemistry 153C, 154, Life Sciences 4. Light harvesting, photochemistry, electron transfer, carbon fixation, carbohydrate metabolism, pigment structure and function, and regulation of photosynthetic membranes and membrane organization. Emphasis on understanding of experimental approaches. P/NP or letter grading.

172. Genomics and Bioinformatics. (5) Lecture, three hours; discussion, one hour. Requisite: course 144 or 165B or Chemistry 153B or Microbiology 132. Genomics is study of complete repertoire of molecules in eukaryotes and human and yeast genomic sequences and genetic approaches to study function of individual genes, functional genomics algorithm and methods used to study relationship between nucleotide and protein sequences and re- construction of their functions. Students propose original research projects related to gene annotation and their projects using bioinformatics tools. Latest assembly of DNA and RNA from Cyclotelia Cryptica, algae organism, which has limited genome annotation information available, to be provided. May not be repeated for credit. Letter grading.

187BL. Advanced Research Analysis in Genomic Biology Laboratory. (Same as course 187AL.) Lecture, three hours. Enforced corequisite: course 187AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Continuation, completion, and refinement of research project. Letter grading.

188A-188B. Special Courses in Molecular, Cell, and Developmental Biology. (2-2) Seminar, two hours. Corequisite for course 188A: course 179A or Microbiology 179B; for 188B: course 196B or Microbiology 196C. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188C. Special Designes in Molecular, Cell, and Developmental Biology. (4) Lecture, five hours. Requisite: course 104 or 150L or 187A. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

190A-190B-190C. Joint Research Colloquia. (1-1-1) Seminar, two hours. Corequisite: course 190A or 190B or 190C or 199A or 199B. Limited to junior/senior. Designed to bring together students undertaking supervised tutorial research in model systems in joint laboratory meeting/seminar setting with one or more departmental faculty members whose laboratories are working on same or related model systems. Discussion and presentation of student work or related work in discipline to encourage more sophisticated understanding of most current topics in research. May be repeated for credit with topic change. Letter grading.

191. Variable Topics Research Seminars: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Designed for junior/senior departmental majors. Intended for students with strong commitment to pursue graduate studies in molecular, biochemical, physiological, and biomedical fields. Weekly variable topics course with reading, discussion, and presentation of paper selected from current literature. May be repeated once for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (4) Seminar, three hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervision for advanced related model organisms. P/NP or letter grading. 190A. Plant Model Systems; 190B. Invertebrate Model Systems; 190C. Vertebrate Model Systems.

195. Advanced Genetics and Molecular Biology. (5) Lecture, four hours; discussion, one hour; laboratory, six hours; research group meeting, two hours. Enforced requisites: courses 104 or 150L or 187A. Limited to Molecular, Cell, and Developmental Biology majors. Enforced corequisite: course 104 or 150L or 187A. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. Letter grading.

196B. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (4) Seminar, three hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervision for advanced related model organisms. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

198B. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (4) Seminar, three hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervision for advanced related model organisms. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.
plied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

193. Journal Club Seminars in Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199A or 199B or 199C. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members. Supervised individual research under guidance of faculty mentor. Studies to involve laboratory research, not literature surveys or library research. Analysis of current experimental approaches in study of DNA replication, transcription, and translation. S/U or letter grading.

M230B. Structural Molecular Biology. (4) (Same as Chemistry M230B.) Lecture, three hours; discussion, one hour. Prerequisites: M140, 144, Life Sciences 4. Selected topics from principles of biological structure; structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonic analysis of biopolymer conformations; 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 experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.


Graduate Courses

M220. Cell, Developmental, and Molecular Neurobiology. (6) (Formerly numbered CM220.) (Same as Neuroscience M220 and Neurosciences M220.) Lecture, six hours. Prerequisites: Life Sciences 3, 4, 138 or 139 or 144 or 148, Life Sciences 4. Recent developments in fields of molecular, cell, and developmental biology. Concurrently scheduled with course C150. S/U or letter grading.

C222A-C222D. Advanced Topics in Cell and Molecular Biology. (2 each) 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 course C150. S/U or letter grading.


C224. Molecular Basis of Vascular Biology. (4) Lecture, four hours; discussion, one hour. Prerequisites: Life Sciences 3, 4. Developmental and pathological aspects of vascular biology. Presentation and discussion of key questions of vascular biology with mechanistic viewpoint. Emphasis on experimental approaches and current research in field. Introduction to several model systems along with presentation of specific topic. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches and model organisms. Letter grading.


C239. Molecular Basis of Plant Differentiation and Development. (6) Lecture, three hours; discussion, one hour. Prerequisites: Life Sciences 1, 3, 4, 23L. In-depth study of basic processes of growth differentiation and development in plants and molecular mechanisms underlying these processes. Emphasis on analysis of various aspects of plant systems, with focus on developing critical understanding of current experimental basis of research in this field. Concurrently scheduled with course C250. S/U or letter grading.

C240. Cytokines and Reproductive Biology. (2) (Same as Microbiology M240.) Lecture, 90 minutes; discussion, one hour. Overview of current progress on research in cytokines and other immune system molecules in reproductive biology. S/U or letter grading.

C242. Topics in Neurobiology. (4) Lecture, three hours. Prerequisite: course 171. Selected current problems in neurobiology discussed in terms of emphasis on analysis of original papers. May be repeated for credit. Letter grading.

C250. Plant Communication. (4) Lecture, three hours; discussion, one hour. Prerequisites: Life Sciences 3, 4. Most people think of plants as static organisms, yet they live in world of symbiosis and community. Plants change atmosphere, enrich soil, and communicate with insects, bacteria, and other — Earth’s ultimate symbiote. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and economists now recognize that beyond obvious need to grow aboveground biomass for fuel production, we must better understand how to make that biomass in sustainable manner. Introductory course in chemical ecology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/plant, and plant/herbivore interactions; synop- sis of principles of plant defense mechanisms and re- sources to microbial communities. Concurrently scheduled with course C250. S/U or letter grading.

254. Seminar: Plant Morphogenesis. (2) Seminar, two hours. S/U or letter grading.

255. RNA Editing. (4) Lecture, two hours; discussion, one hour. Prerequisites: knowledge of molecular biology and molecular genetics. Discussion of diverse set of novel RNA modification phenomena known as RNA editing. Topics include U insertion/deletion type of editing in trypanosome mitochondria, C to U substitution editing in apo B mRNA and plant mitochondria,
primary research articles to learn to critically evaluate research papers and to organize and present seminars on specific research topics. S/U or letter grading.

296. Advanced Topics in Molecular, Cellular, and Developmental Biology. (2) Discussion, three hours. Advanced study and analysis of current topics in cell, molecular, and developmental biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

297. Advances in Molecular Analysis of Plant Development and Plant/Microbe Interactions. (2) Discussion, two hours. Recent advances in plant molecular biology, with emphasis on control of gene expression during plant development and in plant/microbe interactions. S/U grading.

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

495. Preparation for Teaching Molecular, Cell, and Developmental Biology in Higher Education. (2) Seminar, two hours. Designed for graduate students. Study of problems and methodologies in teaching molecular, cell, and developmental biology, including workshops, seminars, apprentice teaching, and peer observation. S/U grading.

596. Directed Individual (or Tutorial) Studies. (2 to 12) Tutorial, to be arranged. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.


Molecular, Cellular, and Integrative Physiology

Interdepartmental Program
College of Letters and Science
David Geffen School of Medicine

UCLA
125 Hershey Hall
Box 724605
Los Angeles, CA 90095-7246
(310) 825-3891
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James G. Tidball, Ph.D., Chair

Faculty Committee
Mark A. Frye, Ph.D. (Integrative Biology and Physiology, Neurobiology)
David L. Glanzman, Ph.D. (Integrative Biology and Physiology, Neurobiology)
Thomas J. O’Dell, Ph.D. (Physiology)
James G. Tidball, Ph.D. (Integrative Biology and Physiology, Pathology and Laboratory Medicine)
Yibin Wang, Ph.D. (Anesthesiology, Physiology)
Nancy L. Wayne, Ph.D. (Physiology)

Scope and Objectives

Physiology is the study of the functional processes that collectively constitute life. The study of physiology may 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 knowledge both in the basic biological sciences and in biomedical sciences and provides an essential foundation for the practice of medicine.

The primary objective of the interdepartmental Molecular, Cellular, and Integrative Physiology Program is to train a new generation of physiologists who apply modern knowledge in molecular and cellular biology and systems physiology to important questions in organismic function. Students learn to conceptualize physiological questions across several levels of organization and to understand how research strategies incorporating each of the levels of analysis can be formulated. This approach to physiology education is responsive to the need for physiologists who can intellectually and technically span disciplines related to physiology that are typically separated.

Coursework consists of formal instruction in the most current information in molecular biology, cell biology, and the molecular and cellular foundations of physiology. In addition, students identify an area of emphasis in biophysics, cellular and molecular biology, or integrative/ comparative physiology in which additional studies are pursued. The heart of the program, however, is the research that leads to the dissertation, which is performed under the guidance of a faculty mentor. The program faculty includes more than 60 professors in the Geffen School of Medicine and College of Letters and Science. Collectively they have been recently ranked by the National Research Council in the top five in the U.S. for their quality as an academic faculty.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. 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

M200G. Biology of Learning and Memory. (4) (Same as Neurobiology M200G, Neuroscience M220, and Psychology M208.) Lecture, four hours. Mole- lular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplin- ary focus on learning and memory to provide integra- tive view of subject that emphasizes emerging find- ings that take advantage of novel groundbreaking models. Letter grading.

M215. Molecular and Cellular Foundations of Physiology. (5) (Same as Physiology Science M215.) 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 from molecular to macroscopic. Letter grading.


249. Seminar: Pathogenic Mechanisms in Muscle Disease. (2) Seminar, two hours. Recent advances have been made in genetic identification of molecular basis of muscle disease, and some mechanisms in- volved have been elucidated. Focus on muscle dis- eases in which substantial mechanistic information has been obtained, including particular cellular loca- tions and diseases associated with those locations. Topics include Duchenne muscular dystrophy, con- genital muscular dystrophy, limb girdle dystrophy, Ull- rich myopathy, and other forms of genetically inherited muscle disease. S/U grading.


M252B. Seminar: Molecular Mechanisms of Hu- man Diseases I. (2) (Same as Pharmacology M252B.) Seminar, two hours. Corequisite: course M252A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.

M252A. Molecular Mechanisms of Human Diseases II. (4) (Same as Pharmacology M252A.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M252B. Funda- mental concepts and methodologies in modern bi- ology, with emphasis on implications and relevance to human disease and integration of biology with mecha- nisms underlying disease development and applica- tions in therapy as they apply to neurologic, cardio- vascular, and metabolic diseases. Letter grading.

M262B. Seminar: Molecular Mechanisms of Hu- man Diseases II. (2) (Same as Pharmacology M262B.) Seminar, two hours. Corequisite: course M262A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M262A. Letter grading.

290A-290B-290C. Tutorials. (4-4-4) Tutorial, two hours. Discussion, analysis, and critique of original re- search literature. Letter grading. 290B, Cellular and Molecular Physiology; 290C, Inte- grative and Comparative Physiology.

296. Research Seminar. (2) Seminar, to be ar- ranged. Review of literature, discussion of original re- search, and analysis of current topics in molecular, cellular, and integrative physiology. May not be ap- plied toward Ph.D. course requirements. May be re- peated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice person- nel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsi- ble for curriculum and instruction at UCLA. May not be applied toward Ph.D. course requirements. May be re- peated 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 Examina- tions. (2 to 10) Tutorial, to be arranged. May not be applied toward Ph.D. course requirements. May be re- peated for credit. S/U grading.

599. Research for Ph.D. Dissertation. (2 to 10) Tu- torial, to be arranged. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U grading.

The Molecular Toxicology Program offers the Doctor of Philosophy (Ph.D.) degree in Molecular Toxicology.

Molecular Toxicology

Upper Division Courses

M101A. 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 stu- dents, emphasizing drug development and mecha- nisms of action of drugs and toxic agents. Letter grad- ing.

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

Graduate Study

Official, specific degree requirements are de- tailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrintro.htm. In many cases, more detailed guidelines may be outlined in an- nouncements, 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.

Scope and Objectives

Faculty from 15 departments and schools at UCLA, including Chemistry and Biochemistry, Environmental Health Sciences, Epidemiology, Medicine, Molecular and Medical Pharmacol- ogy, and Pathology and Laboratory Medicine, have joined forces to create an interdisciplinary Ph.D. program in Molecular Toxicology that is administered through the Fielding School of Public Health.

Specialties within the program include, but are not limited to, neurotoxicology, nanotoxicology, developmental toxicology, genetic toxicology, and carcinogenesis. There is a particular em- phasis on mechanisms of toxicology, since it is now widely accepted that understanding mech- anisms 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 cre- ation and growth of the chemical industry. How- ever, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The discipline of toxicol- ogy, which seeks to characterize and elucidate the mechanisms of the problems related to ex- posure of chemical agents, has also developed from a purely descriptive to a mechanistic sci- ence whose objective is to understand the ba- sis of toxin action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phe- nomena, and the growth of the sophistication of toxicology has paralleled the increase in knowl- edge derived from the basic chemical and bio- logical sciences.
**Graduate Courses**

211A-211B-211C. Molecular Toxicology Seminars, (1-1-1) Seminar, one hour twice a week. Seminar series which alternates features outside speakers and members of UCLA molecular toxicology community (students, postdoctoral fellows, and faculty) and deals with topics relevant to molecular toxicology. In Progress (211A, 211B) and S/U (211C) grading.

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. (2) (Same as Environmental Health Sciences M242.) Lecture, one hour; discussion, one hour. Preparation: undergraduate biology and chemistry courses. Requisite: Environmental Health Sciences C240. Examination of recent literature on mechanisms of toxicity or toxicodynamics. Student presentation of papers selected by instructor on various aspects of toxic mechanisms, including free radical mechanisms, mechanisms of cell death, metal toxicity/on homeostasis, intracellular pH and calcium regulation, stress and adaptive pathways, DNA repair/mutation, carcinogenesis, and teratogenesis. Discussion of various papers. S/U or letter grading.

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.

M246. Molecular Toxicology. (4) (Same as Environmental Health Sciences M246.) Lecture, four hours. Enforced requisite: Environmental Health Sciences C240. Further development of toxicology and an in-depth understanding of toxicological processes with research-oriented outlook. Dissemination of information about important molecular toxicological topics to make students think about them from research perspective. Students learn about cutting-edge research areas of molecular toxicology, how to most optimally extract important information from research papers, how to construct logical arguments to formulate alternative hypotheses for data in papers, how to formulate ideas for future research, and how to express their ideas effectively in oral settings. Letter grading.

296A-296G. Research Topics in Molecular Toxicology. (2 each) Research group meeting, two hours. Advanced study and analysis of current topics in molecular toxicology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296A. Chemical Toxicology.

296B. Molecular Carcinogenesis.

296C. Teratogenesis.

296D. Molecular Toxins in Boron Biology.

296E. Germ Cell Cytogenetic/Genetic Biomarkers.

296F. Genetic Toxicology.

296G. Laboratory Analysis.

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

597. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

599. 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.

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**MOVING IMAGE ARCHIVE STUDIES**

Interdepartmental Program

Graduate School of Education and Information Studies and School of Theater, Film, and Television

UCLA

103G East Melnitz Building

Box 951622

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(310) 206-4966

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Jonathan Furner, Ph.D., Chair

Faculty Committee

Alyson N. Field, Ph.D. (Film, Television, and Digital Media)

Jan-Christopher Horak, Ph.D. (Film, Television, and Digital Media)

Ellen J. Pearstein, M.A. (Information Studies)

Steven Ricci, M.A., Ph.D. (Film, Television, and Digital Media)

**Scope and Objectives**

The Moving Image Archive Studies M.A. is an interdepartmental degree program offered jointly by the Department of Information Studies in the Graduate School of Education and Information Studies and the cinema and media studies faculty of the Department of Film, Television, and Digital Media in the School of Theater, Film, and Television. The program is an intensive, specialized two-year course of study consisting of graduate seminars, directed studies, and an extensive practicum program, as well as special topic screenings, guest lectures, and technical demonstrations. The program is also affiliated with the UCLA Film and Television Archive.

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 moving image media. Examination and evaluation of critical preservation problems such as nitrate deterioration, color fading, vinylizer syndrome, and irreplaceable formats. Exploration of case studies of specific restoration projects through critical before and after studies, with focus on crucial ethical issues embedded within each technical and aesthetic decision facing restorers. Of special interest is question of whether it is possible and appropriate to speak of particular schools and/or philosophies of restoration. Range of key issues addressed, such as originality and formative work in various forms of moving image expression. Lectures combined with extensive presentations of full range of an...
http://www.music.ucla.edu

Michael E. Dean, M.M., Chair

Professors
Roger Bourland, Ph.D.
Kenneth E. Burrell, B.A.
Vladimir Chernov, M.M.
Paul S. Chihara, Ph.D.
Juliana K. Gondek, M.M.
Gary G. Gray, M.M.
Gordon Henderson, M.M.E.
Peter D. Kazazas, J.D.
Ian Krouse, D.M.A.
Jens H. Lindemann, M.M.
Antonio Lysy
Donald Neves, M.A.
Moyes Pogossian, D.M.A.
Walter Poncé, D.M.A.
Neal H. Stulberg, M.A.
Guillaume B. Sutre, M.M.
Robert S. Winter, Ph.D. (Presidential Professor of Music and Interactive Arts)

Professors Emeriti
Elaine R. Barkin, Ph.D.
D. Thomas Lee, D.M.A.
Paul E. Des Marais, M.A.
Maurice Gerow, Ph.D.
Frederick F. Hammond, Ph.D.
Thomas F. Harmon, Ph.D.
Henri Lazarof, M.F.A.
Paul V. Reale, Ph.D.
Jon Robertson, D.M.A.
Roy E. Travis, M.A.

Associate Professors
Michael E. Dean, M.M.
Frank Heuser, Ph.D.
David S. Lefkowitz, Ph.D.

Senior Lecturers S.O.E.
Sheridon W. Stokes
Paul O. Tanner, Ph.D., Emeritus

Lecturer S.O.E.
Maureen D. Hooper, Ed.D., Emerita

Senior Lecturer
John L. Hall, M.M., Emeritus

Lecturers
Gloria C. Cheng
Chris J. Cooper
Jothahan D. Davis, D.M.A.
Margaret M. Flanagan Lysy
Don Franzen, J.D.
Raketei R. Haki, M.M.
Kanae Matsumoto
James T. Miller
Lou Anne Neill, M.A.
Richard O’Neill, M.A.
Mitchell T. Peters, M.M.
Jean-Louis Rodrique
Patrick R. Sheridan, M.A.
John A. Steinmetz, M.A.

Adjunct Professors
Christopher Hanulik, B.M.
Jennifer Judkins, Ph.D.
Douglas H. Masek, D.M.A.

Adjunct Associate Professors
Christopher Bull, D.M.A.
Mark C. Carlson, Ph.D.
Jennifer L. Snow, D.M.A.
Peter F. Yates, D.M.A.

Adjunct Assistant Professor
Judith I. Hansen, B.A.

Scope and Objectives
The Department of Music provides undergraduate and graduate training in Western classical music, with concentrations in composition, music education, and performance. Jazz performance is also offered at the graduate level. The department is aligned with the Departments of Ethnomusicology and Musicology and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

The four-year Bachelor of Arts curriculum in Music is a classically oriented, balanced program of practical, theoretical, and historical studies, with related performance and academic studies in non-Western music. The major, designed for students who want to combine fine musicianship with academic excellence, is based on a core curriculum of theory, history, analysis, and individual and group performance. Given in the context of a liberal education, this 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, collaborative piano, and conducting. Jazz performance is offered at the master’s degree level.

Students interested in a concentration in music history and literature should consider the 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.
first-year music core courses (Music M10A, M10B, M10C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M10A and 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Placement Assessment Examination.

Required (for all concentrations except music education): Music M10A, M10B, M10C, with grades of C or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 65, and three years (18 units) of foreign language courses with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 65, and three years (18 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. In addition, students are required to take one college year or at least one course at level three — of French, German, Italian, or Spanish, which may be used to fulfill the school language requirement.

Music Education: Music M10A, M10B, M10C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 65, and three years (18 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. In addition, students are required to take one college year or at least one course at level three — of French, German, Italian, or Spanish, which may be used to fulfill the school language requirement.

The Major

Required (for all concentrations): Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and courses selected from one of the concentrations listed below.

Composition: A minimum of 41 upper division units, including Music 104A or 104B, 106A, 106B, 116, 123A, 123B, 123C, 127E, and at least 8 elective units selected from courses 104A or 104B (if not already taken), 117, C118A, C118B, additional terms of 123A, 123B, 123C, 124A or 124B or 124C (if not already taken), 197, Ethnomusicology 117, 136A, C136B, 146, C156A, 156B, 157, 158A, 158B, 158C, 160, 170, 181. A capstone senior recital, to be preceded by one capstone scoring course (Music 124A or 124B) and to include at least 30 minutes of original music, is also required (exceptions by petition only).

Music Education: A minimum of 37 upper division units, including Music 100A, 100B, 100C, 110, 111A, 114A through 114H, 116, 117 (or C118A), 119, and three courses from 160A through 165. During each term in which students take private lessons, they must participate in a performance organization for a letter grade, utilizing their major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. A capstone senior recital, that may be held as early as Fall Quarter of the junior year, is also required.

Performance: Twelve units in performance instruction from Music 160A through 165 (including junior and senior recital requirements); 4 units of chamber ensembles (Music C175); 4 units of elective courses from 106B, 116, 117, C118A, C118B, 197, Ethnomusicology M108A, 108B, 120A, 120B, 121, 170, Music History 130, 135A, 135B, 135C, 191A through 191G; and one upper division elective course in music. During each term in which students take private lessons, they must participate in a performance organization for a letter grade, utilizing their major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member.

Theory: Six courses selected in consultation with a faculty adviser.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmnintro.html. 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.), Candidate in Philosophy (C.Phi), 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 nonmusic majors. P/NP or letter grading. 1A. Introduction to elements of music: pitch and rhythm symbols, meter and time signatures, notation, scales, intervals, and chord structure. 1B. Prerequisite: 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. Letter grading.

2. Preparatory Music Theory. (4) Lecture, four hours; laboratory, one hour. Course in music fundamentals, including musicianship, theory, and terminology. Letter grading.

3. 1A-4B-4C. Basic Musicianship. (2-2-2) Studio, three hours. Class instruction in elementary ear training and keyboard skills. P/NP or letter grading.

5. Beginning Voice Class. (2) Studio, four hours; outside practice and preparation, two hours. Not open to voice majors. Correct singing techniques, including vocal mechanism, posture and breathing, musical warm-ups, optimal vocal production, diction, and performance delivery to be put into practice in classroom study, vocal exercises, and performances. Final recital with piano accompaniment required. May be repeated for maximum of 12 units with a grade of C in each course. Letter grading.

7. Understanding Movie Music. (4) Lecture, four hours; outside study, eight hours. Musical experience helpful, but not required. Brief historical survey of film music, with strong emphasis on recent development: Japanese animation, advertising, and MTV, as well as computer tools and digital scoring methods. Designed to inspire and inform those interested in movie music. Offered in summer only. P/NP or letter grading.

8G. Graduate Piano Sight-Reading. (2) Studio, two hours. Limited to graduate students. Designed to help entering graduate students remedy entrance deficiencies. To be cleared by examination. May be repeated. S/U grading.

M10A-M10B-M10C. Introduction to Music: History, Culture, Creativity. (4-4-4) (Same as Ethnomusicology M107B-M107C-M107D) Lecture, two hours; laboratory, four hours. Preparation: placement examination. Course M10A is enforced requisite to M10B, which is enforced requisite to M10C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to study of music from three complimentary perspectives: its history, relation to culture, and creative/constructive structuring. Lectures from musicologists, ethnomusicologists, and composers/theorists combined with small sections in which students develop wide range of musicianship skills. Organized around broad ideas (performance, simultaneity, time, place, and more) where creative and cultural implications are explored through analysis and discussion of broad repertoire of musical works spanning historical eras and global cultures. Compositional exercises, production of short compositions, and short papers dealing with historical and cultural issues required. Letter grading.

15. Art of Listening. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisition of listening skills through directed listening and performance, performers, and composers. Relationship of listening to theoretical, analytical, historical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.


20A. Music Theory I. (3) Lecture, four hours. Preparation: passing score on departmental examination. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. Students must receive grade of C or better to proceed to next course in sequence. Theory: species counterpoint through fifth species; description of triads and inversions. P/NP or letter grading.

20B. Music Theory II. (3) Lecture, four hours. Enforced requisite: course 20A with grade of C or better. Theory: diatonic harmony and triads in secondary dominants and diminished sevenths; modulations to dominant and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduction to figured bass notation. P/NP or letter grading.

20C. Music Theory III. (3) Lecture, four hours. Enforced requisite: course 20B with grade of C or better. Theory: chromatic harmony including development of tonality, 1800 to 1850; appropriate analysis and style composition. P/NP or letter grading.

60A-65. Undergraduate Instruction in Performance. (2 each) Studio, one hour. Limited to Music majors (all freshman/sophomore majors, and junior/senior majors not in performance specialization). Individual instruction. Students must perform in one practical acumen during academic year. Grades are assigned by applied instructor in Fall and Winter Quarters and by jury examination in Spring Quarter. May be repeated for credit. P/NP or letter grading. 60A. Viola; 60B. Viola; 60C. Cello; 60D. String Bass; 60E. Harp; 60F. Classical Guitar; 60G. Viola da gamba; 60H. Lute; 61A. Flute; 61B. Oboe; 61C. Clarinet; 61D. Bassoon; 61E. Saxophone; 62A. Trumpet; 62B. French Horn; 62C. Trombone; 62D. Tuba; 63. Percussion. 64A. Piano; 64B. Organ; 64C. Harpsichord; 65. Voice.

80A. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Simple keyboard skills combined with basic aspects of music theory and its practical application to keyboard: sight-reading, tonality, chords, scales, cadences, simple
compositions, and improvisations. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80B. Intermediate Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Enforced requisite: course 80A. Review of basic keyboard concepts, with focus on developing comprehensive keyboard musicianship ranging from music theory, sight-reading, composing, improvising, analysis of form, study of musical terms and notations, chords, scales, cadences, transposing, and ear training. Offered in summer only. P/NP or letter grading.

80F. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for guitar; coverage of note reading and tablature. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80V. Vocal Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Voice instruction for singers at beginning to intermediate level. Exploration of fundamentals of vocal technique, including overview of basics of proper breath control, resonance, care of voice, diction, and interpretation. Beginning vocal repertoire used as vehicle for understanding and interpretation. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80W. Woodwind Technique for Beginners. (4) Laboratory, four hours; preparation/practice, six hours. Woodwind instruction given to design students knowledge of fundamental concepts and techniques of the specific instrument. Corequisite: course 80A. Letter grading.

M87. Special Courses in Music. (5) (Same as Ethnomusicology M87 and Music History M87.) Lecture, four hours; discussion, four hours. Limited to under-graduate Ethnomusicology, Music, and Music History majors and upper-divisional music majors and minors. Corequisite: course 80A. Letter grading.


90L. Music Theater Workshop. (2) Activity, six hours. Preparation: audition. Rehearsal and performances of complete musical theater productions, including repertoire and stage movement coaching. 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.

90N. Jazz Ensemble. (2) Activity, three hours. Preparation: audition. Group performance of jazz and popular music in ensembles of 20 to 30 instruments. May be repeated for credit without limitation. P/NP or letter grading.

90P. Alexander Technique. (2) Lecture, four hours; outside preparation and practice, two hours. Limited to Music majors. Introduction to principles of Alexander technique. Study of musician's postural attitude at instrument. The relation of this technique and voice to instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C484. P/NP or letter grading.

90Q. Guitar Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. P/NP or letter grading.

90S. Harp Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. P/NP or letter grading.

90T. Early Music Ensemble. (4) Same as Music History CM90T. Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early instruments may be used at instructor's discretion. May be repeated for credit without limitation. 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. Lecture stresses role of music education in American society; historical, philosophical, and theoretical study and analysis of philosophy, history, organization, curriculum, and literature of music programs for secondary schools in American education. Each course may be taken independently for credit grading. 100A. General Music; 100B. Choral Music; 100C. Instrumental Music.

104A. Modal Counterpoint. (3) Lecture, three hours. Requisite: course 120G (accelerated section). In-depth exploration of styles and techniques of counterpoint of 15th and 16th centuries through writing and analysis of important forms of period, including species, canon, free counterpoint, cantus, firmus, point of imitation, motet, ricercare, etc. Letter grading.

104B. Special Topics in Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In-depth exploration of styles and textures since 1750, with emphasis on late-19th and 20th-century modes of expression, through writing and analysis. Letter grading.


106B. Orchestration II. (4) Discussion, three hours. Requisites: courses 106B, 120A (accelerated section), 123C. Scoring and analysis for ensembles and full orchestra. P/NP or letter grading.

110. Learning Approaches in Music Education. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Introduction to concepts and skills central to teaching music. Exploration of three modes of music learning: learning through notation, oral transmission, and imitation. Study of improvisation and communal composition using clarinet and guitar. Evaluation of experiences in context of major learning theories. Letter grading.

111A. Technology in Music Education I. (1) Laboratory, three hours. Requisite or corequisite: course 111C. Survey of music education software and hardware 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 development of basis sequencing techniques. Letter grading.

111B. Technology in Music Education II. (1) Laboratory, three hours. Requisite: course 111A. Introduction to instructional uses of computers in music classroom. Emphasis on practical information necessary to intelligently purchase and implement microcomputers in schools, including training in arranging, multimedia production, and classroom integrated technologies. Additional topics include teaching, learning, and technology planning. Letter grading.

112. Career Field Experiences in Music Education. (1) Field studies, three hours. Initial field experiences for students preparing to teach and earn single subject certification in music. Novice teachers work under direct guidance of UCLA music education faculty members and experienced school instructor to develop and deliver instruction in K-12 settings. P/NP grading.

114A-114I. Study of Instrumental and Vocal Techniques. (4) (Same as Music History CM118A.) Study of requisite or corequisite: course 20A. Applied studies in basic performance techniques and tutorial materials. Each of courses 114A through 114I may be repeated once for credit. Letter grading. 114A, High Strings; 114B, Low Strings; 114C. Flute and Saxophone; 114D. Double Reeds; 114E. Trumpet and Trombone; 114F. Horn and Tuba; 114G. Snare Drum; 114H. Other Percussion; 114I. Voice.


117. Study and Conducting of Instrumental and Choral Literature. (2) Lecture, three hours. Requisite: course 116. Study and practice of conducting both instrumental and choral repertoire. In addition to further development of conducting gestures, focus on score study techniques, rehearsal techniques, style, and interpretation as applied to choral and instrumental repertoire. Letter grading.

C118A. Advanced Choral Conducting. (2) (Formerly numbered 118A.) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting ba-sics, baton technique, beat patterns, dynamics, score
preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C218A. P/ NP or letter grading.

C118B. Choral Techniques and Methods. (2) (Formerly numbered 118B.) Lecture; one hour, studio, two hours. Requisites: courses 116, 117, 118A. Vocal and choral pedagogy, vocalizing and warm-up techniques, diction, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C218B. P/NP or letter grading.

119. Vocal Techniques for Music Education. (2) Laboratory, three hours; outside study, three hours. Introduction to technique of singing voice, including analysis of vocal and choral techniques, and development of individual vocal repertory. Concurrently scheduled with course C225. P/NP or 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; at least one reading by UCLA Wind Ensemble scheduled. Letter grading. May include percussion.

136A-136B. Musical Analysis of Western Music. (5-5-5) Lecture; at least one reading by UCLA Philharmonia Orchestra scheduled. Letter grading. May include percussion, three hours. Requisites: courses 120A, 120B, 120C. Scoring for Symphony Orchestra. (4)

Grades are assigned by applied instructor in Fall and Winter; P/NP or letter grading. May be repeated for credit. P/NP or letter grading.

C150. Instrumental and Piano Duo Repertoire. (2) Activity; two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and instrumentalists. Activities include weekly score preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Intensive dictation study incorporated. Regular coaching with faculty members, weekly performance work- shop, and rehearsals. Concurrently scheduled with course C458. P/NP or letter grading.

C158. Vocal Repertoire Interpretation. (2) Activity; two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and vocalists. Activities include text and score preparation, diction, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. May be concurrently scheduled with course C458. P/NP or letter grading.

160A-165. Undergraduate Instruction in Performance for Performance Specialist. (2) (Each) Studio, one hour. Limited to junior/senior Music majors who have been accepted by audition into performance specialization. Students must perform in noon concert once during their junior year and must present full recital in their senior year. Grades are assigned by applied instructor in Fall and Winter. Quarter. May be repeated for credit. P/NP or letter grading.


160A-165. Undergraduate Instruction in Performance for Performance Specialist. (2) (Each) Studio, one hour. Limited to junior/senior Music majors who have been accepted by audition into performance specialization. Students must perform in noon concert once during their junior year and must present full recital in their senior year. Grades are assigned by applied instructor in Fall and Winter. Quarter. May be repeated for credit. P/NP or letter grading.

C170. Chamber Ensembles. (2) Activity; two hours. Preparation: audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to ensembles. Students may enroll in two sections per term; total of 12 units may be applied toward degree requirements. May be concurrently scheduled with course C485. P/NP or letter grading.

C176. Electronic Music Composition. (4) Lecture; three hours; laboratory, three hours. Preparation: advanced experience and understanding of various composition (art music), two years of music theory. Limited to music composition majors. Exercises in electronic composition, orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (ProTools), and final project. May be concurrently scheduled with course C226. P/NP or letter grading.

CM182. Music Industry. (4) (Same as Ethnomusicology CM182 and Music History CM186.) Lecture; four hours; discussion; one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM232. P/NP or letter grading.

B. Community or Corporate Internships in Music. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work experiences. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music. (2 to 4) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to seniors. Individual interest courses, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter (research project) required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.
Graduate Courses

M201. Repertory and Analysis. (2) (Same as Musico-logy 201.) Seminar, two hours. Required or corequisite: Musicology 200A. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. S/U grading.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of analytical techniques and approaches required for professional performers, including approaches to the analysis of that music, concentration on small and large forms, theories of musical coherence, and understanding of styles. Letter grading.

203. Notation and Performance. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music students. Survey analysis of evidence performers use to make their interpretive decisions in performance of vocal and instrumental music of European tradition. Topics include editions, treatises, tem- po indications, expressive notation, use and influence of recordings, composer-performer relationship, and nonstandard notation. Letter grading.

204. Music Bibliography for Performers. (4) Lecture, three hours; outside study, nine hours. Required for graduate music students. Survey of general bibliographic techniques in music, with emphasis on materials for performing musicians. Letter grading.

C184A-C184B. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C184B. Letter grading.

C185A-C185B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C182A. Vocal and choral pedagogy, vocalizing and warm-up techniques, dictation, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C182B. Letter grading.

C222. Speculative Music Theory. (4) Discussion, three hours. Designed for graduate music students. Techniques of tonal coherence studied through analysis and compositional exercises in styles of given peri- od. May be repeated once for credit. May be concurrently scheduled with course C212. S/U or letter grading.

C225. Historical and Philosophical Foundations of Music Education. (4) Lecture, three hours. Designed for graduate students. Development of music education in U.S. according to established schools of thought. May be concurrently scheduled with course C185B. Additional assignments, as well as lecture of greater depth, of required of graduate students. S/U or letter grading.

C265A-C266B. Music Composition. (6) Lecture, three hours; laboratory, three hours. Preparation: advanced experience and accomplishment in serious composition (art music), two years of music theory. Designed for graduate students. Limited enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (ProTools), and final project. May be concurrently scheduled with course C176. S/U or letter grading.


C251. Seminar: Orchestration. (4) Seminar, three hours. Designed to provide gradu- ate composition students with in-depth exposure to contemporary and historical styles, beginning with late medieval composition and continuing through development of audio recordings to MTV and popular music today. May be repeated for credit. Offered in summer only. C182 or letter grading.

C252. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Focus on writing music for commercial movies. Difference between underscoring and score music and discussion of surrealistic effect when they merge, as in MTV, dream sequences, or montages. Study of areas of filmmak- ing — preproduction, production (shooting), and post- production. Examples from classic movies and dis- cussion of their scores. Composition of actual cues for several scores, coordinated to picture to be term project. Separate cues involve dialogue, melodrama, comedy, chase, memory montage, and tension. Letter grading.


260A. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Elaboration of music for commercials. Exploration of styles, performances, and continuing through development of audio record- ings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

270A-270F. General Topics. (4-4-4) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists who have had little or no previous ex- perience 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.

S331A-S331B-S331C. Orff Schulwerk Training Courses. (4-4-4) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Requisite: course 330. Offered in summer only. S/U or letter grading.

S341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Lecture, 25 hours. Comprehensive view of current trends in band/ wind ensemble programs, including nonverbal com- munication, conducting, and rehearsal techniques. Study of new and recently published music 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.

292. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of topics in music by variety of approaches that may include proj- ects, performances, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists who have had little or no previous ex- perience 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.

S331A-S331B-S331C. Orff Schulwerk Training Courses. (4-4-4) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Requisite: course 330. Offered in summer only. S/U or letter grading.

S341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Lecture, 25 hours. Comprehensive view of current trends in band/ wind ensemble programs, including nonverbal com- munication, conducting, and rehearsal techniques. Study of new and recently published music 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.

292. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of topics in music by variety of approaches that may include proj- ects, performances, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists who have had little or no previous ex- perience 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.

S341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Lecture, 25 hours. Comprehensive view of current trends in band/ wind ensemble programs, including nonverbal com- munication, conducting, and rehearsal techniques. Study of new and recently published music 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.

292. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of topics in music by variety of approaches that may include proj- ects, performances, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists who have had little or no previous ex- perience 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.
es in choral conducting and teaching. Topics include innovative choral methods, choral conducting, vocal pedagogy, and music education, 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, two hours. Lecture and, two hours. Preparation: one year of computer music performance or equivalent. Introduction to computer music performance and composition, with emphasis on practical information necessary to intelligently purchase and implement microcomputers in schools. Courseware to be experienced through a previous 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, four hours; laboratory, two hours. Preparation: one year of computer music performance or equivalent. Exploration of available hardware resources related to existing 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.

371. Marching Band in Secondary Education. (2) Lecture, three hours. Preparation: one year of computer music performance or equivalent. Study of the contemporary marching band as component of music curriculum in secondary education, including current approaches, practices, and problems associated with marching bands, as well as history and perspective. S/U or letter grading.

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

401. New Music Forum. (2) Tutorial/laboratory, two hours. Preparation: graduate study in music at UCLA. Interactive course in preparation and performance of premiere work especially composed for graduate performer or performers by graduate composer at UCLA. Letter grading.

450. Keyboard Skills for Pianists. (2) Activity. two hours; outside study, four hours. Applied music course with focus on necessary skills for piano performance. Areas include sight playing, score reading, transcription, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C150. Letter grading.

455. Instrumental and Piano Duo Repertoire. (2) Activity, four hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and instrumentalists. Activities include weekly score preparation, weekly chamber coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Regular coaching with faculty members, weekly performance workshop, and rehearsals. Concurrently scheduled with course C155. Letter grading.

458. Vocal Repertoire Interpretation. (2) Activity. two hours; outside study, four hours. Performance-based course that develops repertoire and experience in concert performance for pianists and vocalists. Activities include text and score preparation, dictation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Intensive dictation study incorporated. Regular coaching with faculty members, weekly performance class, and rehearsals. Concurrently scheduled with course C158. Letter grading.


469. Instrumental Pedagogy. (4) Lecture, three hours; outside study and preparation, nine hours. Preparation: advanced proficiency on one musical instrument of graduate music student. Study of art of teaching musical instruments, including discussions of philosophy of teaching, learning process itself, and teaching of musical interpretation. Individual study of various considerations, such as physical/technical aspects and pedagogical repertoire, peculiar to teaching student's primary instrument. Letter grading.

470. Opera Studio for Graduate Students. (4) Laboratory, six hours. Designed for graduate students. Performance techniques and repertoire for graduate students in opera. S/U or letter grading.

471. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of teaching techniques for voice, including thorough investigation of vocal mechanism and its use, plus study of noted teachers of past and present. Further emphasis on practical teaching experience in class. Letter grading.

472. Master Class in Opera. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of opera literature. May be repeated for credit. S/U or letter grading.

475. Master Class in Conducting. (6) Studio. three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of musical literature in specialized field of conducting. May be repeated for credit. S/U or letter grading.

C477. Gluck Chamber Ensembles. (2) Studio. two hours. Preparation: audition. Advanced chamber ensembles who, after rehearsing and being coached on core amount of repertoire, play in outreach settings around Los Angeles community. May be repeated for credit without limitation. Concurrently scheduled with course C177. S/U grading.

C480. UCLA Chorale. (2) Activity, four hours. Preparatior: audition. Designed for M.M. and D.M.A. students. Select mixed ensemble of 50 to 60 voices performing choral music appropriate for concert chorale ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C90A. Letter grading.

C481. Symphonic 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. Concurrently scheduled with course C90E. Letter grading.


C484. Piano/Keyboard Accompanying. (2) Activity. four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerted, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C90G. Letter grading.

C485. Chamber Ensembles. (2) Activity. two hours. Preparation: audition. Students must be at an advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to ensembles. Students may enroll in two sections per term; total of 12 units may be applied toward degree requirements. May be concurrently scheduled with course C175. Letter grading.


495. Introductory Practicum for Teaching Apprentices in Music. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

496. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applications of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.


506A. Directed Individual Studies in Orchestration and Composition. (2, 4, or 6) 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.

506C. Directed Individual Studies in Music Education. (2, 4, or 6) 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.

506D. 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.

507. Preparation for Master's Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) Tutorial, to be arranged. S/U grading.

508. Guidance of M.A. Thesis. (4, 8, or 12) Tutorial, to be arranged. Only 4 units may be applied toward degree requirements. May be repeated for credit. S/U or letter grading.


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**Music Industry**

**Interdisciplinary Minor School of the Arts and Architecture**

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Anthony Seeger, Ph.D., Chair

**Faculty Committee**

Nina S. Eidsheim, Ph.D. (Musicology)
Robert W. Fink, Ph.D. (Musicology)
Gordon Henderson, M.M.E. (Music)
The Music Industry minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to a critical perspective on the formative effects of the music industry and music technology has had on musical practices around the world, (2) prepare students for employment in the music industry, including marketing and sales, recording production, intellectual property, sound recording, and arranging, and (3) contribute to improved communication and interaction between the University, the music industry, and the musical life of Los Angeles.

Scope and Objectives

The Music Industry minor is intended to supplement the education of undergraduate students majoring in Ethnomusicology, Music, and Music History. To apply to the minor, transfer students must have completed a minimum of one term of residency at UCLA and students admitted as freshman must have completed a minimum of three terms of residency at UCLA. Students must be in good academic standing with an overall grade-point average of at least 2.0.

Required Upper Division Courses (28 units): Music Industry 101, 195, three courses selected from one of the three clusters listed below, and two additional courses selected from one of the clusters listed below.

General Music Industry Cluster: See the minor adviser for an approved list of courses.

Music Industry Cluster: Ethnomusicology C100, 105, CM182 (or Music CM182 or Music History CM186), C184, Music Industry 102, 104, 105, 106.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two upper division courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Music Industry

Upper Division Courses

101. Seminar: Music Industry, Technology, and Science. (4) Seminar, four hours; outside study, eight hours. Required of Music Industry minors. Introduction to intellectual and theoretical frameworks that form Music Industry minor and that scholars of music and music industries have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, legal, global, and artistic terms, how music technologies of recording, reproduction, and consumption operate, and how basic music science from acoustics to brain biology to music perception affects how music is produced and heard. Letter grading.

102. Internet Marketing and Branding for Musicians. (4) Seminar, four hours; outside study, eight hours. Digital world for musicians has changed dramatically. Not only has one’s ability to self-market and create communities directly with listeners, but also can thrive in online communities with influencers and other musicians around the world. Digital has transformed not just the music industry, but also how they create. Internet marketing has morphed into Internet community crowdfunding — very different world for musicians and musical organizations. Study driven by project-based work of current online environments for musicians, organizations, and venues. Students dive into best practices around work, growing brand, finding target market online, and engaging with right communities of practice to build their own connections and online portfolio of collaborators. Letter grading.

103. Music and Brain. (4) Seminar, four hours; outside study, eight hours. Multidisciplinary approach to understanding brain by combining neuroscience, music perception, performance, and cognition. Students natural interest in music serves as springboard for learning basic concepts about how brain works. Focus on specific themes such as harmony perception, rhythm perception, emotion and meaning in music, and creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlations. Broad understanding of research topics in cognitive neuroscience, one of three main subdivisions of neuroscience; introduction to fundamental principles in neurophysiology, psychophysiology, and neuroanatomy, whose basics form foundation for brain imaging, forensic practice, social psychology, research, and marketing research; and specific knowledge about brain mechanisms mediating music-related cognitive and emotional functions. Letter grading.

104. Music and Law. (4) Seminar, three hours; outside study, nine hours. Fundamentals of American law as it applies to entertainment business, with special attention to music and its use in film, television, and new media. Legal relationships in entertainment business and basic business practices. Exploration of legal aspects of the process of producing works in entertainment field, from acquisition of rights and talent through production and distribution. Letter grading.

105. Songwriting: Making Musical Magic. (4) Lecture, four hours; outside study, eight hours. With special focus on songwriting renaissance of rock era, examination of work of greatest songwriters of post-World War II generation (circa 1955 to 1990) through creative as well as practical industry guidance from current and noteworthy practitioners. Coverage of songwriting, record production, music publishing, and copyright record companies in 20th and 21st centuries. Guest music industry professionals to demonstrate individual creative processes and discuss their paths to songwriting. Letter grading.

106. Stardom Strategies for Musicians. (4) Lecture, four hours; outside study, eight hours. Help for students to determine what music career best serves their own lives and gives them tools that help them be successful in their lives and careers. Guest speakers, including top music agents, managers, publicists, and performers, to be featured. Letter grading.

107. Audio Technology for Musicians. (4) Studio, four hours; outside study, eight hours. Limited to Ethnomusicology, Music, and Music History majors. Equally for singers using microphones or beat makers using a digital instrument. Specific equipment and procedures permeate music making, and ability to understand their logic is key for any musician today. Practical technical aspects and procedures of equipment and software (sequencers, recorders, mixers, microphones, and so on) most commonly used in contemporary music making. Main sound processing types (equalizers, compressors, reverberation). Fundamen
tal aspects of most widespread music production software and hardware. P/NP or letter grading.

108. Founding and Sustaining Performing Arts Organizations. (4) Seminar, four hours. Examination of process of founding performing arts organizations, beginning with idea to do so, organizing organizational mission, and mechanics of becoming nonprofit corporations; issues of funding, press relations, finding appropriate venues, developing audience; mechanics, legal and routine, of running arts businesses; establishing relationships with other organizations in field; issues of making and distributing recordings. Students create on paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. Letter grading.

188. Special Courses in Music Industry. (4) Seminar, four hours; outside study, eight hours. Special topics in music industry for undergraduate students taught on experimental or temporary basis. May be repeated for credit with topic change. Letter grading.

195. Community or Corporate Internships in Music Industry and Technology. (4) Tutorial, six to 12 hours. Limited to juniors/seniors in Music Industry minor with a minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.

197. Individual Studies in Music Industry and Technology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors in Music Industry minor with a minimum cumulative 3.0 grade-point average. Individual intensive study in music industry and technology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in research project/paper required. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.

Musicology

College of Letters and Science

UCLA

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Scope and Objectives
The Department of Musicology provides students with a broad understanding of the history and culture of music. Courses cover virtually every period, style, and genre, including jazz and other popular musics. The department is aligned with the Departments of Ethnomusicology and Music and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music among students 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

Transfer Students
Transfer applicants to the Music History major with 90 or more units must complete one year of music theory prior to admission to UCLA. Experience in music performance is strongly recommended. Transfer students are required to take Music History 12W at UCLA.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Music History 125A through 125F, 187; one course from 160 through 185 or from 191A through 191G or 191P; one additional 4- to 5-unit upper division elective course in ethnomusicology, music, or music history (enrollment may be limited; check with the department or instructor); and one capstone research seminar (course 190) and one capstone seminar (course 191T). Students may enroll in courses from the Music Department, if instructors are available.

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Honors Program
The honors program is designed for Music History majors who wish to carry out an extended independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project.

All junior and senior Music History majors who have completed a minimum of four upper division music history courses with a departmental grade-point average of 3.7 or better and an overall GPA of 3.0 or better are eligible to apply. Normally, the thesis must be completed during Fall Quarter of the senior year.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.7 or better in upper division courses in the department and an overall GPA of 3.0 or better, and (3) complete at least one quarter of Music History 198 (2 units) with a grade of A– or better on the resulting thesis.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.7 or better in upper division courses in the department and an overall GPA of 3.0 or better, and (3) complete at least one quarter of Music History 198 (2 units) 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. Students may select from a wide variety of undergraduate courses that range through the history of European and American music.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition with the department in 2443 Schoenberg Music Building. For further information, contact the department at (310) 206-5187.

Required Lower Division Courses (10 units):
Two music history courses with grades of C or better.

Required Upper Division Courses (21 to 25 units):
One course from Music History 160 through 185, one additional upper division music history course, and three additional upper division ethnomusicology, music, or music history courses (minimum 12 units). Enrollment in some courses may be limited; check with the department or instructor.

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

No more than two courses may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must have an overall grade-point average of 2.0 or better.

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://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Musicology.

Music History
Lower Division Courses

2. Introduction to Classical Music. (5) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NP or letter grading.

3. History of Rock and Roll. (5) Lecture, four hours; discussion, one hour. Analysis of forms, practices, and meanings of rock and roll music, broadly conceived, from its origin to present. Emphasis on how this music has reflected and influenced changes in sexual, racial, and class identities and attitudes. Letter grading.
6GA-6GB. Musicianship for Musicology Grad students. (2-2) Seminar/laboratory, three hours. Designed to help entering graduate students remedy en- trance deficiencies in music and instrumental playing.

7. Film and Music. (5) Lecture, four hours; film viewing, two hours. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual imagery. P/NP or letter grading.

8. History of Electronic Dance Music. (5) Lecture, four hours; discussion, one hour. Survey of groove-based electrified dance music from its origins in 1960s pop and soul to present, covering disco, house, techno, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club cultures to induce altered states of musical consciousness; promise (versus reality of) political and spiritual transformation; electronic dance music as new art music. P/NP or letter grading.


M10A-M10B-M10C. Introduction to Music: History, Culture, Creativity. (4-4-4) Formerly numbered 10A-10B-10C.) (Same as Ethnomusicology M17A- M17B-M17C; course 10A-M10B-M10C.) Lecture, four hours; laboratory, four hours. Preparation: placement examination. Course M10A is enforced requisite to M10B, which is enforced requisite to M10C. Students who have completed M10C+ or better proceed to next course in sequence. Introduction to study of music from three complimentary perspectives: its history, relation to culture, and creative structuring. Lectures from musicologists, ethnomusicologists, and composers/theorists combined with small sections in which students develop wide range of musicianship skills. Organized around broad ideas (performance, simultaneity, time, place, and more) where creative and cultural impulses are explored through analysis and discussion of broad repertoire of musical works spanning historical eras and global cultures. Composition, exercises, production of short compositions, and short papers dealing with historical and cultural issues required. Letter grading.

12W. Writing about Music. (5) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Emphasis on learning specific skills, incorporating technical description, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.


60. American Musical. (5) Lecture, four hours; discussion, nine minutes. Survey of American musical in 20th century, beginning with its roots in operetta, vaudeville, and Gilbert and Sullivan, and focusing on its connections to politics, technology, film, opera, and variety of popular musical styles, including Tin Pan Alley, jazz, and rock. P/NP or letter grading.

61. Music in Los Angeles. (5) Lecture, four hours; discussion, one hour. Exploration of history of music in Los Angeles. From Spanish missions and history of Los Angeles to greater emphasis on music in 20th century, with special focus on European émigrés, internment and postwar history of Japanese American community, Chicano and Mexican American music to present. Upper Division Courses. 62. Bach. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Johann Sebastian Bach. P/NP or letter grading.

63. Baroque and Classical Periods. (5) Lecture, four hours; discussion, one hour. History and analysis of various baroque and classical periods, with special attention to major composers and their music of the 17th and 18th centuries. P/NP or letter grading.

CM90T. Early Music Ensemble. (4) Same as Music M90T. Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from the Middle Ages to 1600. Early instruments may be used at instructor's discretion. May be repeated for credit without limitation. May be concurrently scheduled with Musicology C490T. P/NP or letter grading.

Upper Division Courses

125A-125B-125C. History of Open. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. P/NP or letter grading. 125A. Baroque and Classical Periods; 125B. Romantic Period; 125C. 20th Century.

133B. History of Open. (5-5-5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. P/NP or letter grading. 135A. Baroque and Classical Periods; 135B. Romantic Period; 135C. 20th Century.

135B. History of Open. (5) Lecture, four hours; discussion, one hour. Examination of life and music of Beethoven in the late 19th century. P/NP or letter grading.

137. Music and Gender. (5) Lecture, four hours; discussion, one hour. Examination of gender and gender roles and musical works of Ludwig van Beethoven. P/NP or letter grading.

138. Sacred Music. (5) Lecture, four hours; discussion, one hour. Study and analysis of current and special topics in Western music. P/NP or letter grading.

170. Beethoven. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Ludwig van Beethoven. P/NP or letter grading.


181. Selected Topics in Music of Mozart. (5) Seminar, two hours. Preparation: ability to read music and engage in melodic, harmonic, and contrapuntal analysis. Enforced corequisite: attendance, but not enrollment, in course 60. Limited to Music History majors and minors. Intensive discussion of selected pieces by Mozart and of certain other works in fuller understanding of his contributions to musical culture of Enlightenment, as well as to contemporary culture. Letter grading.


166. Medievalism and Music History. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 66 lecture. Exploration of ways in which specific approaches and attitudes to past shape music history, composition, and performance, with special focus on folk music and early music revival. Letter grading.

168. 1968. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 68 lecture. Exploration of key historical issues in culture and history of 1960s as they crystalize or are brought out by events of 1968 to understand 1968 not as one iconic year in itself, but rather to use it as lens for observing cultures of music and music-making in 1960s. Letter grading.


172. Selected Topics in Sacred Music. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72 lecture. Introduction to some ways that music has been held to embody, support, and enact sacredness, including experience of god(s), sense of transcendental, work of liturgy, and interactions of music, politics, and religion. Letter grading.


CM106. Music Industry. (4) Same as Ethnomusicology CM182 and Music CM182.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and beyond. Concurrently scheduled with course CM288. Letter grading.

187. Precapstone Course for Music History Majors. (2) Seminar, two hours. Limited to Music History majors. Students enrolled completing capstone capstone course during Fall Quarter of senior year. Topics include research methods, engagement with music in culture, critical evaluation and use of scholarly resources, development of bibliographies, formulation of theses, and writing about music. Taken in Spring Quarter of junior year. P/NP grading.

188. Special Courses in Music History. (4) Lecture, four hours. Special topics in music history for undergraduate students taken on temporary basis. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

190. Research Colloquia in Music History. (1) Seminar, one hour. Designed for senior Music History majors. Limited to bring together students under- taking supervised tutorial research in seminar setting with one or more faculty members to share their work with peers, and act as interlocutors for other course members. Students expected to present their work and to discuss and help critique work of others at similar stage of development. P/NP grading.

191A-191G. Junior Variable Topics Research Seminars. (4 each) Seminar, three hours. Designed for junior Music History majors. Special aspects of music of each period studied in depth. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191A. Middle Ages; 191B. Renaissance; 191C. Baroque; 191D. Classic; 191E. Romantic; 191F. 20th Century; 191G. Other Topics; 191P. Performance Practice. Practical issues in performance practice, specific questions of how musical performance interacts with cultural and political performance, and/or general issues of theory of performance in Western music and its relationship to the reper- torey and historical context selected by instructor.

191T. Capstone Seminar: Music History. (4) Seminar, three hours. Limited to Music History majors. Supported by discussion and oral presentation, students work on their senior theses. Normally taken in Fall Quarter of senior year. Letter grading.

193C. Music History Journal Club Seminars for Majors. (2) Seminar, two hours. Limited to Music History majors. Introduction to discipline through discussion of readings and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibliographic control. Normally taken in junior year. P/NP grading.

193D. Music History Performance/Analysis Seminars for Majors. (2) Seminar, two hours. Recommended requisite: course 193C. Limited to Music History majors. Introduction to how music historians engage with issues of musical performance. And of how historical concerns, theoretical issues, and methodol- ogies can inform music as practice, especially as it is performed, recorded, modified, and/ or oth- erwise consumed. Continued attention to issues of bibliographic control. Normally taken in senior year. P/NP grading.

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history of different fields of music scholarship (with strong focus on musicology) and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archival and ethnographic research. Introduction to practi- cal written forms such as abstract, grant proposal, paper, book proposal, and review. Letter grading.

200B. Critical, Cultural, and Social Theory. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to issues surrounding the sociology of culture, and historical practice, with strong emphasis on critical, cultural, and social theory. May include introduc- tion to social theory, materialist theories of culture, postcolonialism, critical theory, or overview of cultural theory or of group of theories selected by instructor, including feminism, performance studies, sociology, historiography, urban studies, anthropology, philoso- phy, psychoanalysis, poststructuralism, race, gender, and sexuality studies, lesbian, gay, bisexual, trans- gender, and queer studies, disability studies, and so on. Introduction to set body of theory in its relation to study of music. Letter grading.

200C. Music Aesthetics, Analysis, and Philoso- phy. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Exploration of selected philosophical, aesthetic, and/or analytical perspectives on music to gain insight into selected analytical and philosophical approaches to phenomenon of music and to acquire skills in analyzing and interpreting various repertoire. Letter grading.

201. Repertory and Analysis. (2) (Same as Music M201.) Seminar, two hours. Requisite or corequisite: course 200A. Exploration of defined repertory through readings and analysis. Special topics vary. May be repeated for credit. S/U grading.

245. Seminar: Analytical/Repertoire Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of analytical topics that vary from year to year. May be repeated for credit. Meets with course 246; concurrent enrollment in both cours- es not allowed. Letter grading.

246. Audit Seminar: Analytical/Repertoire Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. May not be applied toward M.A. or Ph.D. degree require- ments. Meets with course 245; concurrent enrollment in both courses not allowed. S/U grading.

250. Seminar: Theoretical Topics. (4) Seminar, three hours. Designed for graduate musicology stu- dents. Coverage of theoretical topics that vary from year to year. May be repeated for credit. Meets with course 251; concurrent enrollment in both courses not allowed. Letter grading.

251. Audit Seminar: Theoretical Topics. (2) Semi- nar, three hours. Requisite or corequisite: course 200A. Special topics vary from year to year. May not be applied toward M.A. or Ph.D. degree requirements. May be repeated for credit. Meets with course 250; concurrent enrollment in both courses not allowed. S/ U grading.

255. Seminar: Historical Topics. (4) (Formerly num- bered 260G.) Seminar, three hours. Designed for graduate musicology students. Coverage of historical
topics that vary from year to year. May be repeated for credit. Meets with course 256; concurrent enrollment in both courses not allowed. Letter grading.

256. Audit Seminar: Historical Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. Specific topics vary from year to year. May not be applied toward M.A. or Ph.D. degree requirements. May be repeated for credit. Meets with course 255; concurrent enrollment in both courses not allowed. S/U grading.

261. Topics in Performance Practice. (4) Formerly numbered 261F Seminar, three hours. Designed for graduate students. Investigation of primary source readings in performance practices across history of Western music; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading.


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. Letter grading.

CM288. Music Industry. (4) (Same as Ethnomusicology CM288 and Music CM282.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM186. Letter grading.

296. Research Topics in Musicology. (2 to 4) Seminar, two to four hours. Preparation: consultation with instructor. Designed for graduate musicology students. Advanced study and analysis of current topics in musicology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

298. Seminar: Research Methods. (2) Seminar, two hours. Limited to second-year graduate musicology students and students with master's degrees. Development of advanced knowledge and bibliographic control in three historically separate areas of musicological specialization. May be repeated for credit. S/U grading.


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

C490T. Early Music Ensemble. (4) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early instruments may be used at instructor's discretion. May be repeated for credit without limitation. May be concurrently scheduled with Music History CM90T. S/U or letter grading.

495. Introductory Practicum for Teaching Apprentices in Musicology. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music or Musicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

596. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) Tutorial, to be arranged. Preparation: completion of all M.A. or Ph.D. course and language requirements. Limited to graduate students. S/U grading.


NEAR EASTERN LANGUAGES AND CULTURES
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David G. Hirsch, M.A.

Scope and Objectives
The mission of the Department of Near Eastern Languages and Cultures is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization.

The department offers instruction in the major modern and ancient languages of the Near East: Akkadian, ancient Egyptian, Arabic, Armenian, Berber, Coptic, Hebrew, Persian, and Turkish. To meet increasing demands for a knowledge of this area and its past and present, it treats each language in a wide perspective — as a means of communication, as a vehicle of a cultural heritage, as a research tool for the area, and as an object of research itself.

Undergraduate majors may be taken in Ancient Near Eastern Civilizations, Arabic, Hebrew, Iranian Studies, Jewish Studies, and Middle Eastern Studies. M.A. 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 Undergraduate Council of the UCLA Academic Senate voted to temporarily suspend admissions to the Ancient Near Eastern Civilizations B.A. and the Hebrew B.A. effective Spring Quarter 2012. Students currently in the degree programs are not affected by the admissions suspension.

The department offers the Bachelor of Arts degree in six fields: (1) Ancient Near Eastern Civilizations, (2) Arabic, (3) Hebrew, (4) Iranian Studies, (5) Jewish Studies, and (6) Middle Eastern Studies. In each of these fields students must meet the requisites and take the courses prescribed. Their adviser assists in selecting a plan of study developed around their interests.

Students may combine their major with one in another department (double major) to enhance their educational opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career and in consultation with program advisers in both majors.

Ancient Near 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: Middle Eastern Studies 50A or Near Eastern Languages M20; 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 requisite levels.

Transfer Students
Transfer applicants to the Ancient Near Eastern Civilizations major 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.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.htm for up-to-date information regarding transfer selection for admission.

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 (Semitcs 140A, 140B, 141, 142) and two literature and history courses selected from Ancient Near East M104A, 150A, M185D. The remaining eight courses are to be selected from Ancient Near East M103A, M103B, M104B, M104C, M104D, M130, 140A, 140B, 140C, 145, 150B, 150C, 160, 161, 162, C163, M170, Iranian 169, Jewish Studies M150A. One course must be in research methodology (such as Anthropology 111, C115R, 130, M140, 141, 150, 156, Archaeology C159, Comparative Literature 100, English 112A, 120, or Linguistics 110). The remaining nine courses are to be selected from Ancient Near East M103A, M103B, M104A through M104D, 120A, 120B, 120C, 121A, 121B, 121C, 123A, 123B, 124, M130, 150A, 150B, 150C, 160, 161, 162, C163, C165, Art History M101A, M101B, M102A, M102B, Classics 168, Jewish Studies M150A, 150B, 170, M182A, Semitics 140A, 140B, 141, 142.

Majors selecting option 4 (biblical studies) are required to take 14 courses as follows: four language courses (Hebrew 102A, 102B, 102C, 120) and three history and literature courses (English 111B, Jewish Studies M150A, M182A). The remaining seven courses are to be selected from Ancient Near East M103A, M103B, M104A through M104D, M130, 150A, 150B, 160, 161, 162, C163, C165, M170, English 111A, 111C, Greek 130, Hebrew 125, 130, 135, History M186A, M186B, M186C, Jewish Studies 150B, 170, 177, Latin 120, Semitics 130.

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, B300 Murphy Hall, (310) 825-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at (310) 825-4165.

Arabic B.A.
Preparation for the Major
Required: Arabic 1A, 1B, 1C.

Transfer Students
Transfer applicants to the Arabic major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.htm for up-to-date information regarding transfer selection for admission.

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 111A, 111B, 111C, 130, 135, C140, 160, 170, 180A, 180B, 199, Jewish Studies M150A, 150B, M182A, M182B, Semitics 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 197 or 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
Transfer applicants to the Iranian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Persian.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admit.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven courses, including seven in Iranian language and civilization selected from Ancient Near East C163, Iranian 102A, 102B, 102C, 103A, 103B, 103C, 120, 140, 141, 142, 161A, 161B, 161C, 170 (at least three of the seven must be selected from Iranian 102A, 102B, 102C, 103A, 103B, 103C, 120, 140, 141, 142) and four elective courses from the department or from Art History 104A, 104B, C104C, History 105A, 105B, 105C, 110D, Political Science 157. A maximum of two Iranian 197 or 199 courses (8 units total) may be applied toward the major.

Jewish Studies B.A.
Preparation for the Major
Required: Jewish Studies M10 or two courses selected from Ancient Near East 10W, Middle
Eastern Studies 50A, 50B, 50C and demonstrated proficiency equivalent to level 3 at UCLA in one foreign language (Arabic, Armenian, Hebrew, or Modern Middle Eastern language). Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory course prior to admission to UCLA: one social, cultural, and religious institution of Judaism course. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

### The Major

#### Required:
Eleven courses, including (1) three selected from Hebrew 102A, 102B, 102C, 103A, 103B, 103C, 110A, 110B, 111A, 111B, 111C, 120, 125, 130, 135, 141 — students may substitute another upper division language (Judeo-Arabic, Judeo-Persian, Ladino, Yiddish) if they can demonstrate its integral role in their specific course of study, (2) two courses selected from Jewish Studies 101A, 101B, 101C, 102A, 102B, 121A, 121B, 121C, 130, 131A, 131B, 131C. Students are encouraged to take a research tutorial within Jewish Studies 197 or 199. A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

#### Study in Israel
Students are encouraged to spend up to one year in Israel either to (1) study with an education abroad program or (2) study at an Israeli university. For information on studying in Israel, contact the Education Abroad Program, B300 Murphy Hall, (310) 825-4889.

### Middle Eastern Studies B.A.

#### Preparation for the Major

**Required:** Two courses selected from Ancient Near East 10W, History 9D, Middle Eastern Studies 50A, 50B, 50C and demonstrated proficiency equivalent to level 3 at UCLA in one modern Middle Eastern language (Arabic, Armenian, Hebrew, Persian, Turkish) or through a departmental language placement examination. Students selecting ancient languages (including Akkadian, Aramaic, Coptic, Egyptian, Old or Middle Iranian, Sumerian, Syriac) are not required to take a modern elementary Middle Eastern language.

#### Transfer Students

Transfer applicants to the Middle Eastern Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic, Armenian, Hebrew, Persian, Turkish, or another modern middle Eastern language. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

### The Major

**Students must complete 11 upper division courses as follows:**

#### Required Core Courses: A total of six courses, including at least two courses from each of the following four areas:


- **Literature:** Ancient Near East 150A, 150B, 150C, Arabic M110, C141, M148.

- **Religion:** Ancient Near East M130, M135, M185D, History M106A, M106B, Iranian 170, Islamics M110, 130, 151, Jewish Studies 130, M155, Study of Religion 120.


#### Required Upper Division Courses (28 units): Seven courses in Arabic or Islamics; 199 courses may not be applied. With consent of the undergraduate adviser, two of the seven courses may be taken outside the department. Courses recommended as electives for the major in Ancient Near Eastern Studies (Hittite) M168, Ancient Near Eastern Languages and Cultures / 511

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 378 Humanities Building. (310) 825-4165.

#### Required Upper Division Courses (28 units):
Seven courses in Arabic or Islamics; 199 courses may not be applied. With consent of the undergraduate adviser, two of the seven courses may be taken outside the department. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

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 1A, 1B, 1C, or the equivalent as determined by the department, and file a petition in 378 Humanities Building. (310) 825-4165.

#### Required Upper Division Courses (28 units):
Seven courses from the Armenian section of the department; 199 courses may not be applied. At least one course from each of the three disciplines of language, literature, and history must be selected. Eligible language courses begin in the fourth quarter of study (i.e., course 102A for Western Armenian, course 105A for Eastern Armenian). With consent of the undergraduate adviser, two of the seven courses may be taken outside the department. Ordinarily, the following courses may be applied: History 107A through 107E, 200S, 201S, 211A, 211B, 212, Indo-European Studies M150.
Near Eastern Languages and Cultures

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/llibrary/ggqmintro.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Near Eastern Languages and Cultures.

Ancient Near East

(Akkadian, Aramaic, Phoenician, Syriac, and Ugaritic are listed under Semitics.)

Lower Division Courses

10W. Jerusalem: Holy City. (5) Lecture; three hours, discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of Jewish Jerusalem through event and experience. Satisfies Writing II requirement. Letter grading.

15. Women and Power in Ancient World. (5) Lecture; four hours, discussion, one hour. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others denied their femininity in dress and manner, effectively androgyning themselves or pretending to be men so that their femininity would not be obstacle to political rule. Many women only gained throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal succesions were in disarray. Women were sometimes only effective leaders left in drawn-out battles against imperial aggression. No women were able to gain reigns of power through their bloodlines alone. Women's power was compromised from outset. Examination of root causes and results of this political inequality. P/NP or letter grading.

Upper Division Courses

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to Old Kingdom. (4) (Formerly numbered M101A.) (Same as Art History M101A.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course C267A. P/NP or letter grading.

CM101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) (Formerly numbered Near Eastern Languages M101B.) (Same as Art History M101B.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course C267B. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of Thebes. (4) (Same as Art History M101C.) Lecture, four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern Luxor). The temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political transformations that occur throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile's eastern and western banks through festival processions, chronology of changes in function and form of Theban temples through time, and statuary program of individual temples. P/NP or letter grading.

M103A-M103B. Ancient Egyptian Civilization. (4-4) (Same as History M103A-M103B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M103A. Chronological discussion of Prehistory, Old and Middle Kingdom. M103B. New Kingdom and Late period until 332 B.C.

M104A. History of Ancient Mesopotamia and Syria. (4) (Formerly numbered M104.) (Same as History M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Fertile Crescent, including Palestine, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

M104B. Sumerians. (4) (Formerly numbered 164A.) (Same as History M104B.) Lecture, three hours. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennia B.C.E., with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.

M104C. Babylonians. (4) (Formerly numbered 164B.) (Same as History M104C.) Lecture, three hours. Overview of Babylon and cultural history of region from late 3rd millennium B.C.E. to invasion of Cyrus in 539 B.C.E., with focus on history and archaeology of region, urban structure, literature, and legal practices. P/NP or letter grading.

M104D. Assyrians. (4) (Formerly numbered 164C.) (Same as History M104D.) Lecture, three hours. Overview of Assyrian cultural history from its origins to end of Neo-Assyrian period (circa 612 B.C.E.), with focus on rise, mechanics, and decline of Neo-Assyrian Empire, which at its peak ruled ancient Near East from Zagros to Egypt. P/NP or letter grading.

M105. Archaeology of Egypt and Sudan. (4) (Same as Anthropology M105.) Lecture, three hours; laboratory, three hours. Ancient Egypt is well known for iconic archaeological sites such as Giza Pyramids and other sites. Women's position and place in society, and social and cultural development of Fertile Crescent, in- cluding Palestine, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

M110A-M110B-M110C. Iranian Civilization. (4-4-4) (Same as History M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled). History of ancient Iran from rise of Elam to end of Sasanian dynasty — Elamite civilization and Mede, Achaemenid, Arsacid, and Sasanian Empires. Emphasis on ancient Iran, but may be offered for early Islamic period. P/NP or letter grading.

120A-120B-120C. Elementary Ancient Egyptian. (5-5-5) Lecture, five hours. Course 120A is requisite to 120B, which is requisite to 120C. P/NP or letter grading. 120A. Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian. Basic rules of Middle Egyptian syntax, with focus on nomi-
nal, adjectival, and adverbial sentences. 120B. Verbal system and syntax of verbal sentences of Middle Egyptian. 120C. Reading of authentic Egyptian texts to develop knowledge of Egyptian grammar and to acquire familiarity with aims and methods of philology, study of ancient texts.

121A-121B-121C. Intermediate Egyptian Readings (5-5-5). Lecture, three hours; requisites: course 120C. Course 121A is requisite to 121B, which is requisite to 121C. Thematic readings in ancient Egyptian historical, religious, and literary texts. May be repeated for credit. P/NP or letter grading.

123A-123B, Coptic. (5-5) Lecture. 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; requisites: course 121C. Reading of Middle Egyptian technical literature in hieroglyphic transcription. Medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

125A. Digital Cultural Mapping Core Course A: Place, Time, and Digital World. (4) Lecture. Three hours; discussion, one hour. Introduction to how emerging digital mapping technologies like geographic information systems (GIS), virtual globes, and three-dimensional modeling are being utilized as new means of inquiry in the humanities and social sciences. Provides students with critical apparatus needed to effectively and responsibly, and heuristically use technology in digital cultural mapping projects. Analysis of different forms of visual presentation, with focus on data representation through mapping, reasoning, and argument. This course also assesses map-based presentations. Tracing of history of mapping and spatial representation of place to learn how mapping has always been connected with societal structures, politics, science, and literature, because maps do not merely represent reality, but also produce reality by structuring world and organizing knowledge about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercities, and Timelines. (4) (Same as Architecture and Urban Design M125B.) Laboratory, three hours; discussion, one hour. Hands-on laboratory investigation of emerging digital mapping technologies, including instruction in Web-based mapping applications, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural phenomena, applying skills students learned in course 125A to real-world data sets in humanities and social sciences. Students critically assess emerging technologies in field of digital cultural mapping, students take part in evaluation and production of sophisticated visual representations of complex data, becoming active participants in development of this new field. How to use suite of GIS and geotagging tools. Fostering of creative approaches to and engagement with mapping technologies: What new questions can be asked and answered using these technologies? How does one reason, argue, and solve real-world problems through digital cultural mapping? Design, development, and implementation of student mapping-based research projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125C. Digital Cultural Mapping Core Course C: Summer Research. (4) (Same as Architecture and Urban Design M125C.) Laboratory, three hours; fieldwork, one hour. Enforced requisites: course M125B or Architecture and Urban Design M125B. Participation in collaborative geo-archaeological research project in humanities or social sciences using skills learned in courses 125A and 125B. Gathering and input of datasets from real-world sources, creation of databases, analysis of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Final oral presentation required that details student work and provides critical analysis of source material and methodological/methods issues inherent to type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

M130. Ancient Egyptian Religion. (5) (Formerly numbered 130.) (Same as Religion M132.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs and practices of ancient Egypt to study Egyptian religion as coherent system of thought and sphere of action that once served as meaningful and relevant framework for understanding mentality of Nile Valley. General principles as well as developments through time (circa 3000 B.C. to 300 C.E.). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M135. Religion in Ancient Israel. (4) (Formerly numbered 135.) (Same as Religion M135.) Lecture, three hours. Introductory survey of various ancient Israelite religious beliefs and practices, their origin, and development, with special attention to diversity of religious practice in ancient Israel and Canaan during 1st millennium B.C.E. P/NP or letter grading.

140A-140B-140C. Elementary Sumerian. (4-4-4) Lecture, three hours. Requisites: Semitics 140A, 140B. Reading and interpretation of royal inscriptions, letters, and administrative texts from Ur III period. P/NP or letter grading.

145. Sumerian Literary Texts. (4) Lecture, three hours; discussion, one hour. Requisites: courses 140A, 140B. Reading and interpretation of selected Sumerian literary texts. P/NP or letter grading.

150A-150B-150C. Survey of Ancient Near Eastern Literatures in English. (4-4-4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading. 150A. Mesopotamia; 150B. Egypt. Preparation: familiarity with Egyptian history. Survey of 3,000 years of ancient Egyptian literature. Reading of Egyptian texts in translation to study Egypt’s intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, autobiography, wisdom texts, traditions, royal inscriptions, and hymns. Discussion of text analysis such as narratology. 150C. Syria and Palestine, Asia Minor, Persia.


162. Archaeology of Ancient Israel. (4) Lecture, three hours. Survey of Bronze and Iron Age archaeo- logy of Canaan and Israel through coming of Alexan- der the Great, with emphasis on relationship between archaeology and historical texts. P/NP or letter grading.

C163. Archaeology of Iraq. (4) (Formerly numbered 163.) Lecture, three hours. Designed to introduce stu- dents to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course C259. P/NP or letter grading.

C165. Egyptian Archaeology. Lecture and Seminar, three hours. Opportunity to research aspects of topics in ancient Egyptian archaeology. Topics vary each year. May be repeated for credit. Concurrently scheduled with course CM269. P/NP or letter grading.

C185D. Religions of Ancient Near East. (4) (Same as History M185D and Religion M185D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main polytheistic sys- tems of ancient Near East, with emphasis on Mesop- otamia and Syria and with reference to religion of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer, and cult, magics, wisdom, and moral conduct. P/NP or letter grading.

197. Individual Studies in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in An- cient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culmi- nating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Archaeological Research Design. (4) (Same as Archaeology M201C.) Seminar, three hours. Requi- site: Anthropology M201A, M201B. How to design archaeological projects in preparation for M.A. thesis or Ph.D. degree. Students conduct research to select subject, then write research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty member and research advisor. Individual contract required. P/NP or letter grading.

M208. Topics in Ancient Iranian History. (4) (Same as History M210 and Iranian M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsacid, and Sassanian Iran. May be repeated for credit. S/U or letter grading.

210. Late Egyptian. (4) Lecture, three hours. Requisites: courses 121A, 121B, 121C. Late Egyptian grammar and reading of both hieroglyphic and hieratic texts. May be repeated for credit. S/U or letter grading.

211A-211B. Egyptian Texts of Greco-Roman Period. (4-4) Lecture, three hours. Introduction to grammar and translation of hieroglyphic texts from Greco-Roman temples. Texts reading 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. Course 221A is requisite to 221B. Introduction to Demotic grammar and orthography. Reading of texts from various genres. May be repeated for credit with topic change. S/U or letter grading.

230. Seminar: Ancient Syria/Palestine. (4) Seminar, three hours. Examination of selected topics on political, social, and intellectual history of ancient Israel. Exploration of how historical, social, and political contexts shaped and influenced interpretation and use of biblical texts. May be repeated for credit. S/U or letter grading.

240A-240B-240C. Seminars: Sumerian Language and Literature. (4-4-4) Seminar, two hours. Readings of texts from various Sumerian periods and literary genres; selected problems in linguistic or stylistic analysis and literary history. S/U or letter grading.

M250. Seminar: Ancient Mesopotamia. (4) (Same as History M207.) 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 homework required in course M250. May be repeated for credit. S/U grading.

C259. Archaeology of Iran. (4) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course C163. S/U or letter grading.

260. Seminar: Ancient Near Eastern Archaeology. (2 to 4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

261. Practical Field Archaeology. (2 to 8) Fieldwork, two hours. Participation in archaeological excavations or other archaeological research in Near East under staff supervision. May be repeated for credit. S/ U or letter grading.

262. Seminar: Object Archaeology. (4) Seminar, two hours; laboratory, one hour. Selected topics in analysis and interpretation of Near Eastern archaeological finds in museum collections. Students work with objects in Heeramanek Collection of Los Angeles County Museum of Art. S/U or letter grading.

263. Seminar: Egyptian Monuments. (4) Seminar, two hours. Selected monuments and sites in Egypt, including Egyptian Valley, desert sites, wadis, oases, and border regions. Architecture and decoration of temples and tombs, statuary and monuments, settlement and use history, text translation of appropriate documents, including steles, monumental inscriptions, or pertinent socioeconomic texts. May be repeated for credit. S/U or letter grading.

264. Egyptian Museum Collections. (4) Seminar, two hours; laboratory, one hour. Ancient Egyptian museum collections around world, data sets, provenance and dating studies, collection history and agenda, museology, and exhibition history. May be repeated for credit with consent of instructor. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology M265.) Lecture, two hours. Theoretical understanding of depositional processes ("laws") which lead to site formation and of stratigraphic procedures to be used in recovery of embossed cultural materials. Study of issues covered in literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with help of specialists. S/U or letter grading.

C266. Egyptian Archaeology. (4) Seminar, three hours. Opportunity to research aspects of topics in ancient Egyptian archaeology. Topics vary each year. May be repeated for credit. Concurrently scheduled with course C165. S/U or letter grading.

C267A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course CM101A. S/U or letter grading.

C267B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during New Kingdom and Greco-Roman period. Concurrently scheduled with course CM101B. S/U or letter grading.

CM269. Introduction to Archaeological Sciences. (4) Same as anthropology M269. Three seminars, three hours. Study of methods of reconstructing and understanding the past. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have experimented in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological and biochemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM169. S/U or letter grading.


C277. Variable Topics in Ancient Near East. (4) Lecture, three hours; discussion, one hour. Variable topics; consult Schedule of Classes for topics to be offered in specific term. Concurrently scheduled with course C177. S/U or letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Upper Division Courses

102A-102B-102C. Intermediate Standard Arabic. (5-5-5) Lecture, six hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. P/ NP or letter grading.

103A-103B-103C. Advanced Arabic. (4-4-4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Advanced formal Arabic, including grammar, composition, and readings from classical and modern texts. Letter grading.

105. Introduction to Qur’anic and Islamic Arabic. (4) Lecture, three hours. Requisites: courses 1A, 1B, 1C. Introduction to Arabic used in Qur’an, Hadith (traditions of Prophet Muhammad), and early Islamic literature (biographies of Prophet and historical narratives). P/NP or letter grading.

M110. Thousands and One Night/All Layla Wa Layla. (4) (Same as Comparative Literature M110.) Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, *Thousand and One Nights* is most well-known work of Arabic literature in West. Examination of cycle of tales most commonly known as *One Thousand and One Nights*. History of its translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to classical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Barth, Poe, and Walt Disney). P/NP or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Arabic. (4-4-4) Lecture, three hours. Enforced requisites: courses 1A or 1B, 1C. Not for students in 111B, which is enforced requisite to 111C. Not suitable for heritage speakers. Introduction to spoken Arabic dialect of Egypt. Training in listening, speaking, and reading. P/NP or letter grading.

111S. Summer Intensive Elementary Egyptian Arabic. (4) Lecture, three hours. Knowledge of Arabic not required; not suitable for heritage speakers. Introduction to spoken Arabic dialect of Egypt. Training in listening, speaking, and reading. P/NP or letter grading.

112A-112B-112C. Advanced Spoken Egyptian Arabic. (4-4-4) Lecture, three hours. Study of Egyptian contemporary spoken Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/NP or letter grading.

115. Studies in Arabic Dialectology. (4) Lecture, three hours. Introduction to one spoken dialect of Arabic, with emphasis on speaking and listening comprehension. Dialects vary from year to year based on student interest and instructor availability and may include Iraqi, Levantine, North African, or Gulf Arabic. May be repeated for credit. P/NP or letter grading.

116A-116B-116C. Elementary Iraqi Arabic. (5-5-5) Lecture, five hours. Course 116A is requisite to 116B, which is requisite to 116C. Introduction to dialect of Arabic spoken in contemporary Iraq, with emphasis on conversational proficiency. Recognition and production of sounds of Iraqi Arabic and basic vocabulary, grammar, idiomatic expressions, and relevant cultural background through dialogues and other conversational exercises. P/NP or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from Qur’an, Tafsir, Hadith. May be repeated for credit. Letter grading.

M213. Oral Literature and Performance of Arab World. (4) (Same as Comparative Literature M213.) Lecture, three hours. Knowledge of Arabic not required. Introduction to study of living oral traditions of troubadours, storytellers, oral poets, and performers in Arabic-speaking Middle East. P/NP or letter grading.
130. Classical Arabic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from premodern literary texts, with a focus on grammatical and syntactical analysis. May be repeated for credit. Letter grading.


C141. Modern Arabic Literature. (4) (Formerly numbered 141.) Lecture, three hours. Requisite: course 102C. Conducted in English and Arabic, with all required readings in original Arabic only. Readings in modern Arabic literature, variably organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures, mixing thematic and formal analyses of literary and critical texts and making use of film, video, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C241. Letter grading.

142. Arabic Media. (4) Lecture, four hours. Requisite: course 103A. Development of facility with language of Arabic press and broadcasting. Activities include monitoring current materials via Internet; transcribing, translating, and summarizing; writing original reports in Arabic; and oral presentations and discussions. May be repeated for credit. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4) (Same as Comparative Literature M148.) Lecture, three hours. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultures of commitment (Ittizam), with possible focus on specific genres such as realism, Arabist Arab film; feminist Arab film or popular Arab film and song; topics such as nation, gender, and representation or democracy and human rights or censorship, reception, and resistance. Possible examination of various national cinemas such as Tunisian, Egyptian, Moroccan, Algerian, and Palestinian. Various musical genres such as Rai, Mizound, and Hip-Hop and relation to emergence of television and radio, national cinemas, national music industries, and iconic singers but also of video clip, satellite TV, star academy, and reality shows — all products of transnational and pan-Arab mass media. P/NP or letter grading.

150. Classical Arabic Literature in English. (4) Lecture, three hours. Readings in English; knowledge of Arabic not required. Survey of premodern Arabic culture, including law, medicine, theology, and literary prose, Hadith and Fiqh, historiography, and oratory, Qur’an, Umayyad and Abbasid poetry and oratory, reception, and resistance. Possible examination of various national cinemas such as Tunisian, Egyptian, Moroccan, Algerian, and Palestinian. Various musical genres such as Rai, Mizound, and Hip-Hop and relation to emergence of television and radio, national cinemas, national music industries, and iconic singers but also of video clip, satellite TV, star academy, and reality shows — all products of transnational and pan-Arab mass media. P/NP or letter grading.

M151. Modern Arabic Literature in English. (4) (Formerly numbered 151.) (Same as Comparative Literature M167.) Lecture, three hours. Designed for upper-division literature majors. Topics may include constructions of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, exoticism, translation, and marketability of texts; criticism may include personal narrative, novel of terror; memoirs by women and/or by refugees and exiles; 19th- and 20th-century travel narratives; Arabic romantic poetry; literature of pre-1948; rise of Arab novel. Areas may range from generic look at Arab world to narrow focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arabic literature written in other languages, namely English, Arabic, French, or Arabic. Letter grading.

M155. Al-Andalus: Literature of Islamic Spain. (4) (Formerly numbered 155.) (Same as Comparative Literature M119.) Lecture, three hours. Study of literature of medieval Islamic Spain. Introduces students to the world about interaction of Arabic and Western and Arabic and Jewish cultures and to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

M171. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M171P and History M108C.) Lecture, three hours. Designed for juniors/seniors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tamarzagh. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism, decolonization, representation of discourses and various aspects of geography, such as Aurat al-ard, Kitab al-Buldan, al-Masalik wa’l-mamalik, toponymy, and travel accounts. May be repeated for credit. S/U or letter grading.


181. Translating Arabic. (4) Seminar, three hours. Preparation: advanced proficiency in English and Arabic (at least three years of Arabic instruction or equivalent). Open to both native and nonnative speakers of English and Arabic. Training of students in methodological translation from Arabic into English, with focus on producing accurate and readable English versions of Arabic texts from variety of fields. Close reading and written translation of Arabic texts, with review of linguistic and cultural difficulties that arise in course of translation. Texts may include classical Arabic literature (novel, memoir, writing, literature, and media), and spoken Arabic (television, radio), based on student interest. Letter grading.

188FL. Special Studies: Readings in Arabic. (2-4) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and additional work in Arabic to enrich and augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between student and reading instructor. Assigning reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/senior. Supervised individual research or investigation under guidance of faculty mentor. C ultrimating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

220. Seminar: Islamic Texts. (4) Seminar, three hours. Major Islamic thinkers and their works from classical period to modern times. Coverage of doctrines and heresies of various schools of thought in Islam, such as Ahl al-sunna wa’l-jama’a, Shi’a, Mu’tazila, and Sufis. May be organized around one author and his works, multiple authors and their works, or specific topic with representative readings from various schools. Exploration of secondary literature in Arabic and other languages for student research papers. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Hebrew M231.) Lecture, three hours. Requisites: course 102C, Hebrew 102C. Reading of Judeo-Arabic texts from various schools. Exploration of sources, research tools, and methods of reading and making use of film, video, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C141. Letter grading.

250. Seminar: Premodern Arabic Literature. (4) Seminar, three hours. Readings in Arabic texts from various periods and genres, from pre-Islamic poetry and oratory and Qur’an, Umayyad and Abbasid poetry and oratory, Hadith and Fiqh, historiography, biographies, geography, and politics, Kalam, theology, asceticism, and mysticism. May be repeated for maximum of 24 units. S/U or letter grading.

251. Seminar: Modern Arabic Literature. (4) Seminar, three hours. Discussion of specific topics. Requisite: course 102C. Selected topics in modern and contemporary Arabic prose and poetry. May be repeated for credit. Letter grading.

M255. Literatures and Cultures of Maghreb. (4) (Same as Comparative Literature M255.) Seminar, three hours. Limited to graduate students. Examination of traditionally diverse literatures of Maghreb in their multiple and competing contexts of language and gender politics, religious and cultural formations, Pan-Arabism and postcolonial nationhood, Third-Worldism and economic development, modernity and globalization, immigration and citizenship, soccer industry and Rai music, mass media and Star Academy, Maghreb, and more. Readings of literatures in English and in English translations from different Maghrebian languages (particularly Arabic and French) in conjunction with theories of postcolonialism, transnationalism, post-nationalism, and postcolonial studies. S/U or letter grading.

260. Encountering Arab Paleography and Critical Edition of Manuscripts. (4) Lecture, three hours; discussion, one hour. Requisite: course 103C. Introduction to Arabic paleography and how to prepare editions of medieval manuscripts with critical apparatus and stemma. During past decades enormous number of previously unknown Arabic manuscripts have been discovered. While vast range of medieval texts have been published in editions of varying quality, equally large number of manuscripts remain unpublished. UCLA has outstanding collections of Near Eastern manuscripts covering a wide range of subjects, primarily in the fields of medicine, literature, philology, theology, law, and history. It is rich in works related to studies of theologians and scholars at different centers of learning in Iran during Safavid period noted for works of theology, Islam, philosophy, and science. Course opens this treasure to graduate students interested in editing and/or translating manuscripts. S/U or letter grading.

596. Directed Individual Study. (2 to 6) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Armenian

Lower Division Courses

1A-1B-1C. Elementary Modern Western Armenian. (5-5-5) (Formerly numbered 101A-101B-101C.) Lecture, five hours. Course 1A is recommended requisite to 1B, which is recommended requisite to 1C. Students with knowledge of Armenian should contact instructor to determine appropriate enrollment level. Armenian grammar, conversation, and exercises. P/NP or letter grading.

4A-4B-4C. Elementary Modern Eastern Armenian. (5-5-5) (Formerly numbered 104A-104B-104C.) Lecture, five hours. Course 4A is recommended requisite to 4B, which is recommended requisite to 4C. Students with knowledge of Western Armenian should contact instructor to determine appropriate enrollment level. Designed for students with little or no prior knowledge of Eastern Armenian, official idiom of Republic of Armenia. Introduction to basics of grammar and conversation. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Modern Western Armenian. (5-5-5) Lecture, five hours. Recommended requisite: course 101C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Exploration of advanced Western Armenian in following areas of competency: fluency, literacy, accuracy, and proficiency. Use of language to engage literary themes and cultural issues of historical and contemporary significance for Armenian speakers. P/NP or letter grading.

103A-103B-103C. Advanced Modern Western Armenian. (4-4-4) Lecture, four hours. Recommended requisite: course 102C. Course 103A is recommended requisite to 103B, which is recommended requisite to 103C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Exploration of advanced Western Armenian in following areas of competency: fluency, literacy, accuracy, and proficiency. Use of language to engage literary themes and cultural issues of historical and contemporary significance for Armenian speakers. P/NP or letter grading.

105A-105B-105C. Intermediate Modern Eastern Armenian. (5-5-5) Lecture, five hours. Recommended requisite: course 101C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Designed for students with advanced reading fluency and reading abilities in Armenian. Exploration of contemporary Armenian social and cultural issues through readings from critical essays, editorials, short stories, and poems written since World War II and film showings. Emphasis on enhancing advanced speaking fluency and oral and written form. Each course may be taken independently for credit. P/NP or letter grading.

106A-106B-106C. Advanced Modern Eastern Armenian. (4-4-4) Lecture, four hours. Recommended requisite: course 105C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Exploration of contemporary Armenian social and cultural issues through readings from critical essays, editorials, short stories, and poems written since World War II and film showings. Emphasis on enhancing advanced speaking fluency and oral and written form. Each course may be taken independently for credit. P/NP or letter grading.

110. History of Armenian Language. (4) Lecture, three hours. Required: course 101C or 104C. Exploration of history of Armenian language as reflected in literature created in Armenian throughout written period (5th through 20th centuries). Use of top-down approach beginning with earliest attested form, Grabar, literary version of ancient Armenian (11th through 5th centuries). Discussion of attempts at reconstructing major features of Armenian phonology and morphology in preliterary period. P/NP or letter grading.

130. Armenian Civilization under Bagratid Dynasties, 884 to 1064. (4) Lecture, four hours. Interdisciplinary investigation of interface between sociopolitical and economic factors in creation of works of art (literature, art, architecture, etc.) and how these works performed in this important period of Armenian history. Letter grading.

131. Armenian Civilization in Cilician Period, 1080 to 1375. (4) Lecture, four hours. Interdisciplinary investigation of works of art (literature, art, architecture, etc.) and how these works performed in this important period of Armenian history. Letter grading.

137. Medieval Armenian Miniature Painting. (4) (Same as Art History M173.) Lecture, three hours. Examination of cultural and historical impact of Armenian miniatures. P/NP or letter grading.

188. Variable Topics in Armenian Studies. (4) Lecture, four hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

197. Individual Studies in Armenian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Asynchronous and term work. Concurrently scheduled with course C151. P/NP or letter grading.

199. Directed Research or Senior Project in Armenian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


223A-223B-230C. Elementary Classical Armenian. (4) Lecture, three hours. Concurrently scheduled with course 230A, which is requisite to 230B, which is requisite to 230C. Introduction to grammar of classical literary language (5th to mid-19th century) and guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4-4-4) Lecture, three hours. Required: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Philological School of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

250A-250B. Seminars: Armenian Literature. (4-4) Seminar, three hours. Selected topics from various periods of Armenian literature. May be repeated for credit. S/U or letter grading.

251. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in course of last two centuries as result of exposure to European thought and expression. Concurrently scheduled with course C151. S/U or letter grading.
Upper Division Courses

102A-102B-102C. Intermediate Hebrew. (5-5-5) Lecture, five hours. Requisites: course 101A. Course 102A is requisite to 102B, which is requisite to 102C. Amplication of grammar; reading of texts from modern literature. P/NP or letter grading.

103A-103B-103C. Advanced Hebrew. (4-4-4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Students with prior knowledge of Hebrew who did not take courses 102A, 102B, and 102C should consult instructor to ascertain correct level. Designed for students with intermediate speaking fluency and reading abilities in Hebrew. Introduc tion to modern Hebrew literary texts. P/NP or letter grading.


110C. Readings in Biblical Hebrew. (4) Lecture, three hours. Requisites: courses 110A, 110B. Continuation of course 110B. Reading of prose texts from Hebrew Bible, particularly from Former Prophets (Joshua-Luke). Focus on main aspects of historical grammar of biblical Hebrew. Reading and translation of various texts from different historical periods of Hebrew language, including texts from Ar captan, Gezer Calendar, and 2 Maccabees. Increased understanding of Hebrew verball, including different verbal patterns, their morphology, and syntactic function in biblical Hebrew prose. P/NP or letter grading.

111A. Israeli Society through Hebrew Song and Video. (4) Lecture, three hours; laboratory, one hour. Requisite: course 101C. Use of contemporary Israeli song and video to explore Israeli collective imagination and various Israeli sociocultural issues to familiarize students with different aspects of Israeli daily life and popular culture, while teaching them multiple speech acts in both formal and informal contexts and enriching their Hebrew vocabulary and its retention. P/NP or letter grading.

111B-111C. Conversational Hebrew. (3-3) Lecture, two hours; laboratory, one hour. Requisite: course 111A. Course 111B is requisite to 111C. Vocabulary used in daily life, different speech acts in both formal and informal contexts, and various Israeli sociocultural issues using different kinds of media, such as video, internet, and newspapers. P/NP or letter grading.

112. Readings in Modern Scholarly Hebrew. (2) Seminar, two hours; laboratory, one hour. Requisite: course 102C. In-depth reading and discussion of selected scholarly articles in modern Hebrew for various disciplines: Bible study, Jewish history and folklore, sociology, and literary criticism. Development of student proficiency in vocabulary, terminology, and ideas in these fields while enhancing comprehension of complex syntactical structures in Hebrew. May be repeated for credit. P/NP or letter grading.

M113. Contemporary Israeli Short Stories/Novel las and Films in English. (5) (Formerly numbered 113.) (Same as Jewish Studies M113.) Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine preexistent narrative. Rethinking and reexamination of Israeli condition and Zionist condition and skepticism about legitimacy of meta narratives to redefine blurred outline of Israeli identity and subvert its underpinning formative myths. They simultaneously display loss of faith in representation as dimension of language, including ability of texts to penetrate to its hidden meaning. Using periphery discourse, these texts challenge modernist aesthetic and power paradigm. P/NP or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with the commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for maximum of 16 units. Letter grading.

130. Rabbinic Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishna, Talmud, and/or Midrash. May be repeated for credit.


C140. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of modern 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, and 103C, or equivalent knowledge of Hebrew. Study of Hebrew 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.

170. Dead Sea Scrolls. (4) Lecture, three hours. Requisite: course 102C. Readings in biblical scrolls from Dead Sea, with focus on grammar, paleography, and biblical interpretation in Dead Sea Scrolls. May be repeated for credit. P/NP or letter grading.

180A-180B. Survey of Hebrew Grammar. (4-4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Descriptive and comparative study of Hebrew grammar: phonology and morphology. Topics include development of Hebrew language from biblical times to present day, its relation to Arabic and other Semitic languages, methods of language expansion in Israeli Hebrew, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic), P/NP or letter grading.

188FL. Special Studies: Readings in Hebrew. (2 to 8) Seminar, to be arranged. P/NP or letter grading.

199. Directed Research or Senior Project in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical interpretation and role of Dead Sea Scrolls in formative Judaism. Reading in original manuscripts from Dead Sea Scrolls. May be repeated for credit. S/U or letter grading.
Upper Division Courses

102A-102B-102C. Intermediate Persian. (5-5-5) Lecture, six hours. Requisite: course 101C or 201C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

103A-103B-103C. Advanced Persian. (4-4-4) Lecture, three hours. Requisite: course 102C. Students who do exceptionally well in course 202C may be permitted to enroll with consent of instructor. Each course may be taken independently for credit. P/NP or letter grading. Tutorial required. Classical Persian Poetry: 103B. Introduction to Classical Persian Prose; 103C. Introduction to Contemporary Persian Prose and Poetry. 104. Philosophical Texts. (4) Lecture, three hours. Readings in English. Introduction to wide selection of philosophical texts in translation. Identification of major philosophical themes in ontology, epistemology, psychology, and cosmology through texts, with study in detail. P/NP or letter grading.

110A-M105B-M105C. Baha'i Faith in Iran. (4-4-4) (Same as Religion M105A-M105B-M105C) Lecture, three hours. Readings in English. Each course may be taken independently for credit. P/NP or letter grading. Tutorial required. Historical and Social Settings of Baha'i. Historical and social settings of Baha'i, emphasizing the role that Baha'i teachings and principles that broke mental and physical isolation of Shi'i Persia and ushered in modernity. P/NP or letter grading. 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 Kurdish (Sorani). Graded readings, translation, composition (level one), conversation (levels one and two). P/NP or letter grading. 115A-M115B-M115C. Elementary Azeri. (4-4-4) (Same as Turkic Languages M115A-M115B-M115C) Lecture, five hours. Knowledge of Northwest Persian and Iranian helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading. 120. Comparative Study of Six Major Persian Poets. (4) Lecture, two hours; discussion, one hour. Preparation: knowledge of Persian. Lectures in Persian, readings in English and Persian. Comparative study of six major Persian poets from 10th to 14th century who shaped sense of Persian identity and delineated chief distinguishing characteristics of Persian thought and culture. May be repeated for credit with consent of instructor. P/NP or letter grading. 130. Intellectual History of Jews of Persia. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Jews in Persia by highlighting select areas of Judeo-Persian studies and focusing on various authors and their work. P/NP or letter grading. 131. Introduction to Judeo-Persian Language and Culture. (4) Lecture, six 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 (Adabiyat). (4) Lecture, three hours. Requisite: course 102C. Study of major Persian poets and prose writers: prose — Sohravardi, Hamadani, Nasafi, Iqbal, and others; poetry — Hafez, Sa'adi, Rumi, Bahar, Dekhdora, and others. May be repeated for credit with consent of instructor. P/NP or letter grading. 141. Persian Analytical Prose. (2) 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. 150A-150B. Survey of Persian Literature in English. (4-4) Lecture, three hours. Knowledge of Persian not required. Each course may be taken independently for credit. 161A-161B-161C. Elementary Middle Iranian. (4-4-4) Lecture, three hours. Preparation: knowledge of Persian desirable. Course 161A is requisite to 161B, which is requisite to 161C. Studies in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian, Khitanes, Bactrian). May be repeated for credit with consent of instructor. P/NP or letter grading. 169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sasanian period. 170. Religion in Ancient Iran. (4) History of religion in Iran from the beginning to the Mohammadan conquest; Indo-Iranian background, Zoroastrianism, Manichaean, Mazdakism. 181A-181B. Introduction to Modern Iranian Studies. (4-4) Lecture, three hours. Preparation: knowledge of Persian. May be repeated for credit with consent of instructor. P/NP or letter grading. 188FL. Special Studies: Readings in Iranian. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. Reading and writing. 197. Individual Studies in Iranian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading, paper, and evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading. 199. Directed Research or Senior Project in Iranian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading. Graduate Courses


**Upper Division Courses**

M110. Introduction to Islam. (5) (Formerly numbered 110.) (Same as Religion M109.) Lecture, three hours. Two hours. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading. 130. Shi’a in Islamic History. (4) Seminar, three hours; discussion, one hour. Rise and development of Shi’a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaidis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform. 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, this course presents balanced picture of enormous ideological variety found in contemporary Muslim world. Examination of representative writings from wide spectrum of modern Islamic intellectuals and writers. Letter grading. 197. Individual Studies in Islamic Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading. 199. Directed Research or Senior Project in Islamic Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulative paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading. **Graduate Courses**


**Lower Division Courses**

M10. Social, Cultural, and Religious Institutions of Judaism. (5) (Formerly numbered 10.) (Same as Religion M10.) Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer, and the messiah; history of Talmud and synagogues; evolution of folk beliefs and year-cycle and life-cycle practices. P/NP or letter grading. **Upper Division Courses**

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) (Same as Hebrew M113.) Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine predominance of modernist-Zionist narrative. Recycling and reexamination of Jewish condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subvert its underpinning fictional myths. They simultaneously display loss of faith in representative dimension of language, including use of texts to penetrate to its hidden meanings. Using periphery discourses, these texts strive to change modernist aesthetic and power paradigm. P/NP or letter grading. 130. Modern Jewish Religious Movements and Their Ideologies. (4) Lecture, three hours. Introduc- tion to and overview of Jewish religious movements and evolution of their ideologies in the Western world from time of the present. 135. Jewish Law. (5) Lecture, three hours. Introduc- tion to Jewish law from biblical literature to modern legal systems. Comparison of Jewish legal systems to modern secular systems and discussion of ethical di- menstrations of legal and letter grading. 140A-140B. American Jewish History. (4-4) Lecture, three hours. Examination of social and cultural history of American Jewish community from its incep- tion to the present, with emphasis on integration of successive immigrants and development of institu- tions. P/NP or letter grading. 140A. 1654 to 1914; 140B. 1914 to the Present. 141. Modern Anti-Semitism. (4) Lecture, three hours. Examination of modern anti-Semitism from the 18th century to the present; comparison of modern racist ideologies with premodern theories; case studies (e.g., Dreyfus affair, Bellis Trail; Holocaust); Jewish re- sponses to these phenomena. 142. Modern Israel: Politics, Society, Culture. (4) Lecture, three hours. Examination of evolution of Isra- el — its changing society, volatile domestic and for- eign politics, and dynamic culture — from its founda- tion to and overview of its ideological, cultural, and social foundations of the State of Israel. P/NP or letter grading. 143. Introduction to Jewish Folklore. (4) Lecture, three hours. Nature of Jewish folklore; narrative, folk song, folk art, folk religion, and methods and perspec- tives used in their analysis. May be repeated for credit. 144. Zionism: Ideology and Practice in Making of Jewish State. (4) Lecture, three hours; discussion, one hour. History of Zionism on backdrop of Europe- an, world, and Jewish historiography: ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading. M150A-150B. Hebrew Literature in English. (4-4) Lecture, three hours. Each course may be taken independent for credit. May be repeated for credit. M151A. Diaspora Literature. (Same as Comparative Literature M166.) Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts written originally in Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. 151B. Israeli Literature. Study of translations from Hebrew literature written in Israel and reflecting cardinal facets of Israeli life: social issues, security problems, identity of the state, role of individual. Analysis of formal as- pects of each work. 155. Jewish Mysticism, Magic, and Kabbalah. (4) (Formerly numbered 155.) (Same as Religion M155.) Lecture, three hours. Exploration of types of Jewish mystical thought and practice from Hebrew Bib- le to medieval Kabbalah and its modern offshoots. P/ NP or letter grading. M162. Israel Seen through Its Literature. (4) (Same as Comparative Literature M162.) Lecture, three hours. Attempt to impart profound understand- ing of Israel as seen through its literature. Examination of variety of literary texts — stories, novels, and poems — and reading of them in context of their his- torical backgrounds. P/NP or letter grading. 170. Dead Sea Scrolls and Early Judaism. (4) Lecture, three hours. Introduction to the Dead Sea Scrolls in English translation. Survey of literature, community of Kharbit Qumran, and their place in early Judaism. P/NP or letter grading. 175. Modern Israeli Literature Made into Films. (5) (Formerly numbered 75.) Lecture, four hours; discus- sion, one hour. Reading, analysis, and discussion of modern Israeli literature that was made into films, in- cluding literary works of prominent Israeli authors (S. Yizhar, A.B. Yehoshua, Amsz Oz, and Yitzhak Ben Ner) that were translated into English and had filmic ad- aptations. Letter grading. 177. Variable Topics in Jewish Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading. M181. Topics in Jewish History. (4) (Same as His- tory M181.) Lecture, three hours; discussion, one hour (when scheduled). Examination of major issues in Jewish history. May be repeated for maximum of 16 units with topic and/or in- structor change. P/NP or letter grading. M182A. Ancient Jewish History from Patriarchs to Rabbis. (4) (Same as History M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Sur- veys of social, political, and religious developments. P/ NP or letter grading.

Graduate Course


Lower Division Courses


50C. Making and Studying Modern Middle East. (5) Formerly numbered Near Eastern Languages 50C.) Lecture, three hours; discussion, one hour. Exploration of three intellectual worldviews that competed for hegemony in medieval Jewish world — rabbinic Judaism, medieval nationalism as embodied in philosophy, and cabala. Medieval Jewish worldviews and their modern descendants. P/NP or letter grading.

Middle Eastern Studies

Lower Division Courses


50C. Making and Studying Modern Middle East. (5) Formerly numbered Near Eastern Languages 50C.) Lecture, three hours; discussion, one hour. Exploration of three intellectual worldviews that competed for hegemony in medieval Jewish world — rabbinic Judaism, medieval nationalism as embodied in philosophy, and cabala. Medieval Jewish worldviews and their modern descendants. P/NP or letter grading.

Near Eastern Languages

Lower Division Course

520. Bibliography and Method of Near Eastern Languages and Literature. (4) Lecture, two hours. Required 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.

201. Study of Religion: Theory and Method. (4) Seminar, three hours. Preparation: familiarity with at least two major world religions. Designed for advanced undergraduate and graduate students. Introduction to variety of theories and methods used in academic study of religion. In attempt to demonstrate importance that historical, cultural, and social exigencies play in development of religious traditions, discussion of theories comparatively and in their historical context, with focus on presuppositions and core concepts and implications of each theory. Letter grading.

210. Survey of Afro-Asiatic Languages. (4) Lecture, three hours. Survey of structures of a number of representative languages from various major branch-es of Hamito-Semitic (Afro-Asiatic) language family.

222. History, Memory, and Identity in Israel. (4) Seminar, three hours. Israeli society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and ancient events, and how these are represented by historical scholarship as well as in popular media and public spaces. Consideration of the post-Holocaust era, which has become central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israeli present. Examination of historiographical debates and their reflections in range of media to make some sense of ever-changing past, ways in which it shapes political, ideological, and cultural identities in present, and where meeting points are between popular discourse and work historians do. Examination of conflicting readings of past and its representation in Israeli historiography and in shaping of collective memory and identity. S/U or letter grading.


290. Seminar: Paleography. (4) Seminar, three hours. Provides students with ability to cope with various manuscripts.

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

495. Preparation for Teaching Language and Literature in Near Eastern Languages and Cultures. (2) Seminar, two hours. Problems and methods of presenting literary texts as exemplary materials in teaching of language and literature in Near Eastern Languages and Cultures. Theory and classroom practice, with individual counseling and faculty evaluation of teaching assistant performances. May not be applied toward M.A. 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 recognized achievement of UCLA students in courses taken under cooperative arrangements with USC, S/U grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grade.


Turkish Languages
Upper Division Courses

101A-101B-101C. Elementary Turkish. (S-5-5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Introduction to daily conversation, and elementary composition drills. P/NP or letter grading.

102A-102B-102C. Advanced Turkish. (4-4-4) Lecture, five hours. Requisites: courses 101A, 101B, and 101C. Continuation of the study of the Turkish language. Grammar, reading, and conversation. Readings in modern literature and social science texts. May be repeated for credit. S/U or letter grading.

111A-111B-111C. Elementary Uzbek. (4-4-4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

112A-112B-112C. Advanced Uzbek. (4-4-4) Lecture, three hours; laboratory, two hours. Descriptive Uzbek grammar, reading, and analysis of Uzbek literary and folkloric texts. High-style composition and conversation.

114A-114B-114C. Bashkir. (4-4-4) Lecture, three hours. Reading, conversation, and lexicology analyzed on today's native material. Knowledge of Russian, Turkish, and Iranian helpful. (Formerly numbered 115A-115B-115C.) (Same as Russian 115A-115B-115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Iranian helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.

116A-116B-116C. Advanced Azeri. (4-4-4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: placement test. Proficiency-based course in descriptive Azeri grammar. Reading and analysis of Azeri literary and folkloric texts in new writing system. High-style composition and conversation. May be repeated for credit. Letter grading.

120A-120B-120C. Descriptive Grammar of Modern Turkish. (4-4-4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 102A, 102B, and 102C, or 111A, 111B, and 111C, or 180. Systematic and comprehensive grammatical survey of modern Turkish language, official language of the newly independent Republic of Uzbekistan. Phonemics, morphology, syntax, paraparemology, and lexico-grammar analyzed on today's native material. Letter grading.

160. Turkish Tradition. (4) Lecture/discussion. Preparation: entrance examination. Survey of cultural history of the Turks, as seen primarily through their literature, from their early history to the present.

165. Islamic Literary Heritage of Central Asia. (4) Lecture, two hours; discussion, one hour. Systematic survey of Islamic documents produced in Turkish and Persian in Central Asia, with reading of primary sources in English translation. Study of special characteristics of Central Asian Islam.


190. Modern Turkish Languages and Peoples, (4) Lecture, three hours. Required of students in Turkish program and recommended for students in Soviet studies. Ethnic and linguistic survey of the Turkish peoples.

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

199. Directed Research or Senior Project in Turkish. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210A-210B-210C. Introduction to Ottoman. (4-4-4) Lecture, three hours. Introduction to literary language 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 as applied to Ottoman; Arabic and Persian elements in grammar and vocabulary. Readings of historical and literary texts.


230A-230B-230C. Historical and Comparative Survey of Turkic Languages. (4-4-4) Lecture, three hours. Requisite: course 180. Exotic and living Turkic languages of the Turks and related peoples in phono- metric, grammatical, and lexical systems from the 8th to 20th century. Historical and contemporary survey of Turkic languages on comparative basis.

235A-235B. Middle Turkish: Karakhanid, Khazarid, Mamluk-Kipchak, and Old Anatolian. (4-4) Lecture, three hours. Requisite: course 180. Survey of Middle Turkish documents. Textual and linguistic analysis of Middle Turkish texts from various literary genres.

240A-240B-240C. Advanced Ottoman. (4-4-4) Lecture, three hours. Requisites: courses 210A, 210B, 210C. Emphasis on different genres of Ottoman writing (belles lettres as well as 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 basic Islamic source material written in Chaghatay literary language. Reading and composition 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 from mid-19th century to the present.
Scope and Objectives

The Department of Neurobiology offers advanced training leading to the Ph.D. degree. Graduates can anticipate an academic career in the college or university level or as basic science researcher at a research institute or biotechnology company. In accord with this, the department strives to produce graduates soundly qualified both for teaching at the college or university level and for the conduct of original research in neurobiology.

The overall objective of the Ph.D. program is to provide a strong theoretical and practical foundation in the area of cellular and systems neurobiology, with the goal to develop a better understanding of normal and pathological brain function and behavior. The graduate program provides (1) basic and advanced instruction in the fundamentals of neuroscience, (2) advanced independent research training in the areas of cellular, structural, and systems neurobiology, and (3) teaching experience in undergraduate, graduate, and professional (dental and medical) courses in neuroscience. The program is targeted toward highly qualified and self-motivated doctoral students who take advantage of a flexible curriculum characterized by extensive informal and formal interactions with faculty in small groups and on an individual tutorial basis.

The curriculum is structured to allow students extensive opportunities for critical examination of contemporary neuroscience literature and research and for the development of oral and written communication skills.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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 Neurobiology offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Neurobiology.

Medical History

Upper Division Courses

107A-107B. Historical Development of Medical Sciences. (4-4) Lecture, three hours. Major contributions of medicine and medical personalities from earliest times. P/NP or letter grading. 107A. Contributions of medicine and medical personalities from earliest times through 1650. 107B. Subject in the period from 1650 through the 19th century. Illustrated lectures, class discussion, and required readings from selected texts.

M169. History of Neurosciences. (4) Same as Neurobiology M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

Graduate Course

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 Course

88. Lower Division Seminar: Special Topics in Neurobiology. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Entry-Level Writing requirement. Variable topics seminar that examines specific issues or problems and ways that professionals in neurobiology approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

Upper Division Courses


M168. Ideas and Experiments in History of Physiology. (4) Same as Physiological Science M168.) 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, 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) Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

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

199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in anatomy and related subject areas appropriate for training of partic-
225. Functional Organization of Visual System. (2) Seminar, three hours. Preparation: basic neuroscience course. Recommended: neuroanatomy, neurophysiology, and/or neural systems courses. Designed for neuroscience, cell biologists, and psychologists. Baseline organizational, physiological, and functional principles of visual system and how visual information is processed at different levels of nervous system. Structure, microcircuitry organization and function of retina, central visual nuclei, and primary cortical areas mediating visual behavior. S/U or letter grading.


270. Joint Seminar: Neuroscience Lectures. (1) Seminar, one hour. Formal lectures on current research topics in neuroscience by speakers from national, international, and local neuroscience communities. S/U grading.

M287. Dynamics of Neural Microcircuits. (4) (Same as Neuroscience M287.) Lecture, two hours, discussion, two hours; laboratory, two hours. Topics include hypothalamus, cardiovascular system, breathing, food intake and metabolism, water intake and body fluids, neuroendocrine systems, circadian timing, sleep and dreaming, psychosexual 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.

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M204.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Molecular, Cell, and Developmental Biology M220 and Neuroscience M201.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M200C. Sensory Systems Neurobiology. (4) (Same as Neuroscience M221.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neurobiology, including sensory transduction, behavioral, and cognitive audition, vision, and somatosensory system. Letter grading.

200D. Motor Systems Neurobiology. (4) Lecture, four hours. Fundamental topics in motor systems neurobiology, including muscle, motor units, and motor-neuron 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 hypothalamus, cardiovascular system, breathing, food intake and metabolism, water intake and body fluids, neuroendocrine systems, circadian timing, sleep and dreaming, psychosexual 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. Requirements: Physiological Science 111A (or M180A or Physics 6B), 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200G. Biology of Learning and Memory. (4) (Same as Molecular, Cellular, and Integrative Physiology M200G, Neuroscience M220, and Psychology M208.) Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

220. Structural Neurobiology. (2) Lecture, two hours; discussion, two hours; laboratory, two hours. Introduction to molecular structure of chemical, electrical, and mixed synapses as determined by imaging methods such as electron tomography. Comprehensive review of current principles governing synaptic transmission and balanced account of some of most topical areas of field, such as hemifusion, kiss and run, and active exocytosis. Laboratory sessions review methods for preparing samples through in-depth analysis of imaging strategies. Computer laboratory sessions allow demonstration of data processing and interpretation. Three other seminar discussion-provision-forum for further inspiration as well as tackling any questions or difficulties that may arise from laboratory and lectures. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.
Neurology

Upper Division Course

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

NEUROSCIENCE

Interdepartmental Undergraduate Program

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Scott H. Chandler, Ph.D., Chair

Faculty Committee

Ellen Carpenter, Ph.D. (Psychiatry and Biobehavioral Sciences)

Scott H. Chandler, Ph.D. (Integrative Biology and Physiology)

Carlos V. Grijalva, Ph.D. (Psychology)

Patricia E. Phelps, Ph.D. (Integrative Biology and Physiology)

Joseph B. Watson, Ph.D., in Residence (Psychiatry and Biobehavioral Sciences)

Stephanie White, Ph.D. (Integrative Biology and Physiology)

Scope and Objectives

Neuroscience seeks to understand the brain in health and disease. Topics of fundamental interest include perception, cognition, learning, memory, motor control, and regulation of body function. The undergraduate interdepartmental program seeks to explore the principles and concepts of this broad range of nervous system function at many levels of analysis, including molecular, cellular, synaptic, network, computational, and behavioral.

Undergraduate Study

The Neuroscience major is a designated capstone major. Undergraduate students have the option of conducting two terms of independent research within a faculty laboratory or completing an advanced laboratory methods course with a series of research modules. Through their capstone work, students demonstrate ability to generate testable scientific hypotheses and develop a research plan to test such hypotheses; work on research projects independently and in small groups; evaluate and discuss primary literature and the validity of hypotheses generated by others; communicate effectively orally and in writing; and demonstrate creative thinking.

Neuroscience B.S.

Capstone Major

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4, 23L; 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; one course from Statistics 10 or 13.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Neuroscience major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, and one statistics course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissions_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

The Neuroscience major consists of 11 courses (approximately 47 units). Consult respective departmental or program listings for course descriptions.

Required Core: Neuroscience M101A (with grade of C– or better for Neuroscience majors), M101B, M101C, 102, Chemistry and Biochemistry 153A, 153L. Psychology 115 cannot be substituted for Neuroscience M101A; however, Physiological Science 111A can be substituted.

Elective Options: One course from each of the following three options:


Molecular, Cell, and Developmental Neuroscience: Molecular, Cell, and Developmental Biology 162, Neuroscience M130, M145, M148, C177, 180, 181, 182, 191C, Physiological Science C126, M145, 146, 147, M148, M181, or Psychology M117J.


Capstone Research Options: (1) Neuroscience 101L or (2) Neuroscience 198A and 198B, or 199A and 199B. Students who select the Neuroscience 101L capstone research option must take four upper division electives, with at least one from each of the three elective options. Students who select the Neuroscience 198A and 198B, or 199A and 199B option must take three upper division electives, one from each elective option.

No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 198 or 199 in any combination) may be applied toward the major. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in all upper division courses taken for the major.

Honor Program

The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in a thesis. Majors who have completed all preparation courses with a grade-point average of 3.0 or better and an overall GPA of 3.2 or better may apply for admission to the honors program. Applications and program requirements are available in the Neuroscience Undergraduate Office at http://www.neurosci.ucla.edu. Students must submit the application before beginning their upper division honors requirements. After completion of all requirements and with the recommendation of the faculty sponsor and a second reader of the thesis, the chair confers honors at graduation.

Neuroscience Minor

The Neuroscience minor is designed to allow students in other majors an opportunity to explore the interdisciplinary field of neuroscience in a structured and rigorous way, while pursuing a major field of study in another discipline at the same time.

To enter the minor, students must have an overall grade-point average of 2.0 or better and a 2.5 GPA in the requisite courses for Neuroscience M101A and M101B.

Nonscience majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are requisites to the upper division course requirements.

Required Upper Division Courses (approximately 31 units): Neuroscience M101A, M101B, M101C (5 units each) and four elective courses selected from 101L, 102, 199A and 199B, and from any of the three elective options listed under the Neuroscience major.

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


M119N. Visual System. (4) Same as Psychology M119N.) Lecture, three hours. Requisite: course M101A or Psychological Science 111A or Psychology 115. Ability to image and analyze visual world is truly a remarkable feat. Coverage of anatomy and physiology of visual processing from retina to visual cortex through lectures, extensive reading, and discussions. P/NP or letter grading.

M130. Biological Bases of Psychiatric Disorders. (4) Same as Molecular, Cellular and Developmental Biology M181, Psychological Science M181, Psychiatry M181, and Psychology M181.) Lecture; three hours. Requisite: course M101A or Molecular, Cellular, and Developmental Biology M175A or Psychological Science M180A or Psychology M171A or Psychological Science 111A or Psychology 115. Underlying brain systems required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

M148. Neuronal Signaling in Brain. (4) (Same as Psychological Science M148.) Lecture, three hours; discussion one hour. Requisites: courses M101A or Psychological Science 111A or M180A, M101B (or Psychological Science 111A or Psychology 115). Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

C172. Neuroimaging and Brain Mapping. (4) Lecture, three hours. Requisite: course M101A (or Molecular, Cellular, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A or Psychological Science 111A or Psychology 115. Review of genomic approaches for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organisms considered as well. Letter grading.

178. Human Electroencephalography and Evoked Potentials in Research and Clinical Diagnosis. (4) Seminar. Four hours. Enforced requisite: course M101A. Not open for credit to students with credit for course 191A, seminar 1. Enforced requisite: course 191A, seminar 1. Emphasis on human electroencephalogram (EEG) and various forms of sensory-evoked potentials. Introduction to number of experimental paradigms that allow for encoding and decoding brain signals from brainstem to cortex. Letter grading.


180. Genetic, Molecular, and Genomic Approaches to Neural Development and Disease. (4) Seminar, three hours. Enforced requisite: courses M101A, M101B. Not open for credit to students with credit for course 191C, seminar 3. In-depth study of genetic, molecular, and genomic approaches to studying nervous system development and disease. Overview of current technologies used to generate mouse models for genetic and phenotypic analysis. Review of techniques for studying development and disease. Integration of genomic approaches and characterization gene(s) involved in these processes. Emphasis on mouse models, but other model organisms considered as well. Letter grading.

181. Cellular and Molecular Mechanisms of Learning and Memory. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to students with credit for course 191C, seminar 2. Introduction to learning and memory. Integration of molecular and molecular approaches to learning and memory. Learning and memory deficits in neurospsychiatric diseases. LTP and LTD models. Letter grading.


191A-191B-191C. Variable Topics Research Seminars: Neuroscience. (4-4-4) Seminar, three hours. Topics: introduction to one or more aspects of neuroscience. Reading, discussion, and development of culminating project. May be applied as elective only in specific area of group 2. Each course may be repeated once for credit. P/NP or letter grading. Behavioral and Cognitive Neuroscience. Requisite: course M101A or Psychological Science 111A. 191B. Systems and Integrative Neuroscience. Requisite: course M101A or Psychological Science 111A. 191C. Molecular, Cellular, and Developmental Neuroscience. Enforced requisite: course M101B.

191H. Honors Seminars: Neuroscience. (4) Seminar, four hours. Preparation; one statistics course (Statistics 10 or equivalent). Limited to neuroscience honors program students. Instruction in principles of scientific method, ethics, and written and oral communication. Emphasis on completion of research projects. Presentation of individual research. May not be applied toward elective requirements for major. Must be taken during Winter Quarter of academic year that students enroll in courses 198A and 198B. Letter grading.

192. Practicum in Neuroanatomy for Undergraduate Assistants. (2) Seminar, three hours; laboratory, one hour. Enforced requisite: courses M101A and 102, with grades of C– or better. Limited to upper division majors. Training and supervised practicum in neuroanatomy for undergraduate assistants. Students assist faculty members and graduate teaching assistants in laboratory only. May not be applied toward elective requirements and may not be repeated for credit. P/NP or letter grading.
192B. Project Brainstorm: Neuroscience K-12 Outreach. (4) (Formerly numbered 195.) Seminar, one hour; fieldwork, three hours. Limited to juniors/seniors. Course to be supervised by faculty and teaching assistant advisers. Project Brainstorm is K-12 science education outreach program of Brain Research Institute (BRI) and Neuroscience Ph.D. and undergraduate programs that stimulates interest in science for children and young adults in grades K-12 by providing hands-on learning experiences that emphasize function and importance of brain. Students expected to prepare age-appropriate lesson plans to be used in Project Brainstorm classroom visits. Students meet on regular basis with supervisors and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated twice for credit. P/NP grading.


198A. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum. Requisites: courses 99, M101A. Limited to neuroscience honors program students. Directed independent research involving extensive reading and development of honors thesis or comprehensive project under direct supervision of faculty member. For departmental honors, students must also take course 191H. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Requisite: course 198A. Continued reading and research that culminate in honors thesis under direct supervision of faculty member. For departmental honors, students must also take course 191H. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. Letter grading.

199A. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisites: courses 99, M101A. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. Maximum of 8 units of courses 199A, 199B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

199C. Continued Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Enforced requisites: course 198B or 199B. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued reading and research that culminate in report under direct supervision of faculty mentor. May not be applied toward major. May be repeated for credit. Individual contract required. Letter grading.

NEUROSCIENCE

Interdepartmental Graduate Program David Geffen School of Medicine

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Thomas J. O’Dell, Ph.D. (Physiology)
Thomas S. Otis, Ph.D. (Neurobiology)
Alvaro Sagasti, Ph.D. (Molecular, Cell, and Developmental Biology)

Scope and Objectives

The interdepartmental Neuroscience Ph.D. Program prepares students for careers in neuroscience research and education. The hallmark of the program is an integrated approach to study of the nervous system, using the multi-level analytical tools of molecular, cellular, systems, and/or behavioral biology, as well as quantitative approaches from the fields of mathematics, physics, and engineering. Students working at one or two analytical levels nevertheless learn to appreciate the methods and advances of other levels of analysis. Emphasis is both on mechanisms of neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmnintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Neuroscience Program offers the Doctor of Philosophy (Ph.D.) degree in Neuroscience.

Neuroscience Graduate Courses

M201. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Molecular, Cell, and Developmental Biology M220 and Neurobiology M200B.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotropic factors. Letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neurobiology M220G and Physiology of the Nerve Cell M220.) Lecture, three hours; discussion, two hours. Requisites: Physiological Science 111A (or M180A or Physics 8B). 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M203. Neuroanatomy: Structure and Function of Nervous System. (4) (Same as Bioengineering M203.) Lecture, three hours; discussion/laboratory, three hours. Anatomy of central and peripheral nervous system at cellular histological and regional systems level, with emphasis on contemporary experimental approaches to morphological study of nervous system in discussions of circuitry and neurochemical anatomy of major brain regions. Consideration of representative vertebrate and invertebrate nervous systems. Letter grading.

M204. Synapses, Cells, and Circuits. (4) (Same as Neurobiology M200A.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topics include neural ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

205. Systems Neuroscience. (4) Lecture/discussion, four hours. Introduction to fundamentals of systems neuroscience, with emphasis on integration of molecular mechanisms, cellular processes, anatomical circuits, and behavioral analysis to understand function of neural systems. Letter grading.

M206. Neuroengineering. (4) (Same as Bioengineering M260 and Electrical Engineering M255.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or 6B. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, EOG), intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Debate on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, peer review, use of animals and humans in biomedical research, conflicts of interest, technology, and scientific integrity. S/U grading.


215. Variable Topics Research Literature Seminars: Neuroscience. (1) Seminar, two hours. Critical discussion and analysis of current literature for various neuroscience research topics. Only one topic may be taken twice and applied toward neuroscience graduate requirements. S/U grading.

M220. Biology of Learning and Memory. (4) (Same as Molecular, Cellular, and Integrative Physiology M200G, Neurobiology M200G, and Psychology M208.) Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

M221. Sensory Systems Neurobiology. (4) (Same as Neuroscience M200C.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems: role of sensory transduction, cell biology, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

M230. Molecular and Cellular Mechanisms of Neuronal Impairment and Repair. (4) (Same as Physiological Science M210 and Physiology M210.) Lecture, four hours; discussion, one hour. Requisite: course M202. Introduction to mechanisms of synaptic processing. Selected problems include cell death, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.


240. Phenotypic Measurement of Complex Traits. (4) Lecture, three hours. Preparation: background in human genetics helpful. Integrative approach to understanding gene to behavior pathways by examination of levels of phenotype expression across systems (cell, brain, organism), across species (invertebrate, fly, mouse, human), and throughout development across varying environmental milieus. Using examples from human disorders such as schizophrenia and Alzheimer’s disease, linking of these diverse approaches in genetic research to map out integrative system of understanding basis of complex human behavior. Emphasis on basic understanding of methods used at each level of phenotype analysis, along with major resources that can be accessed to gain insight to gene-behavioral links. Letter grading.

250. Neural Development and Repair. (4) Lecture, four hours. Specific training in neural development and repair. Each module offers different research topics. Only one topic may be taken twice and applied toward neuroscience graduate requirements. S/U grading.

M257. Advanced Magnetic Resonance Imaging. (4) (Same as Biomedical Physics M266 and Psychology M266.) Lecture, four hours. Starting with basic principles, presentation of physical basis of magnetic resonance imaging (MRI), with emphasis on developing advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.

CM227. Neuroimaging and Brain Mapping. (4) (Same as Physiological Science M272 and Psychology M271.) Lecture, three hours. Requisites: courses M201, M202. Theory, methods, applications, assumptions, and limitations of neuroimaging. Techniques, methodology, experiments, and results obtained thus far. Emphasis on understanding the relationship between imaging 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.

M273. Neural Basis of Memory. (4) (Same as Psychiatry M270.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurochemical data integrated into models for how behavioral phenomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

275. Advanced Techniques in Neurobiology. (2) Lecture, one hour; laboratory, one hour. Preparation: basic biology and chemistry. Designed to provide introduction and, when possible, practical demonstration of a number of techniques used in neurochemical research, with emphasis on techniques used for identification, measurement, and visualization of compounds thought to be important as mediators of intercellular communication in central nervous system. S/U or letter grading.

CM277. Drugs of Abuse from Neurobiology to Policy and Education. (4) (Formerly numbered CM277.) Lecture, four hours. Enforced requisite: course M101A. Course ranges from synapse to society. Provides intensive didactic on current neuroscientific basis for understanding substance abuse and blends that material with relevant topics such as epidemiology, co-occurring disorders, treatment options, prevention and education, with emphasis on communication of course materials to general public. Concurrently scheduled with course C177. Letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Biomechanical Engineering M284, Biomedical Physics M285, Psychiatry M285, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, design and implementation, with emphasis on communication of course materials to general public. Concurrently scheduled with course C177. Letter grading.

293. Culture, Brain, and Development Forum. (1) (Same as Anthropology M293, Applied Linguistics M232, Education M285, and Psychology M248.) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding complex relationships between culture, brain, and development. S/U grading.

M294. Culture, Brain, and Development. (4) (Same as Anthropology M293, Applied Linguistics M232, Education M285, and Psychology M248.) Seminar, three hours. Designed for graduate students. Integration of knowledge across different disciplines to understand interrelations of culture, brain, and development, where development includes both human ontogeny and human phylogeny. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel requirements. Directed and supervised individual research or investigation under guidance of faculty mentor. Culuminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Designed for students requiring special instruction or time to work on dissertation. S/U grading.

599. Dissertation Research for Ph.D. Candidates. (2 to 12) Tutorial, to be arranged. Designed for students requiring special instruction or time to work on dissertation. S/U grading.
Undergraduate Study

The Nursing (Prelicensure) major is a designated capstone major. Students complete a clinically based scholarly project that is approved by a designated faculty member. In completing the capstone course, students should select, evaluate, and apply appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, and social environmental, cultural, and human diversity to the nursing process. They should utilize the nursing process to promote biopsychosocial health and disease prevention and to support the resources of culturally diverse clients and families in community- and/or hospital-based settings.

Through their work, students should demonstrate effective communication and collaboration skills with clients and their families, research participants, other health professionals, colleagues, and policymakers. They should also identify practice-based problems and hypotheses and critique research on issues of importance to nursing and healthcare delivery; participate effectively in relevant professional and community organizations and/or interest groups; demonstrate leadership as a member of the health team to plan, manage, and evaluate care of individuals, families, and communities for culturally diverse populations; and practice their work based on the principles of ethics, social justice, and law.

Nursing B.S. Prelicensure Capstone Major

The focus of the prelicensure program is on the preparation of nurse generalists with special skills in primary, secondary, and tertiary prevention and care within an individual- and population-based context while developing the basics for a strong leadership role. Students learn the art and science of nursing using the latest research findings to guide their practice.

Admission

The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for freshman students and transfer students at the junior level. Freshman applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intersegmental General Education Transfer Curriculum (IGETC). Students must have a grade of C or better in each requisite course and an overall grade-point average of 3.5 or better.

Two recommendation forms and a written statement of purpose are also required.
verse life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multi-cultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated for all applicants. Consideration is also given to students who are socially, economically, and educationally disadvantaged. Completed applications should reflect clearly identified career goals and documentation of potential for nursing practice.

Preparation for the Major

Required: Chemistry and Biochemistry 14A, 14B, 14C, Communication Studies 1 or 10, Life Sciences 2, 3, Mathematics 3A or 31A, Microbiology, Immunology, and Molecular Genetics 10, Nursing 3, 10, 13, 20, 54A, 54B, Psychology 10.

Transfer Students

Transfer applicants to the major in 90 or more units must complete the following introductory courses prior to admission to UCLA: calculus, communications, human anatomy, human physiology, inorganic and organic chemistry, cells, tissues, and organs, microbiology, molecular biology, and introductory or general psychology.

The Major

Required: Biostatistics 100A, Nursing 115, 150A, 150B, 152W, 160, 161, 162A through 162D, 164, 165, 168, 171, 173, 174, and completion of a capstone senior scholarly project (course 169). Transfer students must complete Nursing 10, 20, 50, 54A, and 54B on entry. Students may request to pursue a minor in a related field if the coursework can be completed within the 216-unit limit.

The curriculum at UCLA must be completed with a minimum overall grade-point average of 2.0 (C) or better in all courses taken while a student in the School of Nursing.

Each required nursing course in the major must be completed with a grade of C or better (C– grade is not acceptable).

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa.

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.

Nursing

Lower Division Courses

3. Human Physiology for Healthcare Providers. (5) Lecture, three hours, laboratory, two hours. Basic understanding of human physiological processes, with emphasis on applications to patient evaluation and care. Concepts underlying normal function and how alterations in these normal functions can affect body systems. Knowledge and understanding of these normal human processes is basic to providing quality nursing care. Examination of system variations across lifespan. Letter grading.

10. Introduction to Nursing and Social Justice I. (2) Lecture, two hours. Within context of history of nursing, introduction to practice of nursing, including role of advocacy. Discussion of effective use of self as professional nurse in relation to ethics, cultural competence, and human diversity. Introduction to ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (altruism, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Letter grading.

13. Introduction to Human Anatomy. (5) Lecture, four hours; laboratory, three hours. Structural presentation of human body, including musculoskeletal, nervous, circulatory, respiratory, digestive, renal, and reproductive systems. Laboratory uses virtual cadaver dissection and three-dimensional computer models. Letter grading.

20. Introduction to Nursing and Social Justice II. (2) Lecture, two hours. Advanced discussion on history of nursing, with focus on role of contemporary nursing in relation to ethics and social justice. Analysis of ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (altruism, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Evaluation of social, cultural, legal, and political forces in relation to paternalism for professional nurses working with diverse patient populations in the 21st century. Letter grading.

50. Fundamentals of Epidemiology. (4) Lecture, three hours; laboratory, three hours. Epidemiology focuses on distribution and determinants of health-related states or events in specified populations. Fundamentally, epidemiology seeks to control health problems in communities and institutions. Letter grading.

54A. Pathophysiology I. (3) Lecture, three hours. Preparation: human physiology course taken within past five years. Describes human body systems and provides students with basic understanding of pathophysiological changes that occur within the environment of individuals. Understanding these alterations is basic to providing quality nursing care. Discussion of system variations across lifespan. Letter grading.

54B. Pathophysiology II. (2) Lecture, two hours. Requisite: course 54A. Designed to provide students with understanding of pathophysiological changes that occur within the internal environment of individuals. Presence of dysfunction or disease of selected systems provided as rationale for nursing diagnosis and therapeutic interventions. Letter grading.

Upper Division Courses

105. Human Physiology. (4) Lecture, three hours; discussion, one hour. Designed for nursing students. Lecture and discussion, with emphasis on a correlating approach to anatomy and physiology of human body. P/NP or letter grading.

115. Pharmacology and Therapeutics. (5) Lecture, four hours. Requisites: courses 54A, 54B. Clinical pharmacology for undergraduate nursing students, beginning with emphasis on basic pharmacologic principles. Focus on major drug classes and their mechanism of action, pharmacokinetics, adverse effects, and clinical issues. Letter grading.

150A. Theoretical Foundations of Nursing B.S. Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practical I. (2) Lecture, three hours; laboratory, three hours. Introduction to practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continua. Concepts of communication, collaboration, interprofessional relationships, cultural competence, and nursing process as clinical decision-making strategies essential to practice of professional nursing. Characteristics and roles of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Letter grading.

150B. Theoretical Foundations of Nursing B.S. Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practical II. (4) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Limited to nursing students. Introduction to primary prevention strategies as they pertain to health and wellness across lifespan, using population-based approach to nursing care of diverse populations. Priorities in nutrition and reproductive health, including issues related to contraception and parenting; well-child care, school-age health, and chronic illness prevention strategies for young- and middle-aged adults; elderly who live independently in communities or within institutions. Analysis of influence of overarching political, societal, and governmental systems within U.S. Satisfies Writing II requirement. Letter grading.

C155. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Not same as course C155 prior to Fall 2014. Lecture, four hours; laboratory, two hours. Exploration of theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms local communities and national cultures. Currently scheduled with course C255. 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.

160. Secondary Prevention. (4) (Formerly numbered C160.) Lecture, four hours. Requisite: course 152W. Corequisite: course 161. Screening and early detection of illness to prevent chronic or acutely deteriorating illness. Emphasis on concepts of health and human development and using nursing process, application of nursing role in providing care to individuals and their families to screen, diagnose, and treat illness at earliest possible time to prevent disability or premature mortality. Examination of health problems
of individuals within context of family, social and community systems, and interdisciplinary healthcare systems. Emphasis on differences in developmental stages in response to screening for early and late signs and symptoms of illness in ambulatory and acute care settings, community agencies, rehabilitation units, outpatient specialty clinics and surgical units, and home and community settings. Letter grading.


164. Maternity Nursing. (5) Lecture: three hours; clinical, six hours. Requisites: courses 155, 156, 158, 159, 160, 161, 162. Corequisite: course 173. Nursing assessment and management for selected acute and emergent problems in maternity/newborn patients, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of medical and surgical clients and their families. Introduction to concepts of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidence-based practice, and clinical thinking that maximize patient safety and quality care used during clinical experiences. Letter grading.

162A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) (Formerly numbered 163.) Lecture, three hours; laboratory, one hour. Corequisite: course 150A. Examination of nursing assessment and management of common health problems that adults experience. Theory content in basic assessment, health history, and diagnostic reasoning, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of older adults and in settings of multidimensional team, with focus on application of theory in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for maternity/newborn patients. Intermediate-level assessment and management of symptoms in this population. Letter grading.


166. Advanced Leadership and Role Integration. (5) Lecture, four hours; fieldwork, three hours. Leadership and management theories and models, resource allocation and management, delegation, conflict resolution, legal implications and practice, managed care, evaluation of practice, continuous quality improvement, accreditation process for healthcare systems, and contemporary issues in workplace. Emphasis on role of the RN as a leader and role behaviors, application of research, and leadership-management of care as transition is made from student role to that of practicing professional nurse. Preparation for National Council Licensure Examination (NCLEX) Letter grading.


171. Public Health Nursing. (6) (Formerly numbered 171C.) Lecture, three hours; clinical, nine hours. Requisites: courses 169, or 464 and 465. Theoretical con-
203A. Basic Statistics and Fundamentals for Analysis. (4) Lecture, four hours. Preparation: one upper division statistics course. Introduction to applied statistics, including design, analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management using statistical package programs. Letter grading.

203B. Statistical Approaches for Complex Nursing Phenomena. Four hours. Requisite: course 203A. Use of multiple linear regression, including model validation, discriminant function analysis, principal components analysis, factorial and repeated measures designs, parametric versus nonparametric tests, and concepts of database design, management using statistical package programs. Letter grading.

204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 173 or equivalent upper division basic 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.

205A. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Requisite: course 202. Introduction to qualitative research design in nursing science. Examination of major methodologies that guide qualitative research in relation to various strategies for data collection (interviews, participant observation, focus groups), data analysis, and data interpretation. Stages of qualitative research and ethical considerations related to research with human participants critically examined. Letter grading.

205B. Advanced Qualitative Research Methodology I. (4) Lecture, four hours. Requisites: course 205A, subfield specialization for small group work, and advanced standing in fall of second year. In-depth analysis of symbolic interactionism and pragmatism as foundation for study of grounded theory methodology. Guide to study design development, including sampling plan, interview strategies for data collection, and basic coding. Exploration of self-reflexivity and ethics in relation to entree to field, recruitment of pilot study participants, interviewing, and preliminary data analysis via analytic, theoretic, and reflective memoas based on pilot study data collected as part of course. Letter grading.

205C. Advanced Qualitative Research Methodology II. (4) Lecture, four hours. Requisite: course 205B. Advanced techniques for simultaneous collection and analysis of qualitative data. Expansion on traditional grounded theory analysis procedures by learning and applying software analysis and constructivist grounded theory techniques to analysis of data. Development of conceptual formulation (or grounded theory) of student-selected phenomenon based on pilot study data collected and analyzed as part of course. Letter grading.

206. Nursing Theory Development. (4) Lecture, four hours. Critical examination of theoretical and conceptual thinking in nursing and issues that continue to influence professional nursing knowledge and nursing science. Application of analytical and evaluative skills fundamental to development of theory in nursing and integral to use of theory in nursing research. Letter grading.

207. Quantitative Research Designs of Clinical Phenomena. (4) Lecture, three hours; discussion, one hour. Introduction to wide array of quantitative research designs for testing clinical nursing phenomena. Emphasis on role of research in generating research process and theory, as well as on appropriate use of experimental, quasi-experimental, and correlational designs among diverse populations. Approach is for evaluation of validity of various research designs, with analysis of related threats to validity of each design. Letter grading.


209. Human Diversity in Health and Illness. (4) (Formerly numbered C209.) Lecture, four hours. Human diversity in response to illness that nurses diagnose, treat, and help patients and human health care systems associated with diverse orientations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

210. Nursing Science. (4) (Formerly numbered 210A.) Lecture, four hours. Designed for Ph.D. students. Exploration of phenomena of interest to nurse scholars for potential study in relation to proposed domains of nursing (person, environment, health, and nursing). Investigation of state of science in nursing, with special focus on health service, biologic, vulnerable populations, and biobehavioral nursing research. Integration and synthesis of current and historical scholarly findings of particular phenomena in literature to identify meaningful gaps in knowledge and directions for future research. Letter grading.

211. Theoretical Foundations of Women’s Healthcare during Reproductive Years. (2 to 4) Lecture, three hours; discussion, one hour. Theory and research on assessment and management of women’s health issues during reproductive years. Clinical topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion of women and their families through years in primary care settings. Letter grading.

212. Health-Related Family Theory. (2) Lecture, two hours. Overview of conceptual frameworks related to contemporary family structure and functioning, with particular attention to definitions of family 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 applicability of current knowledge to various problems encountered in care of families. Letter grading.

213. Occupational and Environmental Health Nursing Role, Theory, and Research. (4) (Formerly numbered 213A, 213B.) Lecture, four hours. Introduction to multidisciplinary occupational health environment, including work settings, special worker populations at risk, occupational health nursing scope and standards of practice, and legal and regulatory issues and research that affect occupational and environmental health nursing. Letter grading.


214B. Seminar: Advanced Concepts in Oncology Nursing II. (2) (Formerly numbered 215, 215F) Seminar, two hours. Enforced requisite: course 214A. Designed for adult/gerontology acute care oncology specialists, geriatric oncology specialists. Synthesis, critique, and application of oncology research and evidence-based practice guidelines to support nursing management decisions in diverse populations. Theories and research related to hematopoietic stem cell transplantation, staging, treatment, rehabilitation, oncologic emergen-
and with diverse cultural and socioeconomic groups. Opportunities provided for skill development in use of computer systems, information systems, and development of instructional aids. Letter grading.

M221. Qualitative Research Design and Methodology for Indigenous Communities. (5) (Same as American Indian Studies M202 and Health Policy and Management M202) Seminar, three hours; introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and special considerations in conducting research in American Indian country. Design of research and exploration of feasibility of researching topics. Letter grading.


224. Pharmacology for Advanced Practice Nurses. (5) Lecture, five hours. Requisite: course 231. In preparation for prescriptive authority, focus on major drug categories and mechanisms of action, pharmacokinetics, adverse effects, and clinical uses. Advanced knowledge of and skills in pharmacology for clients/patients with stable acute or chronic conditions. Letter grading.

225A. Advanced Pharmacology I. (3) Lecture, two hours. Course 225A is enforced requisite to 225B. Basic pharmacological principles in addition to clinical knowledge necessary for care of clients/patients with stable acute or chronic conditions. Focus on major drug classes and their mechanisms of action, pharmacokinetics, adverse effects, and clinical uses. Letter grading.

225B. Advanced Pharmacology II. (2) Lecture, two hours. Enforced requisite: course 225A. Knowledge of and skills in pharmacology necessary for care of clients/patients with stable acute or chronic conditions. Letter grading.


227. Ethnogeriatric Nursing. (4) Lecture; three hours. Requisite: course 209. Identification of unique content related to minority aging using Giger and Davidhizar Transcultural Assessment Model. Examination of transカルultural nursing viewed as culturally competent practice that is both client centered and research focused. Exploration of difference between Eurocentric lens and geroethic lens when providing nursing care to ethnically and racially diverse elders. In-depth examination of issues related to conducting research with elders who are racially and ethnically diverse in variety of healthcare settings. Study designs for conducting research in community and long-term care settings, issues surrounding informed consent, planning for mortality and morbidity, data collection techniques for frail elders, including use of assessment tools used in community and long-term care settings, behavioral observations, interviews, and surveys. Letter grading.

228. Research Methods for Aging Populations. (4) Lecture, three hours. Requisites: courses 204, 205A, 207. Corequisite: course 208. In-depth examination of issues related to research with elders who are racially and ethnically diverse in variety of healthcare settings. Study designs for conducting research in community and long-term care settings, issues surrounding informed consent, planning for mortality and morbidity, data collection techniques, including critique and use of data collection instruments used in community and long-term care settings, behavioral observations, interviews, and surveys. Letter grading.

230A-230B. Advanced Pathophysiology I, II (3-2) Lecture, three hours (course 230A) and two hours (course 230B). Requisite: course 105 or equivalent taken in past four years. 230A is requisite to 230B. In-depth examination of pathophysiological processes that underline human illness and disease, with detailed study of these in major body systems. Analysis of manifestations related to processes of cellular and molecular pathology at extracellular, system, and human levels. Letter grading.

231. Pathophysiology for Advanced Practice Nurses. (4) Not same as course 231 prior to Fall Quarter 2010. Lecture/discussion, four hours. In-depth examination of pathophysiological processes that underline human illness and disease, with detailed study of these in major body systems. Analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, system, and human levels with implications for advanced practice nursing. Letter grading.

232. Human Responses to Aging and Chronic Illness. (2) Lecture/discussion, 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.

232F. Human Responses to Aging and Chronic Illness. (4) Lecture/discussion, 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 Illness. (2) Lecture/discussion, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice in gerontological nursing. Letter grading.

233F. Human Responses to Aging and Chronic Illness. (4) Lecture/discussion, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice in gerontological nursing. Letter grading.


239A-239B-239C. Assessment and Management in Adult Healthcare I, II, III. (4-4-4) Lecture, four hours. Letter grading.

239A. (4) Lecture, four hours. Requisites: courses 224, 231. Organ systems approach to acuity and chronicity in syndromes related to respiratory, cardiovascular, dermatologic, and genitourinary systems and selected content in oncology. First of three-course sequence in diagnosis and management of commonly occurring medical and nursing healthcare problems managed by advanced practice nurses and nurse practitioners in variety of clinical settings. Letter grading.

239B. (4) Lecture, four hours. Requisite: course 239A-239B-239C. Second of three-course sequence in assessment, diagnosis, and management of common acute and chronic adult health problems and conditions, including urgent care. Presentation of multiple approaches needed for special populations requiring adult healthcare, including developmental, gender, life-stage perspectives, and functional impairment, such as chronic pain and disability. Demonstration of application and evaluation of evidence-based interventions and clinical guidelines in adult population (adolescence through old age). Letter grading.

239C. (4) Lecture, four hours. Requisite: course 239A-239B-239C. Third of three-course sequence in assessment, diagnosis, and management of common acute and chronic adult health problems and conditions, including urgent care. Presentation of multiple approaches needed for special populations requiring adult healthcare, including developmental, gender, life-stage perspectives, and functional impairment, such as chronic pain and disability. Demonstration of application and evaluation of evidence-based interventions and clinical guidelines in adult population (adolescence through old age). 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 to neuropsychiatric assessment and diagnosis. Exploration of theory and research evidence underlying assessment and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing behavioral nursing approach. Letter grading.

241F. Biobehavioral Foundations of Neuropsychiatric Assessment. (4) Lecture, four hours. Biologic and behavioral theories and research from variety of disciplines, including nursing, for application to neuropsychiatric assessment and diagnosis. Exploration of theory and research evidence underlying assessment and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing behavioral nursing approach. Letter grading.

242. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (2) Lecture, two hours. Concepts and principles of working with individuals and groups using psychotherapeutic nursing practices. Discussion of evolution of these modalities in nursing practice, as well as theory and research evidence underlying...
242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biologic and behavioral concepts drawn from variety of disciplines, including nursing, for application to treatment of neuropsychiatric dysfunction. Exploration of research underlying treatment interaction in cognitive, addictive, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.

245. Theoretical Foundations of Clinical Nurse Specialist Practice. (4) Lecture/discussion, four hours. Theoretical foundations of clinical nurse specialty practice roles in healthcare systems through case-study analysis, with focus on application to clinical practice settings which include culturally diverse populations. Letter grading.

249. Meeting Health-Related Needs in Under-Served Populations. (4) Lecture, four hours. Requisite: course 439A. Examination of systematic barriers within healthcare settings that limit access to those in greatest need of culturally appropriate interventions. Unmet healthcare needs may result in health disparities and compromised quality of life among under-served, low income, uninsured, marginalized populations. Analysis of current evidence-based strategies and interventions designed to address these clinical problems and improve outcomes in culturally competent manner. Presentation of context of healthcare financing, limited access, and public policy. Letter grading.

250. Ethical Issues, Social Justice, and History of Nursing. (5) Lecture, five hours. Interplay of social, cultural, legal, and political forces in the U.S. form background for discussion of ethical issues relating to role of nurses as advocates for social justice in contemporary society today. Analysis situated within context of history of nursing, with emphasis on human rights, civil rights, and patient rights. Discussion of evolution of professional nursing within healthcare arenas in relation to ethical principles, cultural competence, and human diversity. Letter grading.

252. Health Promotion/Risk Reduction Systems: Popular and Governmental Approaches. (4) Lecture, four hours. Lecture, two hours. Introduction to primary prevention strategies as they pertain to health and wellness across lifespan, using population-based approach to nursing care of diverse populations. Priorities in nutrition: reproductive health; includes issues related to contraception and parenting; well-child care, school-age health, and chronic illness prevention strategies for young- and middle-aged adults and elderly who live independently in communities or within institutions. Analysis of influence of overarching political, social, and governmental systems within U.S. Letter grading.

254A. Theoretical Foundations of M.S.N./MECN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum I. (4) Lecture, three hours; laboratory, three hours. Practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continuum, with emphasis on application of knowledge, reasoning, and critical thinking to master's entry clinical nurse (MECN) practice roles in healthcare systems. Introduction to concepts of communication, interdisciplinary collaboration and interprofessional relationships, cultural competence, and nursing process as clinical decision-making strategy essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical settings. Letter grading.

254B. Theoretical Foundations of M.S.N./MECN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three hours. Theory and practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continuum, with emphasis on application of relevant theories to mastery of clinical nurse (MECN) practice roles in healthcare systems. Expansion of concepts of communication, interdisciplinary collaboration and interprofessional relationships, cultural competence, and nursing process as clinical decision-making strategy essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical settings. Letter grading.

255. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Not same as course 250. Lecture, four hours. Requisite: course 252. Corequisite: course 225A. Examination of influence of overarching political, social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, clinical assessment and management impacts delivery of patient-centered and value-driven care, including improved system performance and efficient use of fiscal resources, quality improvement, and patient-population quality practice at organizational level. Corequisites: methods to improve patient-care outcomes such as organizational support, effective teamwork, and quality-improvement concepts in workplace. Emphasis on quality improvement, documentation of outcomes related to policy, and how policies impact clinical practice and healthcare policy issues in relation to delivery of healthcare services by advanced practice nurses in evolving healthcare system. Letter grading.

260. Secondary Prevention. (4) Formerly numbered 196. Lecture, four hours. Requisite: course 225A. Screening and early detection of illness to prevent chronic or acutely deteriorating illness. Expanding on concepts of health and human development and using nursing process, application of nursing role in providing care to individuals and their families to screen, diagnose, and treat illness at earliest possible time to prevent disability or premature mortality. Corequisites: characteristics of individuals within context of family, social and community systems, and interdisciplinary healthcare systems. Emphasis on differences in developmental stages in response to screening for early detection and late signs and symptoms of illness in ambulatory and acute care settings, community agencies, rehabilitation units, outpatient specialty clinics and surgical units, and home and community settings. Letter grading.


264. Professional Issues in Nursing. (3) Lecture, three hours. Requisite: course 415A or 438A or 439A. Assessment of organizational, legal, ethical, and healthcare policy issues associated with delivery of healthcare services by advanced practice nurses in evolving healthcare system. Letter grading.

266. Healthcare Systems/Organizations. (3) Lecture, three hours. Analysis of challenges faced by advanced practice nurses in delivery systems in terms of effects of policy, economic factors, structure and financing of organizations, characteristics of patients/populations, and services provided, all of which shape role and practice of clinical nurse leaders. Letter grading.

267. Healthcare Policy. (3) Lecture, three hours. Requisite: course 266. Analysis of healthcare policies and how policies impact clinical practice and healthcare delivery. Discussion of understanding of increasing levels of public, governmental, and third-party participation in and scrutiny of shape and direction of healthcare system. Current mandated assembled bills and their effect on nursing. Concepts associated with escalating healthcare costs and cost containment efforts instituted by private and government sectors, as well as by individual healthcare institutions. Letter grading.

268. Systems (Hospital Unit): Individual Level. (4) Lecture, four hours. Requisite: course 267. Discussion of use of systems theory approach in providing patient-centered and value-added care. Functioning within systems, individual healthcare practitioners learn to use critical thinking and decision making to coordinate and deliver quality and cost-effective patient care. Development of understanding of different modes of organizing nursing care within unit environment, managing care within multidisciplinary team framework, and promoting effective teamwork that enhances patient outcomes, improves staff vitality, and reduces costs. Emphasis on use of systems theory, problem solving and decision making, nursing care delivery models, delegation, and team strategies. Letter grading.

269. Quality Improvement and Population-Based Quality of Practice. (4) Lecture, four hours. Requisite: course 268. Principal elements related to quality improvement theories and ways in which quality management impacts delivery of and value-driven care, including improved system performance and efficient use of fiscal resources, quality improvement, patient-population quality practice at organizational level. Corequisite: methods to improve patient-care outcomes such as organizational support, effective teamwork, and quality-improvement concepts in workplace. Emphasis on quality management, documentation of outcomes related to policy, and how policies impact clinical practice and healthcare policy issues in relation to delivery of healthcare services by advanced practice nurses in evolving healthcare 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, illness. Begins with written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

288. Variable Topics in Nursing. (4) Lecture, three hours; discussion, three hours. Requisite: consent of instructor; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. S/U or letter grading.

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Medicine, Nursing, and Public Health and Departments of Education and Psychology, as well as by relevant publications.

295A. Nursing Science Seminar. (1) Seminar, one hour. Introduction to nursing research methods, activities, and programs within specialty strands at UCLA School of Nursing: biobehavioral sciences, biologic sciences, community health, prevention, and health services. Exemplar work of UCLA nurse scholars highlighted. Overview of nursing research at UCLA and potential research opportunities for doctoral study. S/U grading.

295B-295C. Nursing Science Seminars. (2-2) Seminar, two hours. Requisites: course 295A. Introduction to grant writing, with focus on preparing applications for National Student Research Award. Discussion of requirements and identification of means to help students to write and to apply for extramural funds. Letter grading.

299A. Nursing Research Seminar. (2) Seminar, two hours. Seminar to assist students who are beginning careers in scientific research to understand issues of responsibility for research and protection of research subjects. S/U grading.

299B-299C. Nursing Research/Laboratory Experiences. (4-4) Seminar/discussion, one hour; research/laboratory, three hours. Requisites: courses 200, 206. 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. (2) Seminar, two hours. Discussion, one to two hours. Requisites: courses 206, 207, 208, 220. Seminar to assist students to prepare for careers in academic settings, with focus on teaching. S/U grading.

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

414A-414B. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners. (6-8) Clinic practicum, 16 hours (course 414A) and 22 hours (course 414B). Requisites: courses 238A, 238B, 238C, 238D, 438A, 438B. Emphasis on health promotion, maintenance, and intervention in common illness-associated symptoms. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of cancer, cultural awareness, and practice in interdisciplinary teams. S/U grading.


418A-418B-418C. Nursing Administration Practicum. (3 or 4 each) Clinic practicum, eight or 11 hours; clinical conference, one hour. Letter grading. Requisites: courses 219A, 219B. Synthesis, evaluation, and analysis of management, organizational, and theoretical content in practice setting, with emphasis on content presented in course 218A, including organizational structure, processes, and outcomes. Requisites: courses 218A, 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. Requisites: courses 218B, 418B. Experience in organizational setting for synthesizing content from course 218C, including processes of project management, organizational communication, governance and support, and change, diverse relationships within organization, risk management, liability, and ethics of administration decision making. Requisite: course 218D. Requisites: courses 218D, 418D. Clinical practicum, seminar, and other learning activities to demonstrate application and evaluation of evidence-based research and clinical guidelines in promotion of pediatric wellness. Letter grading.

429A. Family Nurse Practitioner Practicum I. (4) Clinic practicum, 12 hours. Requisites: courses 200, 440. First of five clinical practices designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. S/U grading.

429B. Family Nurse Practitioner Practicum II. (4) Clinic practicum, 12 hours. Requisite: course 429A. Second of five clinical practices designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework for care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Letter grading.


439A-439B-439C. Pediatric Nurse Practitioner Clinical Practicum I. (6) Clinic practicum, 18 hours. Corequisite: course 238C. Emphasis on health promotion, maintenance, and intervention in common illness-associated symptoms. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs, marketing, media, and political action and healthcare policy. Letter grading. Requisite for course 439C: course 439B; for 439D: course 439A. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs, marketing, media, and political action and healthcare policy. Letter grading.


439C. Pediatric Nurse Practitioner Clinical Practicum III. (6) Clinic practicum, 18 hours. Corequisite: course 238C. Emphasis on health promotion, maintenance, and intervention in common illness-associated symptoms. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs, marketing, media, and political action and healthcare policy. Letter grading.

on application and integration of theory, research, and clinical knowledge in advanced practice role. Letter grading.

439E. Adult/Gerontology Primary Care Nurse Practitioner Practicum V. (9) Clinical practicum, 27 hours. Enforced requisites: courses 439A through 439D. Designed to prepare adult/gerontology primary care nurse practitioners with knowledge and skills, competencies necessary to assume role of primary healthcare providers for young adults, adults, and older adults. Use of patient-centered framework of care for those expe. Multidimensional systems, common acute and chronic illness, disability, and development. Preparations in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and interpret robust data from individualized assessments, with emphasis on context of community, cultural awareness, and practice in interdisciplinary teams. Letter grading.


441. Neuropsychiatric Subspecialty Clinical Seminar. (1 to 2) Clinical seminar, one hour; self-study, two hours. Requisites: courses 241F, 242F. Designed for advanced practice nurses in any nurse practitioner specialty. Neuropsychiatric assessment, treatment, and case presentations in selected populations with addictive, affective, and cognitive dysfunctions in relation to neuropsychology and pathology and to family, social, and cultural structures. S/U grading.


450. Advanced Practice Nursing: Clinical Elective Independent Study. (2 to 8) Clinical practicum, eight hours. Clinical elective designed to enhance skills and competencies in student-selected advanced practice specialty or related practice dimension, with emphasis on application and integration of theory and evidence-based practice knowledge. S/U grading.


462. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Enforced requisites: course 461; Pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of maternity-newborn patients, with emphasis on social, cultural, and developmental influences and integration of basic knowledge of pathophysiology, diagnosis, pharmacology, therapeutic interventions, and communication concepts as applied to care of childbearing families. Application of theory, nursing process, evidence-based practice, and problem solving in clinical practice. Letter grading.

463. Pediatric Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: course 462. Nursing assessment and management for selected acute and emergent problems in infants, children, and adolescents, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, therapeutic interventions, and communication concepts as applied to care of infants, children, and adolescents. Assessment, health maintenance, and management of symptoms in infants and children. Letter grading.

465A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) (Formerly numbered 463.) Lecture, three hours; clinical, three hours. Corequisite: course 245B. Examination of nursing assessment and management of common health problems of adults. Theoretical content in basic assessment, health history, and diagnostic reasoning for selected health problems, with emphasis on social and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of medical and surgical patients and their families across adult lifespan. Introductions to concepts of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing assessment, problem-solving strategies, and critical thinking. Supervised practicum experience within setting of multidimensional team in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for infants, children, and adolescents. Assessment, health maintenance, and management of symptoms in infants and children. Letter grading.

465B. Tertiary Prevention and Care of Medical-Surgical Geriatric Patients and Families. (5) Lecture, three hours; clinical, six hours. Requisite: course 465A. Examination of nursing assessment and management of acute and chronic health problems of older adults. Theory content in assessment, health history, and diagnostic reasoning on older adults, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, stress, nursing diagnosis, evidence-based practice, and adult development theory, therapeutic interventions, and communication concepts as applied to care of older medical and surgical patients and their families. Concept of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidence-based practice, and clinical thinking that maximize patient safety and quality care employed during clinical experiences. Diagnosis and management of healthcare problems managed by master's-level clinical nurses in acute care settings. Letter grading.

465C. Tertiary Prevention and Control of Medical-Surgical Patients and Families. (9) (Formerly numbered 465.) Lecture, five hours; clinical, 12 hours. Requisites: courses 465A, 465B. Pathophysiological and psychosocial concepts as applied to care of selected acute and emergent problems of adult patients with complex illness, including multifaceted assessment, health history, and diagnostic reasoning skills and emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, therapeutic interventions, and communication concepts as applied to care of medical and surgical patients. Supervised practicum experience within settings of multidimensional team, with focus on clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Intermediate-level assessment, health maintenance, and management of symptoms across lifespan. Letter grading.


495. Nursing Education Practicum. (2) Seminar, six hours. Supervised student teaching internship in preparation for academic roles. In-depth opportunity to gain skills in role of nurse educator within university setting, including application of instructional strategies and evaluation methods. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA assistant dean 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 M.S.N. degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

597. Individual Study for Comprehensive Examination. (2 to 4) Tutorial, to be arranged. Opportunity for individual graduate nursing students to prepare for comprehensive examination. May be repeated once for credit, but only 4 units may be applied toward graduate degree requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (2 to 12) 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
David Geffen School of Medicine
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http://obgyn.ucla.edu

Chairs
Gautam A. Chaudhuri, M.D., Ph.D., Executive Chair
Andrea J. Rapkin, M.D., Executive Vice Chair
Brian J. Koos, M.D., D.Phil., Vice Chair, Academic Affairs
Robin P. Farias-Eisner, M.D., Ph.D., Vice Chair, Administration
Michael T. Johnson, M.D., Ph.D., Vice Chair, Clinical Affairs
Sarah J. Kilpatrick, M.D., Ph.D., Vice Chair, Cedars-Sinai

Obstetrics and Gynecology

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 post-menopausal period; antepartum, intrapartum, and postpartum obstetric care; and recognition and management of various gynecologic disorders. Third-year students work in ambulatory clinics and on inpatient services during a six-week core clerkship. Greater depth of experience is provided by elective clerkships during the fourth year that emphasize subspecialties such as maternal/fetal medicine, reproductive endocrinology and infertility, gynecologic oncology, and reproductive health.

For further details on the Department of Obstetrics and Gynecology, see http://obgyn.ucla.edu.

OPHTHALMOLOGY
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2-142 Jules Stein Eye Institute
Box 957000
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Chairs
Barry M. Jondlin, M.D. (Bradley R. Straatsma, M.D., Emeritus Professor of Ophthalmology), Chair
Anne L. Coleman, M.D., Ph.D. (Frances and Ray Stark Professor of Ophthalmology), Vice Chair
Sherwin J. Isenberg, M.D. (Laraine and David Gerber Professor of Ophthalmology), Vice Chair, Harbor-UCLA

Scope and Objectives
Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology 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/

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

ORAL BIOLOGY
School of Dentistry
UCLA
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Scope and Objectives
Oral biology is the area of knowledge that deals with the development, structure, and function of the oral tissues and their interrelationships with other organ systems in normal and disease states. It is a multidisciplinary field that includes cell biology, morphology, molecular biology, biochemistry, neuroscience, immunology, microbiology, and virology. The objective of the graduate program is to provide students with a sound foundation in these areas in order to pursue an academic or research career.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Section of Oral Biology in the School of Dentistry offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Oral
Biological Sciences. A combined D.D.S./Oral Biology M.S or Ph.D. or advanced certificate training/Oral Biology M.S. or Ph.D. is also offered.

Oral Biology

Graduate Courses

201A, 201C. Advanced Oral Biology. (3-3) Lecture, three hours. S/U or letter grading.

201A. Ontogeny. (3) Lecture, three hours. Evolutionary perspective of cellular development from simple multicellular stages that were formed during first billion years of Earth to development of cells, tissues, and organs of vertebrates and vertebrates. Development of vertebrate feeding apparatus from comparative anatomical and physiological point of view, followed by embryogenesis of orofacial and dental structures of humans. S/U or letter grading.

201C. Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of oral cavity. Topics include microbio logically mediated demineralization of hard tissues, soft tissue infections, cariogenicity, colonization of mucosal substrates by opportunistic pathogens. S/U or letter grading.


205A. Mechanisms and Relief of Pain. (2) (Same as Neuroscience M223.) Lecture, two hours. Advanced treatment of neuroanatomical, neurophysiological, and biochemical bases of pain perception. Topics include classical pain theories, pain receptors and pathways, endogenous mechanisms of pain modulation, and pharmacological basis for treatment of pain disorders. Letter grading.

205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for graduate oral biology students. Integration of didactic lectures in descriptive and inferential statistics and in research design (emphasis on experimental design), presentations of statistical software, and open discussion of specific needs of oral biology students when they design their research. Letter grading.


205C. Advanced Seminar: Comparative Effectiveness of Evidence-Based Research. (2) Seminar, one hour, discussion, one hour. Requires: courses 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared mechanism in comparative effectiveness and evidence-based research. Specialized topics include level and quality of evidence assessments, acceptable sampling analysis, meta-analysis and meta-regression, and Bayesian-derived decision making following utility versus logic model. Students work on examples of their choice and interest in oral biology, medicine, and orthodontics. Letter grading.

206. Current Topics in Oral Immunology. (2) Lecture, two hours. Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunology, carries immunology, endodontic immunology, etc. Letter grading.

208. Genomics and Proteomics in Oral Biology Research. (2) Lecture, one hour; discussion, one hour. Preparation: fundamentals and technical aspects of genomics and proteomics and analysis of data derived therefrom. Discussion of implications and applications of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.

209. Scientific Ethics. (2) 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 Temporomandibular Joint. (2) Lecture, two hours. Anatomy, histology, physiology, and biomechanics of temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging. S/U or letter grading.

212. Proseminar: Oral Biology Research. (2) Seminar, one hour; discussion, one hour. Introductory course for graduate M.S. students. Guest seminars on topics of research in oral biology (pain pathways, immunology, bone biology, microbiology, cancer, and salivary genomics), followed by discussions led by course chair. Letter grading.

214. Current Research in Osteoimmunology. (2) Seminar, one hour; discussion, one hour. Exploration of oral bone biology and immunology and how both systems talk to each other. Topics include immune modulation of bone metabolism, osteoblastic niche for hematopoietic progenitors, adult bone marrow stem cell changes, and osteoimmunology in at-risk populations. Letter grading.

215A. Fundamentals of Immunology. (2) Lecture, two hours. Basic cellular and molecular mechanisms involved in regulatory and immune effectors, with emphasis on immunopathology involved in autoimmune, immune, and immunodeficiency syndromes. Letter grading.

215B. Current Advancements in Immunology. (2) Seminar, one hour; discussion, one hour. Overview of rapidly changing discoveries in very important field of immunology. Directed and student-led discussions of current cutting-edge research developments in immunology. Letter grading.

226. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics that aid their understanding and analysis of course content that has application to their specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Preparation: important aspects of craniofacial development and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of orofacial apparatus that are of significance to clinical dental specialists. S/U or letter grading.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry. General principles of drug action and drug effects on autonomic and central nervous systems. S/U or letter grading.

229A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. Examination of sociocultural, biological, and linguistic anthropology to understand factors that influence health and well-being, experience and distribution of illness, prevention and treatment of sickness, healing processes, social relations of therapy management, and cultural importance of traditional medicine and health systems. Theory, perspectives, and methods from clinical medicine, public health, epidemiology, demography, and social sciences. Letter grading.

229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. What factors determine health, illness, and disease in global context, including political ecology of infectious diseases, child health issues, women’s health and reproductive health, global trade in illegal and illegal drugs, demography and health transition, structural adjustment, problems associated with globalization of pharmaceutical industry; antibiotic resistance, and globalization and health equity. Letter grading.

234. Seminar: Developmental Neuroendocrinimmunology. (2) Formerly numbered M234.) Seminar, two hours. Hands-on for oral biology and medicine students. Psychoanalytical and physiological processes intertwine, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from developmental perspective. S/U or letter grading.

M256. Interdisciplinary Response to Infectious Disease Emergencies: Dentistry Perspective. (4) (Same as Community Health Sciences M256, Medicine M256, and Nursing M256.) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Community Health Sciences, Medicine, Nursing, and Public Health during weeks two through five. Letter grading.


273. Research in Clinical Immunology and Lymphology. (2) Lecture, one hour; discussion, one hour. Forum for discussion of cutting-edge topics in immunology and lymphology and lymphoid tissue perspective. Emphasis on immune surveillance and lymphatic drainage of oral pathologies associated with AIDS and other diseases. Letter grading.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecular and cell biology, with emphasis on applications in dental research. Letter grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.


Orthopaedic Surgery

David Geffen School of Medicine

UCLA

76-143 Center for the Health Sciences

Box 956902

Los Angeles, CA 90095-6902

(310) 825-6557

fax: (310) 825-1311

http://orth.ucla.edu/

Chairs

Jeffrey Eckardt, M.D., Chair

John S. Adams, M.D., Vice Chair of Research

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

ORTHOPAEDIC SURGERY
and supervised clinical experience, students acquire the clinical skills of history taking and physical examination of the musculoskeletal system. Diagnosis and orthopaedic management of bone and soft tissue trauma, skeletal development defects, tumor, spinal disorders, hand and foot disorders, and arthritis are primary objectives. Third-year students work in ambulatory clinics and on inpatient services during their core surgical clerkship. Fourth-year electives provide the opportunity for in-depth experience on rotations at the Reagan UCLA Medical Center and affiliated institutions and emphasize subspecialties such as joint replacement, sports medicine, orthopaedic oncology, metabolic bone disorders, hand and foot surgery, spinal surgery, and pediatric orthopaedics.

For further details on the Department of Orthopaedic Surgery and a listing of the courses offered, contact the Education Office at (310) 206-5587 or see http://ortho.ucla.edu.

Orthopaedic Surgery
Upper Division Course

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

PATHOLOGY AND LABORATORY MEDICINE

David Geffen School of Medicine

UCLA
1P-171 Center for the Health Sciences
Box 951732
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http://pathology.ucla.edu

Jonathan Braun, M.D., Ph.D., Chair

Professors

Linda G. Baum, M.D., Ph.D.
Scott W. Binder, M.D. (Pritzker Family Endowed Term Professor of Pathology)
Jonathan Braun, M.D., Ph.D.
Anthony W. Butch, Ph.D.
Alistair J. Cochran, M.D.
Galen R. Cortina, M.D., Ph.D.
Gay M. Crooks, M.D.
Kenneth A. Dorshkind, Ph.D.
Thomas A. Drake, M.D., in Residence
Steven M. Dubinett, M.D.
Rita B. Efros, Ph.D., in Residence
Michael C. Fishbein, M.D., in Residence (Frances and Albert Planksy Professor of Anatomy)
Tomas Ganz, M.D., Ph.D.
Richard A. Gatti, M.D., in Residence (Rebecca Smith Endowed Professor of A-T Research)
Ben J. Glasgow, M.D. (Wasserman Professor of Ophthalmology)
Wayne W. Grody, M.D., Ph.D.
Oliver Hankinson, Ph.D.
Sharon L. Hirschowitz, M.D.
Jiaodi Huang, M.D., Ph.D., in Residence
Jerzy W. Kupiec-Weglinski, M.D., Ph.D., in Residence (Joan S. and Raphael N. Goldwyn Professor of Immunobiology and Transplantation)
Charles R. Lassman, M.D., Ph.D.
Benhur Lee, M.D.
Stephen Lee, M.D.
Kimmie Li, Ph.D.
Paul Mischel, M.D. (Lya and Harrison Latta Endowed Professor of Pathology)
Scott D. Nelson, M.D.
Jian Yu Rao, M.D.
Nagesh P. Rao, Ph.D.
Elaine F. Reed, Ph.D., in Residence
Jonathan W. Said, M.D.
Robert H. Schiestl, Ph.D.
Michael A. Teitell, M.D., Ph.D.
James G. Tidball, Ph.D.
Peter J. Tontonoz, M.D., Ph.D.
Harry V. Vinters, M.D.
Hanlin L. Wang, M.D., Ph.D.
Anna Wu Work, Ph.D.

Professors Emeriti

Judith A. Berliner, Ph.D.
John Campbell, Ph.D.
Pasquale A. Cancilla, M.D.
Michael J. Cecka, Ph.D.
Carmine D. Clemente, Ph.D.
Walter F. Coulson, M.D.
Joseph M. Mirra, M.D.
Faramarz Naem, M.D.
Roberta K. Nieberg, M.D.
Donald E. Paglia, M.D.
Lawrence D. Petz, M.D.
David D. Porter, M.D.
Dennis Rodgrigon, Ph.D.
George S. Smith, M.D.
Nora Sun, M.D.
Mitsu T. Takasugi, Ph.D.
Julien L. Van Lancker, M.D.
M. Anthony Verity, M.D.
Elizabeth A. Wagar, M.D.

Associate Professors

Sophia K. Apple, M.D.
Nicole A. Dawson, M.D.
Sarah M. Dry, M.D.
Kathleen A. Kelly, Ph.D., in Residence
Michael A. Lewinowski, Ph.D.
Xin Liu, M.D., Ph.D.
Rajalingham Raja, Ph.D.
Sophie X. Song, M.D.
William H. Yong, M.D.
Allysa F. Ziman, M.D.

Assistant Professors

Tamar Baruch-Oren, M.D.
Steven J. Bensinger, V.M.D., Ph.D.
Kingshuk Das, M.D.
David W. Dawson, M.D., Ph.D., in Residence
Joshua L. Deignan, Ph.D.
Samuel Wheeler French, Jr., M.D., Ph.D., in Residence
Steven D. Hart, M.D.
Romney Humphries, Ph.D.
Nigar M. Khanlou, M.D., in Residence
Chi K. Lai, M.D.
David Lu, M.D.
Qun Lu, M.D.
Kimberly A. Mislick, M.D.
Neda A. Moatamed, M.D.
Bita V. Naini, M.D.
Miguel F. Palma-Diaz, M.D.
Sheeja T. Pullarkat, M.D.
Fabiola Quintero-Rivera, M.D.
Dinesh S. Rao, M.D., Ph.D., in Residence
G. Peter Sarantopoulos, M.D.
Stephen P. Schettler, Ph.D.
Chandra N. Smitard, M.D.
Peggy S. Sullivan, M.D.
Carlos A. Tirado, Ph.D.
William D. Wallace, M.D.
Aparche B. Yang, M.D.
Shan Yuan, M.D.
Qui heng Zhang, Ph.D.

Adjunct Professors

Sunita M. Bhuta, M.D.
David S. Chia, Ph.D.
David W. Gjertson, Ph.D.
Shaleen Metten, Ph.D.
Nora Rozengurt, Ph.D.
M. Elena Stark, M.D., Ph.D.
Robert B. Trelease, Ph.D.

Adjunct Associate Professors

Lee A. Goodplick, Ph.D.
Joseph M. Miller, Ph.D.
David B. Seligson, M.D.
Bo Wei, M.D., Ph.D.

Adjunct Assistant Professors

Hailiang Hu, Ph.D.
Yin Sun, Ph.D.
Madhuri Wadhera, Ph.D.
Johanathan J. Wilco, Ph.D.

Visiting Professor
Raymond L. Barnhill, M.D.

Visiting Associate Professor
Claire Lugassy, M.D.

Visiting Assistant Professor
Sibel Kantarcı, Ph.D.

Scope and Objectives

Pathology is the branch of medicine concerned with the causes and development of disease. The goal of the cellular and molecular pathology (CMP) graduate program is to provide students with the knowledge to integrate findings at the molecular, cellular, and systemic levels to understand the causes and progression of disease. Coursework is designed so that students gain an in-depth knowledge of cell and molecular biology, genetics, and disease mechanisms. Didactic instruction is complemented by participation in seminars and training in the design and execution of original laboratory research. As a result, graduates obtain the expertise to translate and answer questions defined in the clinical area to the laboratory bench and vice versa. See http://www.pathnet.medsch.ucla.edu/edusc/login/home.php for more information.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa /library/pgmrqintro.htm. 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

110. Introduction to Cytogenetics. (4) Lecture, one hour; discussion, two hours. Limited to upper division biology students. Cytogenetics is branch of genetics concerned with study of structure and function of cells, especially chromosomes. Coverage of broad
range of topics on both clinical aspects and research in cytogenetics. Studies provide important paradigms to understand inherited diseases, mechanisms of chromosome segregation, diseases, and problems created for numerical and structural abnormalities of human chromosomes as well as study of new techniques in molecular cytogenetics, including fluorescence in situ hybridization (FISH), comparative genomic hybridization (CGH), and array CGH to diagnose constitutional syndromes and cancer. Journal club consists of two to three articles per meeting (one clinical and one basic/translational). Presentation of at least one journal article and leading of one group discussion required. Letter grading.

199. Directed Research in Pathology. (2 to 4) Tutorial, 10 hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Letter grading. Individual contract required. P/NP or letter grading.

Graduate Courses

207. Gross and Developmental Anatomy for Gradu- ate Students. (12) Lecture/laboratory, three four-hour sessions (16-week semester). Gross anatomy, embryology, and radiological anatomy of human body as taught by lectures, demonstrations, and dissec-
tions. Trunk and extremities; head and neck. Letter grading.

M215. Interdepartmental Course: Tropical Medi-
cine. (2) (Same as Medicine M215 and Pediatrics M215.) Lecture, two and one-half hours. Preparation: basic courses in microbiology and parasitology of in-
fected diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of the world. Major empha-

M229. Molecular Mechanisms of Host/Pathogen Interaction. (4) (Same as Microbiology M229.) Lect-
ure, two hours; discussion, two hours. Requisites: Bi-
ological Chemistry 254A through 254D. Molecular mechanisms of microbial interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include pathogenesis of common viruses, bact-
eria, fungi, and parasites, basis of toxin-mediated cel-
lular damage, and immune suppression of microbial tissue damage. Letter grading.

M237. Molecular and Cellular Basis of Disease. (4) (Same as Biological Chemistry M237.) Lecture, two hours; laboratory, two hours. Preparation: one course each in molecular biology, cell biology, and bi-
cology of chemistry. Discussion of key issues in dis-
 ease mechanisms, with emphasis on experiments leading to understanding of these mechanisms. Identi-
tification of important questions still remaining un-
swerved. Letter grading.

238. Histology and Pathology for Graduate Stu-
dents. (2) Laboratory, two hours. Designed for UCLA ACCESS or Cellular and Molecular Pathology Ph.D. students. Basic introductory knowledge of normal tis-
ue, pathological processes, and animal models as ob-
served by light microscopy. Letter grading.

240. Transplantation Immunology from Benchside to Bedside. (4) Lecture, three hours; laboratory, one hour. Preparation: knowledge of basic immunology. Limited to graduate students. New developments in organ transplantation, updates on basic science of immune mechanisms, integration of basic science principles with clinical practice. Letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Human Genetics M255.) Lecture, three hours. Basic molecular genetic and cytogenetic tech-
iques of gene mapping. Selected regions of human genome are detailed, part of large gene families and clusters of genes that have remained linked from mouse to human. Discussion of localiza-
tions of disease genes. S/U or letter grading.

256. Seminar: Viral Oncology. (2) Seminar, two hours. Advanced research seminar designed to con-
sider current developments in field. Selection of cur-
rent subjects and publications dealing with tumor vi-
ruses, oncogenesis, development, and cellular regu-
lation. S/U or letter grading.

M257. Introduction to Toxicology. (4) (Same as Pharmacology M257.) Lecture, four hours. Bio-
chemical and system toxicology, basic mechanisms of toxicity, and interaction of toxic agents with specific organ systems.

M258. Pathologic Changes in Toxicology. (4) (Same as Pharmacology M258.) Lecture, four hours. Designated to give students experience in learning normal histology of tissues which are major targets of toxic and the range of pathologic changes that occur in these tissues (liv-
er, bladder, lung, kidney, nervous system, and vascu-
lar system).

M259. Molecular Nutrition and Genetics Epidemi-
ology of Obesity and Diabetes. (4) (Same as Epi-
demiology M259.) Lecture, four hours. Preparation: basic biochemistry, epidemiology, molecular biology, physiology, and statistics courses. Survey of entire landscape of nutritional, biochemical, and genetic as-
psects of obesity and diabetes and their microvascular and macrovascular implications. Topics of desir-
tive and analytical epidemiology of these seemingly distinct yet clearly clustered disorders, including so-
called metabolic syndrome. Study of distributions and determinants of these diseases in Western popula-
lations to appreciate how and why these epidemics occurred. Through case studies students learn pro-
cess of generating etiologic hypotheses that can be tested using modern molecular epidemiologic meth-
ods. Techniques and principles of molecular genetics relevant to epidemiologic studies. Analysis of real data sets that include both genotype and phenotype information, with emphasis on examination of various gene/environment interactions. S/U or letter grading.

260. Immunopathology. (4) Lecture, two hours; dis-
cussion, one hour; laboratory, one hour. Requisite: Microbiology 261. Advanced information for graduate and advanced undergraduate students regarding im-
mune system anatomy, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmunity. Letter grading.

270. Basic and Clinical Aspects of Developmental Hematology. (4) Lecture, two hours. Graduate- and postgraduate-level course that covers broad range of topics in both basic and clinical aspects of develop-
mental hematology. Pediatric hematologic disorders provide important paradigm to study other develop-
mental systems. Subjects include hematopoiesis, ba-
sic stem cell biology, angiogenesis, alternative mod-
els to study developmental hematology (zebrafish and Drosophila), basic physiology of normal and abnormal red cells, platelets, and white cells, leukemogenesis and novel therapeutics to treat leukemia, basic and clinical stem cell transplantation, state-of-the-art methods in developmental hematology (genomics, proteomics, and gene therapy, design of clinical trials, and biomathematical modeling and statistics in devel-
mental hematopoiesis). Letter grading.

M272. Stem Cell Biology and Regenerative Medi-
cine. (4) (Same as Molecular, Cell, and Developmen-
tal Biology M272.) Lecture, two hours; discussion, two hours. Designated to give students presentation of current knowledge of embryonic and adult stem cells and factors that regulate their growth and devel-
oment. Major emphasis on how advances in cell and molecular biology and bioengineering can be ap-
plied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell re-
search. S/U or letter grading.

280. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes. (4) (4) Lecture, two hours. Limited to graduate students. Coverage of broad range of topics on both clinical aspects and mo-
olecular pathogenesis of bone marrow failure syn-
dromes. Studies provide important paradigms to un-
derstand fundamental mechanisms of human disease in addition to normal and abnor mal blood cell develop-
ment. Topics include basic biology and clinical fea-
tures of aplastic anemia, myelodysplastic syndromes, Diamond Blackfan Anemia, Schwachman Diamond Syndrome, Fanconi Anemia, Dyskeratosis Congenita, Paroxysmal Nocturnal Hemoglobinuria, flow cytome-
try, and research approaches to study bone marrow failure syndromes. Journal club sessions include dis-
cussion of two journal articles per meeting — one clinical and one basic/translational. Students present at least one journal article and lead group discussion. S/U or letter grading.

294. Basic Concepts in Oncology. (4) Lecture, three hours. Fundamentals, and mo-
olecular process involved in genesis and growth of can-
cer cells and diagnosis, characterization, and treat-
ment of cancer. Letter grading.

296. Research Topics in Pathology: (2 to 4) Re-
search group meeting, one to two hours. Limited to departmental graduate students. Advanced study and analysis of current topics in pathology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

298A-298D. Current Research in Disease Mecha-
nisms. (2 each) Lecture, 90 minutes. Preparation: one course each in molecular biology, cell biology, and biological chemistry. Designed for graduate ex-
perim ental pathology students. Current research in disease mechanisms, with strong emphasis on exper-
imental approach in pathology. Topics include genetic and metabolic disorders, thyroid disease, immuno-
ology, atherosclerosis, infectious diseases, and Alzheim-
er’s disease. S/U or letter grading.

596. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Individual research with members of the staff or of other departments, the lat-
ter for purpose of supplementing programs available in department. S/U grading.


599. Preparation of Ph.D. Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: completion of qualifying examinations and majority of Ph.D. re-
Hospital UCLA and Olive View-UCLA, Harbor-UCLA, Cedars-Sinai, and Santa Monica UCLA Medical Centers. For second-year medical students, the fundamentals of pediatric history and physical examination are taught at all sites as part of the pediatric clinical skills course.

For third-year medical students, the required six-week clinical clerkship in pediatrics is offered at the following five sites: a combined experience at Mattel/Olive View-UCLA and Santa Monica UCLA, Cedars-Sinai Medical Center, Harbor-UCLA, Kaiser-Sunset, and a combined experience in Riverside and Redlands. For fourth-year medical students, in-depth subspecialty electives offered by the Department of Pediatrics are listed in the School of Medicine Handbook of Clinical Courses, as are advanced clinical clerkships.

For further details on the Department of Pediatrics and a listing of the courses offered, see http://www.pediatrics.medsch.ucla.edu.

**Pediatrics**

**Upper Division Course**

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

**Graduate Course**

M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Medicine M215 and Pathology M215.) Lecture, two and one-half hours. Preparation: basic courses in microbiology and parasitology of infectious diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of 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.

Brian P. Copenhaver, Ph.D. (Steven F. and Christine L. Udvar-Hazy Professor) Barbara Herman, Ph.D. (Gloria and Paul Griffin Professor of Philosophy) Pamela Hieronymi, Ph.D. David B. Kaplan, Ph.D. (Hans Reichenbach Professor of Scientific Philosophy) Gavin Lawrence, D.Phil. Donald A. Martin, Ph.D. Calvin G. Normore, Ph.D. Terence D. Parsons, Ph.D. Seana Shiffrin, D.Phil., J.D.

**Professors Emeriti**

Maryln McCord Adams, Ph.D. Robert Merrinew Adams, Ph.D. Keith S. Donnellan, Ph.D. Herbert Morris, Ph.D.

**Associate Professors**

Mark D. Greenberg, Ph.D. Sheldon R. Smith, Ph.D.

**Assistant Professors**

Samuel J. Cummings, Ph.D. Katrina Elliott, Ph.D. Gabriel J. Greenberg, Ph.D. Alexander J. Julius, Ph.D.

**Lecturer**

Andrew Hsu, Ph.D.

### Scope and Objectives

Philosopher, translated from the Greek, means lover of wisdom. The term has come to mean someone who seeks knowledge, enlightenment, and truth. The Department of Philosophy undergraduate program is not directed at career objectives (although it is traditionally good preparation for law, theology, and graduate work in philosophy). Philosophy is taught to undergraduate students primarily as a contribution to their liberal education. All of the lower and most of the upper division course offerings should be of interest and useful to students who are reflective about their beliefs or who wish to become so. It also provides the occasion to ponder the foundations of almost any other subject to which they are exposed — whether history, religion, government, law, or science.

The principal goal of the graduate program is to produce philosophers of high quality, thinkers informed by the great historical traditions of Western philosophers who can apply the methods of philosophical analysis to a broad range of current philosophical problems. Since all its graduate students hope to teach at the college or university level, the department is also committed to training clear, able, and stimulating teachers.

The department offers programs leading to the Bachelor of Arts and Ph.D. degrees.

**Undergraduate Study**

**Philosophy B.A.**

**Preparation for the Major**

Required: Four lower division courses, including Philosophy 7 or 21, 22, 31, and one other lower division philosophy course.

**Transfer Students**

Transfer applicants to the Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one philosophy of mind or skepticism and rationality course, one ethical theory course, one symbolic logic course, and one additional philosophy course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admn_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Thirteen upper division (100 series) or graduate (200 series) philosophy courses (52 units), including Philosophy 100A, 100B, 100C. Seven of the 13 courses must be distributed among the groups into which the undergraduate and graduate courses are divided — history of philosophy, logic, semantics and philosophy of science; ethics and value theory; and metaphysics and epistemology. Students should take two courses in each of three of the groups and one course in the remaining group.

Contract courses (199) may be applied toward the major but not toward a group requirement. A maximum of 8 units of course 199 may be applied toward the major but not toward a group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. No course used to satisfy the major or preparation requirements may be taken on a P/NP basis.

Students intending to do graduate work in philosophy should consult both the graduate and undergraduate advisers.

**Honors Program Admission**

To be admitted to the honors program, students must have taken at least three upper division philosophy lecture or seminar courses at UCLA with an overall grade-point average of 3.7.

**Requirements**

To be awarded honors in philosophy at graduation, Philosophy majors must (1) have a 3.7 grade-point average in UCLA philosophy courses and a 3.7 GPA in upper division UCLA philosophy courses; (2) satisfy the honors directed study requirement by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper division philosophy courses supervised by the instructors of those courses; and (3) receive a grade of A— or better in each course applied toward satisfaction of the honors requirement.

Students may substitute Philosophy 191 for either course 198A or 198B or, alternatively, may complete up to two philosophy graduate seminars in lieu of courses 198A and/or 198B. For an undergraduate or graduate seminar to be applied toward the honors directed study requirement, the consent of both the seminar instructor and the faculty honors adviser is required in advance. Students may also substitute up to one 4-unit Philosophy 199 course in which they produce a substantial paper that represents an original piece of research or its equivalent.

**PHARMACOLOGY**

See Molecular and Medical Pharmacology

**PHILOSOPHY**

College of Letters and Science

UCLA

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http://www.philosophy.ucla.edu

John P. Carriero, Ph.D., Chair

Barbara Herman, Ph.D., Vice Chair

Professors

Joseph Almog, D.Phil.
Tyler Burge, Ph.D.
John P. Carriero, Ph.D.
Exceptional work done to satisfy the honors re-

requirement may be submitted to the department
chair for consideration for highest honors.

Philosophy Minor

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

Required Lower Division Courses (8 units): Philo-

sophy 7 or 21, and 22 or 31.

Required Upper Division Courses (24 units): Five courses, including at least one from each of the three groups of courses into which the under-

graduate and graduate courses are divided (Philosophy 100A, 100B, 100C apply toward Group I); one additional upper or lower division philosophy course.

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

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

cript and diploma.

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa /library/pgmrqintro.htm. In many cases, more
detailed guidelines may be outlined in an-

ouncements, other publications, and websites
of the schools, departments, and programs.

Graduate Degrees

The Department of Philosophy offers Master of
Arts (M.A.), Candidate in Philosophy (C.Phil.),
and Doctor of Philosophy (Ph.D.) degrees in
Philosophy. A concurrent degree program (Phi-
losophy Ph.D./Law J.D.) is also offered.

Philosophy

Lower Division Courses

1. Beginnings of Western Philosophy. (5) Lecture,

three hours; discussion, one hour. Origins of Greek
cosmology and philosophy, beginnings of systematic
thought and scientific investigation concerning such
questions as origin and nature of the material world,
concept of laws of nature, possibility and extent of
knowledge. Concentration on pre-Socratic philos-

ophers, particularly Anaximander, Heraclitus, the Py-
thagoreans, Parmenides, Empedocles, and Greek at-

omists, 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 reli-
gious belief, relation between religion and ethics, na-
ture and existence of God, problem of evil, and what

can be learned from religious experience.

3. Historical Introduction to Philosophy. (5) Lecture,

tree hours; discussion, two hours. Historical in-

roduction to Western philosophy based on classical
texts dealing with major problems, related thematical-
ly and studied in chronological order; properties of ra-
tional argument, existence of God, problem of knowl-

dge, nature of causality, relation between mind and
body, possibility of justice, and others. P/NP or letter

grading.

4. Philosophical Analysis of Contemporary Moral

Issues. (5) Lecture, three hours; discussion, one

hour. Critical study of principles and arguments ad-
vanced in discussion of current moral issues. Possible
topics include revolutionary violence, rules of warfare,
sexual morality, right of privacy, punishment, nuclear
warfare and deterrence, abortion and mercy killing,
experimentation with human subjects, rights of wom-

en. P/NP or letter grading.

5. Philosophy in Literature. (5) Lecture, three

days; discussion, one hour. Philosophical inquiry into
such themes as freedom, responsibility, guilt, love,
self-knowledge and self-deception, death, and mean-

ing of life through examination of great literary works
in Western tradition. P/NP or letter grading.

6. Introduction to Political Philosophy. (5) Lecture,

three hours; discussion, one hour. Study of some clas-
sical or contemporary works in political philoso-

phy. Questions that may be discussed include: What is
justice? Why obey the law? Which form of govern-
ment is best? How much personal freedom should be
allowed in society? P/NP or letter grading.

7. Introduction to Philosophy of Mind. (5) Lecture,

tree hours; discussion, one hour. Introductory study
of philosophical issues about nature of the mind and
its relation to the body, including materialism, func-
tionalism, behaviorism, consciousness, mental and free
will, nature of psychological knowledge. P/NP or letter

grading.

8. Introduction to Philosophy of Science. (5) Lecture,

three hours; discussion, one hour. Study of se-
lected problems concerning the character and reliabil-
ity of scientific understanding, such as nature of sci-

tific theory and explanation, reality of theoretical
entities, inductive confirmation of hypotheses, and oc-
currence of scientific revolutions. Discussion of con-

 temporary and historical; forms of reasoning and structure of language.

arguments: how to analyze them and assess sound-
ness of the reasoning they represent. Common falla-
cies that often occur in arguments discussed in light
of what counts as a good deductive or inductive infer-
ence. Other topics include use of language in argu-
mamental and logical reasoning; how arguments are
transformed in light of con-

vening 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).

10. Skepticism and Rationality. (5) Lecture, four

hours; discussion, one hour. Can we know anything
with certainty? How can we justify any of our beliefs?

Introduction to study of these and related questions

through works of some great philosophers of moder-

n times, such as Descartes, Hume, Leibniz, or Berke-

ley. P/NP or letter grading.

11. Foundations of Ethical Theory. (5) Lecture,

three hours; discussion, one hour. Preparation: one
philosophy course. Development of modern ethical

thought: one philosophy course. Strongly recommend-
ed requisite: course 100B. Courses 100A, 100B, and
100C should be taken in immediately successive
terms if possible. Survey of development of meta-

physics and theory of values from about 1800 to 2000,
including Locke and Berkeley, Malebranche and/or
Leibniz, and culminating in Hume and Kant. Topics
may include views of these (and perhaps other) phi-

losophers of their time on mind and body, causality,
existence of God, skepticism, empiricism, limits of hu-

man 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 Greek and of early

dialogues of Plato. P/NP or letter grading.

M101B. Plato — Later Dialogues. (4) (Same as

Classics M146B.) Lecture, three hours; discussion,
one hour. Preparation: course M101A. Study of selected
topics in middle and later dialogues of Plato. P/NP or
letter grading.

M102. Aristotle. (4) (Same as Classics M147.) Lect-
ture, three hours; discussion, one hour. Preparation:
one philosophy course. Study of selected works of Ar-

istotle. P/NP or letter grading.

M103A. Ancient Greek and Roman Philosophy. (4)

(Same as Classics M145A.) Lecture, three hours.
Study of some major Greek and Roman philosophical
texts, including those of Plato, Aristotle, and Hellenis-

tic philosophers, with emphasis on histori-
cal and cultural setting of texts, their literary form,
in-
terrelations, and contribution to discussion of basic
philosophical issues. P/NP or letter grading.

M103B. Later Ancient Greek Philosophy. (4) (Same as

Classics M145B.) Lecture, three hours.
Preparation: one course from 1, 100A, M101B, M102,
or M103A. Study of some major texts in Greek philos-

ophy of later periods. Readings vary and include works by Stoics, skeptics, philoso-

phers 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 philoso-

phy in its great age (from Kindo to Averroes, 850 to

1200), considered in connection with Muslim theology
and mysticism.

105. Medieval Philosophy from Augustine to Mai-

monides. (4) Preparation: one philosophy course.
Development of early medieval philosophy within
framework of Judeo-Christian theology and its assim-

ilation and criticism of Greek philosophical heritage.
Focus on problem of universals, existence and nature
of God, problem of evil, and doctrines of the Trinity
and atonement. Selected writings from Augustine
through Maimonides read in English translation.

107. Topics in Medieval Philosophy. (4) Lecture, four hours. Preparation: one philosophy course. Recommended requisite: course 105 or 106. Study of philosophy and theology of one medieval philosopher such as Augustine, Anselm, Abelard, Aquinas, Duns Scotus, or Ockham, or study of one single area such as logic or theory of knowledge in several medieval philosophers. Topic announced each term. May be repeated for credit with consent of instructor.

C108. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes’ political philosophy, especially Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C208. P/NP or letter grading.

C109. Descartes. (4) Lecture, four hours; discussion, one hour. Requisites: course 21 or two philosophy courses. Study of works of Descartes, with discussion of issues of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C209. P/NP or letter grading.

C110. Spinoza. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Study of philosophy of Spinoza. May be concurrently scheduled with course C210, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

C111. Leibniz. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Study of philosophy of Leibniz. May be concurrently scheduled with course C211, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

C112. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C212. P/NP or letter grading.

C114. Hume. (4) Lecture, four hours. Preparation: one philosophy course. Selected topics from metaphysics, epistemology, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C214. P/NP or letter grading.

C115. Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Study of Kant’s views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C215. P/NP or letter grading.

116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in 19th-century thought.

117. Late 19th- and Early 20th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in work of one or more of following philosophers: Boi zano, Frege, Husserl, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

118. Kierkegaard. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the texts.

119. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in one or more philosophies of early modern period, or study in single area such as theory of knowledge or metaphysics in several philosophies. May be repeated for credit with consent of instructor. Concurrently scheduled with course C219. P/NP or letter grading.

Group II: Logic, Semantics, and Philosophy of Science

124. Philosophy of Science: Historical. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Historical introduction to philosophy of science. Several general topics discussed in context of actual episodes in development of natural sciences. May be repeated for credit with consent of instructor.

125. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. 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.

126. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Prepara- tion: 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.

127A. Philosophy of Language. (4) Lecture, three hours; discussion, one hour. Requisite: course 31. Syntax, semantics, pragmatics. Semantical concept of truth, sense and denotation, synonymy and analyti- city, modalities and tenses, indirect discourse, indexi- cal terms, semantic paradoxes. May be repeated for credit with consent of instructor. P/NP or letter grading.

127B. Philosophy of Language. (4) Lecture, three hours; discussion, one hour. Requisite: course 31 or 127A. Course 127A is not requisite to 127B. 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. P/NP or letter grading.

127C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Recommended: course 127A or 127B. Selected topics similar to those considered in course 127B, but with focus on contemporary figures. May be repeated for credit with consent of instructor. P/NP or letter grading.

128A. Philosophy of Mathematics. (4) Lecture, four hours. Requisites: courses 31, 137, and preferably one additional logic course. Philosophy of mathematic- ics: logicism of Frege and Russell, arithmetic reduced to logic; ramified type theory and impredicative defini- tion (Russell, Poincaré, early Weyl). P/NP or letter grading.


129. Philosophy of Psychology. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course in psychology or philosophy of science. Selected topics arising from psychoneurology, psychology, and philosophy of mind. May be repeated for credit with consent of instructor.

130. Philosophy of Space and Time. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Selected philosophical problems concern- ing nature of space and time. Philosophical impli- cations of space-time theories, such as those of Newton and Einstein. Topics may include nature of geomet- ry, conventionalism, absolutist versus relativist views of space and time, philosophical impact of rela- tivity theory.

131. Science and Metaphysics. (4) Lecture, four hours. Preparation: two philosophy courses. Recom- mended: some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causa- tion, reality and direction of time, time-travel, back- ward causation, realism, objectivity of physical view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.

132. Philosophy of Biology. (4) Lecture, four hours. Preparation: one philosophy course. Intensive study of one or two current topics in philosophy of biology, which may include structure of evolutionary theory, fit- ness, taxonomy, reductionism, concept of biological species, and biological explanation. P/NP or letter grading.

133. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Possible topics include formal theories, definite descriptions, many-valued logics, deviant logics. P/NP or letter grading.

M134. Introduction to Set Theory. (4) Same as Mathematics M114S.) Lecture, three hours; discus- sion, one hour. Requisite: course 135 or Mathematics 110A or 131A. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.


136. Modal Logic. (4) Lecture, four hours. Requisite: course 31. First course in two-term sequence (also see course 176). Topics include various normal modal systems, derivability within the systems, Kripke-style semantics and generalizations, Lemmon/Scott com- pleteness, incompleteness in tense and modal logic, quantificational extensions. Letter grading.

137. Logic, Second Course. (4) (Formerly num- bered 32.) Lecture, three hours; discussion, one hour. Enforced requisite: course 31 (preferably in preceding term). Symbolic logic: extension of systematic develop- ment of course 31. Quantifiers, identity, definite de- scriptions. P/NP or letter grading.

Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Critical study of principles and arguments advanced in dis- cussion of current moral and social issues. Topics similar to those in course 4, but familiarity with some basic philosophical concepts presupposed. May be repeated for credit with consent of instructor.

151A-C151B-151C. History of Ethics. (4-4-4) Lecture, three hours; discussion, one hour. Recommended: two philosophy courses. Each course may be taken independently for credit. P/NP or letter grading. 151A. Selected Classics in Ancient Ethical Theories: Plato, Aristotle; C151B. Modern. Intensive study of Kant’s ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C245; 151C. Selected Classics of Medieval Ethics.

153A. Topics in Ethical Theory: Normative Ethics. (4) Lecture, three hours; discussion, one hour. Requi- site: course 22. Study of selected topics in normative ethical theory. Topics may include human rights, vir- tues and vices, principles of culpability and praisewor- thiness (criteria of right action). May be repeated for credit with consent of instructor. P/NP or letter grading.

C153B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, se- lected problems, and contemporary issues in metaethics. Topics may include analysis of moral lan- guage, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be re- peated for credit with consent of instructor. May be concurrently scheduled with course C253B. P/NP or letter grading.
154. Topics in Value Theory: Rationality and Action. (4) Lecture, three hours; discussion, one hour. Requisites: courses 127A, 127B. Topics of current interest 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 will, and decision theory. May be repeated for credit with consent of instructor. P/NP or letter grading.

154B. Topics in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Requisites: course 127A. Examination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in an attempt to better understand kinds of responsibility and freedom for moral agents. May be repeated for credit. P/NP or letter grading.

155. Medical Ethics. (4) Lecture, three hours; discussion, one hour. Examination of philosophical issues raised by problems of medical ethics, such as abortion, euthanasia, and medical experimentation. P/NP or letter grading.

C156. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C247. P/NP or letter grading.

157A-157B. History of Political Philosophy. (4-4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to political thought of classic works in earlier political theory, especially those by Hobbes, Locke, Hume, and Rousseau. 157A: Reading and discussion of classic works in earlier 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. Examination of recent studies in aesthetic theory. Topics may include art and beauty, aesthetics and ethics, criticism and interpretation of the aesthetic, and aesthetics and politics. May be repeated for credit with consent of instructor.

166. Philosophy of Law. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination, through study of recent philosophical writings, of such topics as nature of law, relationship of law and morals, legal reasoning, punishment, and other related topics by law. May be repeated for credit. P/NP or letter grading.

Group IV: Metaphysics and Epistemology

170. Philosophy of Mind. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of current research concerning mind and mental phenomena, such as relation between mind and body, and our knowledge of other minds. May be repeated once for credit with consent of instructor.

172. Philosophy of Language and Communication. (4) Lecture, three hours; discussion, one hour. Requisites: courses 127A, 127B. Theories of meaning and communication: how words refer to things; limits of meaningfulness; analysis of speech acts; relation of everyday language to scientific discoveries. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Requisite: course 182 or 183. Intensive investigation of one or two selected topics or works in theory of knowledge, such as a priori knowledge, problem of induction, memory, knowledge as justified true belief. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

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 relations between science and religion. Topics announced each term. May be repeated for credit with consent of instructor.


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 one of the following: Nietzsche, Heidegger, Jaspers, Buber, Sartre, or Camus. Emphasis on explanation and interpretation of the texts. May be repeated for credit with consent of instructor.

178. Phenomenology. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics include ontology, epistemology, and particularly philosophy of mind.

179. Asian Philosophy. (4) Lecture, three hours; discussion, one hour. Examination of central concepts and arguments in Buddhist and Chinese philosophy. Appropriate parallels to social concepts in Western tradition. May be repeated for credit with consent of department. P/NP or letter grading.

180. Philosophy of Action. (4) Lecture, four hours. Preparation: two philosophy courses. Study of various concepts employed in understanding human action. Topics may include rational choice, desire, intention, weakness of will, and self-deception. P/NP or letter grading.


182. Elements of Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Study of basic metaphysical questions: nature of physical world, of minds, and of universals; and answers provided by alternative systems (e.g., phenomenalism, materialism, dualism). P/NP or letter grading.

183. Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Analysis of concept of empirical knowledge. May be repeated for credit with consent of instructor. P/NP or letter grading.

184. Topics in Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Intensive investigation of one or two topics or works in metaphysics, 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. P/NP or letter grading.

185. Major Philosophers of 20th Century. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Study of writings of one or more of the following: Bergson, Whitehead, Russell, Ashcraft,蒯因, Moore, Wittgenstein, Carnap, Quine. May be repeated for credit with consent of instructor. P/NP or letter grading.

Special Studies

M187. Philosophical Analysis of Issues in Feminist Theory. (4) Same as Gender Studies M110C.) Lecture, three hours. Requisite for Gender Studies majors: Gender Studies 10, for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy. Critical study of concepts and principles that arise in discussion of women’s rights and liberation. Philosophical approach to feminist theories. May be repeated for credit with consent of instructor. Letter grading.

191. Variable Topics Research Seminars: Philosophy. (4) Seminar, one hour; discussion, three hours. Variable topics; consult Schedule of Classes or “Department Announcements” for topic to be offered in specific term. Reading, discussion, and development of culminating project. May be repeated for credit with consent of instructor. P/NP or letter grading.

198A-198B. Honors Research in Philosophy. (2-2) Tutorial, two hours. Limited to junior/senior philosophy honors program students. Each course to be taken in conjunction with one upper division philosophy lecture course, either concurrently or in subsequent term, under direct supervision of lecture course instructor. Advanced work related to lecture course, further reading, and preparation of 12- to 15-page paper representing original research. Courses 198A and 198B must be taken in conjunction with two different lecture courses, and both must be taken to satisfy departmental honors requirement. May be repeated for credit. Individual contract required. Letter grading.

198C. Honors Research in Philosophy. (4) Tutorial, four hours. Limited to junior/senior philosophy honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Philosophy. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or research project required. Up to 8 units may be applied toward degree requirements, but no 199 course may be substituted for course in one of four groups on basis of similarity of subject matter. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B-200C. Seminar for First-Year Graduate Students. (4-4-4) Seminar limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics. S/U or letter grading.

Group I. History of Philosophy


203. Seminar: History of Ancient Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

206. Topics in Medieval Philosophy. (4) Lecture, four hours. Study of philosophy and theology of one or several medieval philosophers such as Augustin, Anselm, Abelard, Aquinas, Scotus, or Ockham or study of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.
207. Seminar: History of Medieval and Renaissance Philosophy. (4) Seminar, four hours. Selected problems in medieval. May be repeated for credit with consent of instructor. S/U or letter grading.


C209. Descartes. (4) Lecture, four hours; discussion, one hour. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C109. S/U or letter grading.

C210. Spinoza. (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

C211. Leibniz. (4) Lecture, three hours. Selected topics in philosophy of Leibniz. May be concurrently scheduled, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

C212. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of 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) Lecture, four hours. Selected topics in philosophy of Hume. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114. S/U or letter grading.

C215. Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Study of Kant’s views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C115. S/U or letter grading.

216. 19th-Century Philosophy. (4) Seminar, four hours. Topics in 19th-century philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

C219. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Selected topics in one or more philosophies of early modern period, or study in single area such as theory of knowledge or metaphysics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C119. S/U or letter grading.

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. S/U or letter grading.

Group II. Logic, Semantics, and Philosophy of Science

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M114S. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal arithmetic, finiteness and infinity, continuum hypothesis, inaccessible numbers. Formalization of set theory: Zermelo/Fraenkel; von Neumann/Gödel theory. May be repeated for credit with consent of instructor. S/U or letter grading.

C221B. History of Modern Logic. (4) Lecture, four hours. Development of concept of set and axiomatic set theory by examining selected writings of Frege, Cantor, Russell, Zermelo, Gödel, and several others. Origins and significance of modern set theory. May be repeated for credit with consent of instructor. S/U or letter grading.

C224. Philosophy of Physics. (4) Seminar, three hours. Selected philosophical topics related to physical theory, depending on interests and background of participants, including space and time; observation in quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor. S/U or letter grading.

C225. Probability and Inductive Logic. (4) Lecture, three hours. Requisite: course M134 or Mathematics M114S. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. S/U or letter grading.

C226. Topics in Mathematical Logic. (4) Lecture, four hours. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

C227. Philosophy of Social Science. (4) Lecture, four hours. Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relation between social processes and individual psychology, logic of explanation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one’s own. Students with primary interest and advanced preparation in social sciences encouraged to enroll. May be repeated for credit with consent of instructor. S/U or letter grading.

C230. Seminar: Logic. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

C231. Seminar: Intensional Logic. (4) Seminar, four hours. Topics may include logic of sense and denotation, modal logic, logic of demonstratives, epistemic logic, intensional logic, and applications of these logics. S/U or letter grading.

C232. Philosophy of Science. (4) Seminar, three hours. Selected topics in philosophy of science. May be repeated for credit with consent of instructor. S/U or letter grading.

C233. Seminar: Philosophy of Physics. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

Group III. Ethics and Value Theory

241. Topics in Political Philosophy. (4) Seminar, four hours. Requisites: course 150 or C156 or 157A or 157B or any two philosophy courses. Examination of one or more topics in political philosophy (e.g., justice, democracy, human rights, political obligation, alienation). May be repeated for credit with consent of instructor. S/U or letter grading.

C245. History of Ethics: Modern. (4) Lecture, three hours; discussion, one hour. Intensive study of Kant’s ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C151B. S/U or letter grading.

C246. Seminar: Ethics. (4) Seminar, four hours. Selected topics. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

C247. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C156. S/U or letter grading.

C248. Problems in Moral Philosophy. (4) Seminar, four hours. Intensive study of some leading current problems in moral philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

C253B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, selected problems, and contemporary issues in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C153B. S/U or letter grading.

C254A-254B. Legal Theory Workshop. (1 to 8 each) (Same as Law M555.) Seminar, three hours. Course M254A is enforced requisite to 254B. Students engage with work in progress on philosophical issues in law of leading scholars from around country. Presentation of works in progress by visiting scholars every two weeks. Study by students of papers to be presented to gain background in relevant topics and to be prepared for speakers’ presentations. Presentation of student papers to class for discussion. Substantial analytical paper 254A (Same as Law M254A) and S/U or letter (254B) grading.

C255. Seminar: Aesthetic Theory. (4) Seminar, four hours. Selected topics. May be repeated for credit with consent of instructor. S/U or letter grading.

C255A-255B. Topics in Legal Philosophy. (4) (Same as Law M255.) 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.

C257. Philosophy Legal Theory. (1 to 8) (Same as Law M524.) Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. S/U or letter grading.

C257A-257B. Philosophy Legal Theory. (1 to 8 each) (Formerly numbered M257.) (Same as Law M524.) Seminar, two hours. Course M257A is enforced requisite to 257B. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. In Progress (M257A and S/U or letter (257B) grading.

258. Contemporary Philosophy of Law. (4) Seminar, three hours. Limited to graduate students. Recent contributions to theoretical literature on contract law. Possible topics include purpose or function of contract law, relationship of contracts to promises, whether fact should play larger (or smaller) role in contract law, remedial approaches to breach including larger role for unjust enrichment, and contract law’s treatment of fraud and deception. Readings from legal and philosophical literature. S/U or letter grading.

C259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. Must be taken for 4 units in quarters in which students present their own research. May be repeated for credit with consent of instructor. S/U grading.

Group IV. Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

275. Human Action. (4) Preparation: two upper division philosophy courses. Examination of theories, concepts, and problems concerning human actions. Topics may include analysis of intentional actions; determinism and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.
280. 20th-Century Continental Philosophy. (4) Seminar, three hours. Selected topics in 20th-century continental European philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

281. Seminar: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

282. Seminar: Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

283. Seminar: Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

284. Seminar: Philosophy of Perception. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

285. Philosophy of Psychoanalysis. (4) Seminar, three hours. Examination of topics such as nature and validity of psychoanalytic explanations and interpretations, psychoanalysis and language, metapsychological concepts such as the unconscious, ego, id, super-ego, defense mechanisms, and psychoanalytic conception of human nature. S/U or letter grading.

286. Philosophy of Psychology. (4) Seminar, four hours. Relevance of computer simulation to accounts of thinking and meaning; relations between semanti- cal theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology. S/U or letter grading.

287. Seminar: Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

289. Seminar: Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

290. Workshop: Philosophy of Language. (4) Seminar, two hours. Ongoing discussion of current is- sues in philosophy of language based on contempo- rary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on con- temporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U or letter grading.

292. Seminar: Philosophical Research. (4) Seminar, three hours. Preparation: advancement to candi- dacy. Presentation of ongoing research by graduate students or faculty members. Participants make pre- sentations, analyze and discuss presentations of oth- ers, and read and discuss philosophical texts related to presentations. May be repeated for credit with con- sent of instructor. S/U grading.

Special Studies

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

495. Teaching College Philosophy. (2 to 4) Semi- nar, to be arranged. Seminars, workshops, and appren- tice teaching. Selected topics, including evaluation scales, various teaching strategies and their ef- fects, and other topics in college teaching. May be repeated for credit. S/U grading.

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

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Properly qualified graduate students who wish to pursue one problem through reading or advanced study may do so if their proposed project is acceptable to one staff member. May be repeated for credit. S/U or letter grading.


PHYSICS AND ASTRONOMY

College of Letters and Science

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Eric D. Hoker, Ph.D., Vice Chair, Academic Affairs
Ian S. McLean, Ph.D., Vice Chair, Astronomy
David Saltzberg, Ph.D., Vice Chair, Resources

Professors
Katsushi Ariasaka, Ph.D.
Maha Ashour-Abdalla, Ph.D.
Zvi Bern, Ph.D.
Stuart E. Brown, Ph.D.
Robijn F. Bruinsma, Ph.D.
Troy A. Carter, Ph.D.
Sudip Chakravartty, Ph.D. (David Saxon Presidential Professor of Physics)
David B. Cline, Ph.D.
Ferdinand V. Coroniti, Ph.D.
Robert D. Cousins, Ph.D.
Eric D’Hoker, Ph.D.
Sergio Ferrara, Ph.D.
Christian Fronsdal, Ph.D.
Walter N. Gekelman, Ph.D.
Graciela Gelmí, Ph.D.
Andrew M. Ghez, Ph.D. (Laurel B. Leichtman and Arthur E. Levine Astrophysics Endowed Professor)
George Gruner, Ph.D.
Michael Gutperle, Ph.D.
Bradley M. Hansen, Ph.D.
Jay Hauser, Ph.D.
Károly Holczer, Ph.D.
Huan Z. Huang, Ph.D.
David C. Jewett, Ph.D.
Hong-Wen Jhang, Ph.D.
Michael A. Jura, Ph.D.
Per J. Kraus, Ph.D.
Alexander Kusenko, Ph.D.
James E. Larkin, Ph.D.
Alexandre J. Levin, Ph.D.
Matthew A. Malik, Ph.D.
Thomas G. Mason, Ph.D.
Ian S. McLean, Ph.D.
Jianwei Miao, Ph.D.
George J. Morales, Ph.D.
Warren B. Mori, Ph.D.
Mark R. Morris, Ph.D.
William I. Newman, Ph.D.
Rene A. Ong, Ph.D.
C. Kumar N. Patel, Ph.D.
Roberto Pececi, Ph.D.
Seth J. Putterman, Ph.D.
James Rosenzweig, Ph.D.
Joseph A. Rudnick, Ph.D.
David Saltzberg, Ph.D.
E.T. Tomboulis, Ph.D.
Jean L. Turner, Ph.D.
Rainer S. Wallny, Ph.D.
Gary A. Williams, Ph.D.
Edward L. Wright, Ph.D. (David Saxon Presidential Professor of Physics)
Giovanni Zocchi, Ph.D.

Professors Emeriti
Ernest S. Abers, Ph.D.
Eric E. Becklin, Ph.D.
Rubin Braunstein, Ph.D.
Charles D. Buchanan, Ph.D.
Nina Byers, Ph.D.
Marvin Chester, Ph.D.
W. Gilbert Clark, Ph.D.
John M. Cornelius, Ph.D.
Robert J. Fisk, Ph.D.
Roy P. Haddock, Ph.D.
George J. Igo, Ph.D.
Steven A. Moskowski, Ph.D.
Bernard M.K. Nefkens, Ph.D.
Claudio Pepe, Ph.D.
William E. Slater, Ph.D.
Reiner L. Stenzel, Ph.D.
Roger K. Ulrich, Ph.D.
Alfred Y. Wong, Ph.D.
Chun Wa Wong, Ph.D.
Byron T. Wright, Ph.D.
Benjamin M. Zucker, Ph.D.

Associate Professors
Dolores Bozovic, Ph.D.
Steven R. Furlanetto, Ph.D.
Jean-Luc C. Margot, Ph.D.
Mayank R. Mehta, Ph.D.
Pietro Musumeci, Ph.D.
Alice E. Shapley, Ph.D.
Yaroslav Tserkovnyak, Ph.D.
Vladimir V. Vassiliev, Ph.D.

Assistant Professors
Michael P. Fitzgerald, Ph.D.
Eric R. Hudson, Ph.D.
Christoph Niemann, Ph.D.
Brian C. Regan, Ph.D.
Rahul Roy, Ph.D.

Adjunct Professors
Elhun Abrahams, Ph.D.
William A. Barletta, Ph.D.

Adjunct Assistant Professor
Martin D. Simon, Ph.D.

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 synergisti- cally. Newton’s discovery of the laws of me- chanics and universal gravitation not only ex- plained motion on Earth, but brought the heav- ens and Earth into a single quantitative framework in which both are governed by the same laws. The revolutionary discoveries of twentieth-century physics — quantum mechan- ics and nuclear physics — were rapidly ad- opted by astronomers to interpret the spectro- scopical observations of the stars and to con- struct accurate models of stellar structure. Einstein’s general theory of relativity predicted the expansion of the universe and that most awesome compaction of matter — the black hole.
Today astronomers study the accretion of matter onto supermassive black holes in quasars and search the most distant regions of the universe to learn about the exotic physical conditions that existed when the universe's expansion was only fractions of a second old. By measuring the gravitational interactions on distance scales from galaxies to the vast superclusters of galaxies, astronomers have concluded that most of the universe's matter is dark or nonluminous; physicists have speculated that this dark matter may consist of yet-undiscovered exotic particles that are predicted by the most advanced theories of elementary particle physics.

Department of Physics and Astronomy faculty members and students are able to study the universe in the holistic manner which is demanded by the breadth of these two disciplines.

Undergraduate Study

The Department of Physics and Astronomy offers a choice of four undergraduate majors: the B.S. degree program in Astrophysics, the B.S. degree program in Biophysics, the B.S. degree program in Physics, and the B.A. degree program in Physics. Each course taken to fulfill any of the requirements for the majors must be taken for a letter grade.

Astronomy Courses

The department offers general courses to all University students, including those who are not science oriented.

Astronomy 3 is the fundamental one-semester course for students who do not major in physical sciences and should be taken in the first or second year.

Astronomy 4, 5, and 6 develop the topics covered in course 3 to somewhat greater depths but are still aimed at nonscience majors. Course 4 discusses stellar and supermassive black holes; course 5 concentrates on the problem of life in the universe; course 6 discusses the structure and evolution of the universe.

Astronomy 81 and 82 are general survey courses recommended for science majors in their second year. They systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 31A 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 10 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: Chemistry and Biochemistry 20A.

Transfer Students

Transfer applicants to the Astrophysics major with 90 or more units must have completed the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major


Biophysics B.S.

The goal of the Biophysics major is to provide students with the undergraduate background to enable them to enter very good graduate programs in biophysics, molecular biology, and physics. As the molecular biophysics field emerges as an important and rapidly developing area of scientific research and knowledge, the major is designed to provide both the scientific/technical training and the immersion in physics and molecular biology necessary to enable students to understand and integrate these fields intellectually and to have the opportunity to become leaders in bringing the analytic and experimental techniques of both fields to bear on the complicated behavior of microbiological macromolecular systems.

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Chemistry and Biochemistry 20A, 20B, 30A, 30B; Life Sciences 2, 3 or 3H, 4; Mathematics 31A, 31B, 32A, 32B, 33A. Recommended: Life Sciences 1, Mathematics 33B, Physics 18L.

Transfer Students

Transfer applicants to the Biophysics major with 90 or more units must have completed the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major


Biophysics B.S.

The Biophysics B.S. 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; Chemistry and Biochemistry 20A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Transfer Students

Transfer applicants to the Physics B.S. major with 90 or more units must complete the following introductory courses prior to admission to
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 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 be thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the undergraduate advisers. A C average is required in all courses taken to satisfy the major requirements.

Students preparing for graduate school should take additional courses in physics and mathematics. Physics 108, 114, 117, M122, 123, 124, 126, 132, 140A, and 140B are recommended.

Honors Programs

The department offers three honors programs leading to graduation with honors or highest honors in physics. Students are eligible after completing the preparation for the major and four upper division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.

Physics B.A.

The Physics B.A. major is intended to provide a strong background in physics, yet allow students flexibility to study other fields as well. It should be of particular interest to students who want to double major or who want to teach science. Students who intend to continue work toward the Ph.D. in Physics 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; Chemistry and Biochemistry 20A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Transfer Students

Transfer applicants to the Physics B.A. major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one general chemistry course for majors.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

Astronomy

Lower Division Courses

3. Nature of Universe. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for or currently enrolled in course 81 or 82. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences, on development of ideas in astronomy and what has been learned of nature of universe, including recent discoveries and developments. P/NP or letter grading.

4. Black Holes and Cosmic Catastrophes. (4) Lecture, three hours; discussion, one hour. Essentially nonmathematical course for general UCLA students that discusses black holes and related cosmic catastrophes. White dwarfs, neutron stars, and black holes are compact objects formed in violent events that terminate the lives of stars and are associated with some of the most energetic and explosive phenomena in astrophysics: planetary nebulae and novae (white dwarfs), supernovae, pulsars, galactic X-ray sources, and gamma ray bursts. Supersensitive black holes form in the nucleus of young galaxies, and gravitational accretion of matter onto black holes powers most energetic objects in universe — quasars. Universe was born in ultimate cosmic explosion, Big Bang, that must have derived its energy from quantum mechanical vacuum. P/NP or letter grading.

5. Life in Universe. (4) Lecture, four hours; discussion, one hour. Preparation: prior introduction to astronomy. Life on Earth and prospects for life elsewhere in context of evolution of universe from simple to complex. Course material primarily from astronomy and biology but includes some chemistry, geology, and physics. Selected topics treated in some depth, but with little or no formal mathematics. P/NP or letter grading.


7. Astronomy and Media. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Designed to help nonmajors develop skills to continuously learn about science through media. Detailed study of research currently in media, including meteor impacts, greenhouse effect, NASA, cosmology, and extraterrestrial life. Investigation of forces that influence science reporting. P/NP or letter grading.

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 instruments for star observation. Stellar structure, planetary and gaseous nebulae. P/NP or letter grading.

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Recommended: course 81, Physics 1B and 1C (or 1BH and 1CH). Open to qualified sophomore and upper division students. Basic principles of stellar structure and evolution. Red giants, white dwarfs, novae, supernovae, neutron stars, and black holes. Pulsars and galactic X-ray sources. Milky Way galaxy and interstellar medium. Extragalactic astronomy, galaxy clustering, active galactic nuclei, and quasars. Introduction to cosmology: Hubble law, thermal history of Big Bang, and earliest moments of universe. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (2 each) Seminar, two hours. Limited to freshmen. Variable topics; consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

88A. Cosmic Evolution. (2) Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of evolution; discussion of how, over billions of years, basic mechanisms of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.

Upper Division Courses

115. Statistical Mechanics and Its Application to Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A, 33B, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Particle distributions, partition functions, black body radiation, Saha equation, degeneracy. Applications to stellar atmospheres, stellar interiors, and interstellar medium. P/NP or letter grading.


127. Stellar Atmospheres, Interiors, and Evolution. (4) Lecture, three hours; discussion, one hour. Recommended requisites: courses 115, 117. Designed for senior Astrophysics and Physics majors. Physical conditions in stellar interiors. Energy production in stars. Stellar evolution from star formation through normally observed stages to white dwarfs, neutron stars, and black holes. Novae, supernova,
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other variable stars, chromospheres and coronae of sun and stars. Evolution of binary stars. Analysis of stellar atmospheres, spectra and location.  


180. Astrophysics Laboratory. (4) Lecture, two hours; laboratory, four hours. Designed for juniors/se- niors in Astronomy, Physics, or 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. Emphasis on use of comput- ers for automatic collection of data and for processing two-dimensional astronomical images. P/NP or letter grading.  

190. Research Colloquia in Astrophysics. (2) Seminar, two hours. Designed to bring together stu- dents undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one or more term members. May be re- peated for credit. P/NP grading.  

194. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for un- dergraduate students who are part of research group/ laboratory. Discussion of research of faculty members or students with regard to understanding methodology in field and/or laboratory equipment. May be re- peated for credit. P/NP grading.  

196. Research Apprenticeship in Astrophysics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors with overall 3.0 grade-point average. Entity-level research apprenticeship for upper division students under guidance of faculty member. May be re- peated for credit. Individual contract required. P/NP grading.  

197. Individual Studies in Astronomy, (2 to 4) Tuto- rial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As- signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.  

198. Honors Research in Astrophysics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with minimum overall 3.0 grade-point average. Development and completion of comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual con- tract required. Letter grading.  

199. Directed Research or Senior Project in Ast- ronomy. (2 to 4) Tutorial, two hours. Limited to ju- nior/senior Astrophysics and Physics majors. Super- vised individual research or investigation under guid- ance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract re- quired. P/NP or letter grading.  

Graduate Courses


277A-277B. Astronomy Research Project. (5-6) Tu- torial, to be arranged. Designed for second-year grad- uate astronomy students. Two-term research project planned in conjunction with faculty advisor on any suitable research topic in astronomy or astrophysics, culminating in written report and defense at end of second term. S/ U (277A) and letter (277B) grading.  

278. Special Topics in Astronomy. (2 or 4) Semi- nar, to be arranged. Informal course with lecture/se- minar format, focusing on one of set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.  

279. Seminar: Current Astronomical Research. (2) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U grading.  

281. Quantum Mechanics for Astrophysics. (4) Lecture, four hours. Designed for departmental gradu- ate students. Quantum mechanical topics in areas of interest for astrophysics applications. Hydrogen atoms, radiative transitions, complex atoms, molecular spec- troscopy including electronic, vibrational, and rotation- al transition, nuclear reaction theory. Letter grading.  


283. Numerical and Statistical Methods. (4) Le- cture, three hours. Topics selected by instructor in mathematical, numerical, and statistical methods of relevance to modern research. Topics include Fourier transforms, filtering, and power spec- tra, numerical algorithms, N-body codes, maximum likelihood, Bayesian inference, and error estimation. Letter grading.  


290. Research Topics in Astronomy. (2) Dis- cussion, two hours. Advanced study and analysis of cur- rent topics in astronomy. Discussion of current re- search and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.  

292. Research Tutorial: Astroparticle Physics. (2 or 4) (Same as Physics M292.) Tutorial, one hour; discussion, two hours. Required of each graduate stu- dent doing research in this field. Seminar and discus- sion by faculty, postdoctoral fellows, and graduate stu- dents on topics of current interest in astrophysical physics. May be repeated for credit. S/U grading.  

297. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice person- nel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsi- ble for curriculum and instruction at UCLA. May be re- peated for credit. S/U grading.  

957A. Directed Individual Studies. (4 to 10) TUTORI- al, to be arranged. May be repeated at discretion of department. S/U grading.  

597A. Directed Industrial Studies. (4 to 10) TUTORI- al, to be arranged. May be repeated at discretion of department. S/U grading.  

958A. Directed Advanced Study and Research at Lick Ob- servatory. (4 to 12) Tutorial, to be arranged. De- signed for graduate students who require observa- tional experience, as well as those working on observ- ational problems for their dissertation. May be repeated at discretion of department. S/U grading.  

997A. Ph.D. Research and Writing. (10 to 12) Tutori- al, to be arranged. May be repeated at discretion of department. S/U grading.  

Physics

Lower Division Courses

1A. Physics for Scientists and Engineers: Me- chanics. (5) Lecture/demonstration, four hours; dis- cussion, one hour. Recommended preparation: high school physics, one year of high school calculus or Mathematics 31A and 31B. Enforced requisites: Mathematics 31A, 31B. Enforced corequisite: Mathe- matics 32A. Recommended corequisite: Mathematics 32B. Motion, Newton laws, work, energy, linear and angular momentum, rotation, equilibrium, gravitation. P/NP or letter grading.  

1B. Physics for Scientists and Engineers: Me- chanics (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Recommended preparation: high school physics, one year of high school calculus or Mathematics 31A and 31B. Enforced requisites: Mathematics 31A, 31B. Enforced corequisite: Mathe- matics 32A. Recommended corequisite: Mathematics 32B. Enriched preparation for upper division physics courses. Same material as course 1A but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grad- ing.
1B. Physics for Scientists and Engineers: Oscilla-
tions, Waves, Electric and Magnetic Fields. (5)
Lecture, three hours; discussion, one hour.
Enforced requisites: course 1A. Mathematics 31B, 32A.
Enforced corequisite: Mathematics 32B. Recommended corequisite:
Mathematics 33A. Recommended corequisite: Mathematics 33A.
Recommended corequisite: Mathematics 32B. Recommended corequis-
ite: Mathematics 33A. Recommended preparation: Physics 3.
Lecture/demonstration, four hours; discussion, one hour.
Enforced requisites: courses 1A or 1AH, 1B or 1BH, 3A, 32A, 32B.
Enforced corequisite: Mathematics 33A. Recommended corequis-
ite: Mathematics 33B. Enriched preparation for upper division physics
courses. Same material as course 1B but in greater depth;
recommended for Physics majors and other students desiring such coverage.
P/NP or letter grading.
1C. Physics for Scientists and Engineers: Electro-
dynamics, Optics, and Special Relativity. (5)
Lecture/demonstration, four hours; discussion, one hour.
Enforced requisites: courses 1A, 1B, 3A, 32A, 32B.
Enforced corequisite: Mathematics 33A. Recommended corequis-
ite: Mathematics 33B. Enriched preparation for upper division physics
courses. Same material as course 1B or 1C but in greater depth;
recommended for Physics majors and other students desiring such cover-
egage. P/NP or letter grading.
1Q. Contemporary Physics. (2)
Lecture, three hours. Enforced requisites: courses 1A or 1AH.
Lecture, three hours; discussion, one hour; laboratory, three hours.
Enforced requisites: courses 1A or 1AH or 1A, 1B, 31B, 32A, 32B.
Enforced corequisite: Mathematics 33A. Recommended corequis-
ite: Mathematics 33B. Enriched preparation for upper division physics
courses. Same material as course 1B but in greater depth;
recommended for Physics majors and other students desiring such coverage.
P/NP or letter grading.

6B. Physics for Life Sciences Majors: Waves, Electri-
cy, and Magnetism. (5)
Lecture, three hours; discussion, one hour; laboratory, two hours.
Enforced requisites: course 6A or 6AH. Not open for credit to
students with credit for course 6CH. Mechan-
ical waves, sound, electricity and magnetism, electro-

cal, and biochemical systems. Physics of states of
energy, and momentum, with applications to biologi-

6CH. Physics for Life Sciences Majors: Electricity,
Magnetism, and Transport (Honors). (5)
Lecture, three hours; discussion, one hour; laboratory, two hours.
Enforced requisites: course 6A or 6AH. Not open for credit to
students with credit for course 6CH. Sound and electromagnetic waves, interference, dif-
fractive effects. Additional topics of fundamental or current inter-

cal waves, sound, electricity and magnetism, electro-

6DH. Physics for Life Sciences Majors: Statics,
Dynamics, Thermodynamics. (5)
Lecture, three hours; discussion, one hour; laboratory, two hours.
Enforced requisites: course 6A or 6AH. Not open for credit to
students with credit for course 6CH. Mechanics, including first, second, and third laws. Gravita-
tion, accelerated motion, kinetic and potential ener-
gy, potential, capacitors, and dielectrics. Currents and DC
circuits. Magnetic field. P/NP or letter grading.

6EH. Physics for Life Sciences Majors: Waves,
Dynamics, and Hydrodynamics (Honors). (5)
Lecture, three hours; discussion, one hour; laboratory, two hours.
Enforced requisites: course 6A or 6AH. Not open for credit to
students with credit for course 6CH. Waves, sound, electricity and magnetism, electro-

7A. Physics for Scientists and Engineers: Air Flows,


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 circuit design and logic and methods to reduce its influence in electrical measurements.

117. Electronics for Physics Measurement. (4) Lecture, three hours; laboratory, two hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Hands-on experimental course to develop understanding of design principles in modern electronics for physics measurements. Broadening analog and digital electronics from practical viewpoint, followed by examination of typical circuits for scientific instrumentation and study of methods of computer data acquisition and signal processing. P/NP or letter grading.

118. Electronics for Physical Measurements. (4) Lecture, three hours; laboratory, four hours. Requisites: courses 1A, 1B, 1C, 117, Mathematics 32A, 32B, 33A. Provides students with opportunity to apply basic knowledge of circuit design for purpose of building stand-alone circuits with function related to control or measurement. Examples of physics-oriented projects include radio-frequency detection and measurement of radio frequency of bar. PM transistor, speed of sound using radio-frequency pulsed ultrasonic, sun-following pointers, cosmic ray detector. P/NP or letter grading.

M122. Introduction to Plasma Electronics. (4) (Same as Electrical Engineering M185.) Lecture, three hours. Requisite: course 110A or Electrical Engineering 101. Senior-level introductory course on electronics of ionized gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

123. Atomic Structure. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Theory of atomic structure. Interaction of radiation with matter. P/NP or letter grading.

124. Nuclear Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Nuclear properties, nuclear force, nuclear reactions, and nuclear reactions. P/NP or letter grading.

125. Classical Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Introduction to physics of elementary particles. The four basic interactions: strong, electromagnetic, weak, and gravitational. Properties of baryons, mesons, quarks, and leptons; conservation laws, symmetries and broken symmetries; the Standard Model; experimental techniques; new physics at the new accelerators. P/NP or letter grading.


128. Cosmology and Particle Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 115B, 126. Introduction to cosmology and high-energy particle astrophysics, based on latest developments of both experiment and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. Extensive discussion of unsolved problems and future trends determine their opportunities in future. Letter grading.


140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, 1C, 4AL, 4BL, 6A, 6B, 6C, Chemistry 14A or 20A. Formal theory: commutator algebra, Hermitian operators. Three-dimensional space, linear transformations, matrices, and operators; Fourier series and integrals. P/NP or letter grading.

140B. Properties of Solids. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 114. Introduction to basic theoretical concepts of solid-state physics with applications. Crystal symmetry; cohesive energy; diffusion of electron, neutron, and electromagnetic waves in a lattice; reciprocal lattice; phonons and their interactions; free electron theory of metals; energy bands. Letter grading.

145D. Acoustics Laboratory. (4) Lecture, three hours; computer time, two hours. Limited to junior/senior majors. Departmentally sponsored temporary courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

145F. 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.

M180G. Soft Matter Laboratory. (4) (Same as Chemistry M120.) Laboratory, four hours. P/NP or letter grading.


186. Neurophysics: Brain-Mind Problem. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, 1C, 14A or 20A, Mathematics 3A, 3B, 3C, 31A, 32A, 32B, 33A. How does mind emerge from brain? Provides summary of basic biology of neurons, synapses, and plasticity. Introduction to commonly used experimental and theoretical techniques of measuring, quantifying, and modeling neural activity, and their relative strengths and weaknesses and use of them to understand link between neural circuits, their emergent neural dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between neural circuits and their role in cognition, learning, and sleep. Computer laboratory component where students learn to write simple codes to quantify neural activity patterns. P/NP or letter grading.


188. Special Courses in Physics. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Astrophysics and Physics majors. Departmentally sponsored temporary courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

188L. Special Laboratory Courses in Physics. (4) Lecture, one hour; laboratory, two hours. Limited to junior/senior major and to those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

190. Research Colloquium in Physics. (2) Seminar, two hours. Designed to bring together students under- taking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or their related work in the presence of one supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Physics and Astronomy. (4) Seminar, three hours. Participating research seminar on advanced topics in physics. Reading, discussion, and development of culminating project. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.
Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Training and support for practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course settings. May be repeated for credit. P/NP or letter grading.

Journal Club Seminars: Physics and Astronomy. (2) Seminar, one hour. Limited to undergraduate students. Seminars are linked to speaker-series seminars offered by the department on weekly basis. Supplemental reading from literature on speaker’s topic, as well as active participation and discussion to understand what kind of questions modern-day physicists actually ask and how they go about answering them. May be repeated for credit. P/NP grading.

Research Group Seminars: Physics and Astronomy. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/laboratory. Discussion of research of faculty members or students with regard to understanding methodology in field and laboratory equipment. May be repeated for credit. P/NP grading.

Research Apprenticeship in Physics. (2 to 4) Tutor/mentees for one hour per week. Limited to juniors/seniors with overall 3.0 grade-point average. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

Individual Studies in Physics. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive, one meeting per week. Limited to juniors/seniors with overall 3.0 grade-point average. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

Honors Research in Physics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with overall 3.0 grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. Letter grading.

Directed Research or Senior Project in Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

Modern Physics Research Areas. (2) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


Advanced Atomic Structure. (4) N_j symmetry, continuous groups, fractional parentage coefficients, n electron systems.


Quantum Statistical Mechanics and the Many Body Problem. (4) Lecture, three hours. Classical methods for interacting systems; quantum field theory techniques; statistical mechanics; Green’s functions, propagators. Coulomb gas and Bose-Einstein gas; electron/phonon interaction; superconductivity; phase transitions; theory of Fermi liquid. S/U or letter grading.


Advanced Classical Mechanics. (4) Requisite: course 220. Topics such as nonlinear mechanics, geometric theory, mechanics of continuous media. 224. Introduction to the Strong Interaction. (4) Evidence concerning the strong interaction, particularly as exemplified in nucleon/nucleon and pion/nucleon systems. Isospin, scattering matrix, density matrix and polarization operators, one pion exchange potential, phase shift analysis.

Advanced Nuclear Physics. (4) Requisites: courses 221A, 221B. Normally preceded by course 221A. Structure of complex nucleus, nuclear models, scattering and reactions.


Particle Astrophysics: Exploring Earliest and Extreme Universe. (4) Lecture, three and one-half hours. Requisites: courses 210A, 210B, 221A, 221B. Recommended: course 226A. Introduction to high-energy astrophysics and discussion of latest developments in both experimentation and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. S/U or letter grading.

Quantum Field Theory. (6-6-6) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Modern quantum field theory, including free and interacting field quantization, operator and path integral formulation, renormalization theory and renormalization group methods. Quantum electrodynamics and quantum chromodynamics, spontaneous symmetry breakdown, mass generation, and quantum anomalies. S/U grading.

Quantum Field Theory. (4) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Topics in modern quantum field theory, including solitons, instantons, and other topological defects, large N methods, finite temperature field theory, effective field theory methods and chiral Lagrangians, conformal field theory, and topological aspects of anomalies. S/U or letter grading.

Methods of Mathematical Physics. (4) Lecture, three hours. Not open for credit to students with credit for Mathematics 266A. Linear operators, review of functions of a complex variable, integral transforms, partial differential equations. S/U or letter grading.


Relativity. (4-4) Special and general theories, with applications to elementary particles and astrophysics.

Special Topics in General Relativity. (4) Lecture, four hours. S/U grading.


Group Theory and Quantum Mechanics. (4) Requisite: course 221A. Group representation theory and applications to quantum mechanics of atoms, molecules, and solids.

Geometry and Physics. (4) (Same as Mathematics M217.) Lecture, three hours. Interdisciplinary course on topics at interface between physics quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include super-symmetry, Seiberg/Witten theory, conformal field theory, Calabi/Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.

PHYSIOLOGICAL SCIENCE
See Integrative Biology and Physiology
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 the last survey conducted by the National Academies Board on Higher Education and Workplace, UCLA’s Physiology Department was judged second 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 interdepartmental Molecular, Cellular, and Integrative Physiology Ph.D. Program. See http://www.mcip.ucla.edu or UCLA ACCESS to Programs in Molecular, Cellular, and Integrative Life Sciences at http://www.uclaaccess.ucla.edu.

### Physics

#### 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. Directed Research in Physiology. (2 to 12) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

#### Graduate Courses

M210. Molecular and Cellular Mechanisms of Neural Integration. (5) (Same as Neuroscience M230 and Physiological Science M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in measurement. Conductance and single channel properties discussed in current currents, as well as relationship between macroscopic conductance changes, and generation and propagation of the nerve impulse. Voltage gating and gating currents as well as relationship between macromolecular 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. Requisite: 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.

296. Current Topics in Physiology. (2 to 4) Lecture, one hour; discussion, one hour. Designed for graduate students. Students read primary literature in a specified area and conduct or participate in discussions on these papers. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


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### POLITICAL SCIENCE

#### College of Letters and Science

UCLA

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Jeffrey B. Lewis, Ph.D., Chair

#### Professors

Joel D. Aberbach, Ph.D.

James D. DeVierdor, Ph.D.

Joshua F. Dienstag, Ph.D.

Barbara Geddes, Ph.D.

Franklin D. Gilliam, Jr., Ph.D.

Miriam A. Golden, Ph.D.

Timothy J. Groseclose, Ph.D. (Marvin Hoffenberg Professor of American Politics and Public Policy)

Edmond Keller, Ph.D.

Deborah W. Larson, Ph.D.

Michael F. Lothlie, Ph.D.

Susanne Lohmann, Ph.D.

Barbara J. Nelson, Ph.D.

Gary A. Orfield, Ph.D.

Karen J. Orren, Ph.D.

Anthony R. Pagden, Ph.D.

Mark A. Petersen, Ph.D.

Ronald L. Rogowski, Ph.D.

Michael L. Ross, Ph.D.

Mark O. Sawyer, Ph.D.

Thomas Schwartz, Ph.D.

David O. Sears, Ph.D.

Giulia Sissa, Ph.D.

Steven L. Spiegel, Ph.D.

Arthur A. Stein, Ph.D.

James Tong, Ph.D.

Marc Trachtenberg, Ph.D.

Daniel S. Treisman, Ph.D.

David O. Wilkinson, Ph.D.

John R. Zaller, Ph.D.

#### Professors Emeriti

Edward Gonzalez, Ph.D.

Robert S. Gerstein, Ph.D.

John R. Zaller, Ph.D.

Rachel N. Rosecrance, Ph.D.

Barbara L. Sinclair, Ph.D. (Marvin Hoffenberg Professor Emerita of American Politics and Public Policy)

Richard L. Sklar, Ph.D.

David A. Wilson, Ph.D.

Charles E. Young, Ph.D.

#### Associate Professors

Richard D. Anderson, Jr., Ph.D.

Kathleen Bawn, Ph.D.

Michael S.Y. Chwe, Ph.D.

Scott C. James, Ph.D.

Jeffrey B. Lewis, Ph.D.

Kirstie M. McClure, Ph.D.

Raymond A. Rocco, Ph.D.

Andrew Sabir, Ph.D.

Michael F. Thies, Ph.D.

Lynn Vavreck-Lewis, Ph.D.

Brian D. Walker, Ph.D.

#### Assistant Professors

Lorrie A. Fassure, Ph.D.

Leslie N. Johns, Ph.D.

Robert Trager, Ph.D.

#### Adjunct Assistant Professor

James A. Desveaux, Ph.D.

#### Scope and Objectives

The undergraduate major in Political Science aims to provide understanding of basic political processes and institutions as these operate in different national and cultural contexts. It also covers the interaction between nation states, the changing character of the relations between citizens and governments, and the values and criteria by which the quality of political life is judged. The program may be individually focused to serve the needs of the liberal arts major, the student seeking preparation for graduate work in political science, public administration, law, and other professional fields, and the student preparing for specialized roles in political and public organizations.

The graduate program leads to the Ph.D. degree in Political Science (a master’s degree may be earned in the process of completing 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.

#### Political Science Premajor

All students intending to major in Political Science must enroll as Political Science premajors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

#### Preparation for the Major

Required: Four lower division courses from Political Science 10, 20, 30, 40, 50. Students must also take Political Science 6 or 6R. Statistics 10 or 12 may be substituted for course 6 or 6R.
Students must complete all premajor courses with a 2.0 grade-point average by the time they attain 135 units. Admission to the major is granted only after successful completion of all lower division requirements.

**Transfer Students**
Transfer applicants to the Political Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one statistics course and four courses from political theory, world politics, game theory, American politics, or comparative politics.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/admin_trg.htm](http://www.admissions.ucla.edu/prospect/admin_trg.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Ten upper division courses (40 units) selected from Political Science 104A through 199, each taken for a letter grade. Students are required to maintain a 2.0 overall grade-point average in all upper division political science courses.

Upper division political science courses are organized into six fields: (I) political theory, (II) international relations, (III) American politics, (IV) comparative politics, (V) methods and models, and (VI) race and ethnic politics.

In fulfilling the requirement of 10 upper division political science courses, students must satisfy the following:

1. A concentration in one field consisting of at least three upper division courses in that field
2. A distribution requirement of at least one upper division course on each of three different fields outside the field of concentration; multifield courses from the concentration field may not satisfy a distribution field
3. Four additional political science courses to comprise the total of 10

Courses 119, 139, 149, 169, and 179 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 191H, 195CE, 198, 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 (40 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.

**Honor Program**

The department honors program is open to seniors and to students who (1) have completed five upper division political science courses (two of which are in one field), (2) have a 3.5 grade-point average in upper division political science courses, and (3) are eligible for College of Letters and Science honors. Students should have substantial experience in writing research papers before they enter the honors program or course 191H.

Students wishing to qualify for graduation with departmental honors must complete courses 191H and 198, in which a senior thesis is written. Successful completion of the honors program is indicated on the transcript and diploma.

**Political Science Minor**

The Undergraduate Council of the UCLA Academic Senate voted to suspend admissions to the Political Science minor effective Winter Quarter 2012. Students currently in the minor are not affected by the admissions suspension.

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, 4269 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. At least three of the five courses must be taken in residence at UCLA.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa/library/pgmgrintro.htm](http://grad.ucla.edu/gasaa/library/pgmgrintro.htm). 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Political Science.

**Political Science**

**Lower Division Courses**

6. **Introduction to Data Analysis.** (5) Lecture, three or four hours; discussion, one hour (when scheduled). Not open for credit to students with credit for course 6R. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics. P/NP or letter grading.

10. **Introduction to Political Theory.** (5) Lecture, three hours; discussion, one hour. Exposure 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. **Politics and Strategy.** (5) Lecture, three or four hours; discussion, one hour (when scheduled). Introduction to study of strategic interaction in political applications. Use of game theory and other formal modeling strategies to understand politics. P/NP or letter grading.

40. **Introduction to American Politics.** (5) Lecture, three hours; discussion, one hour. Basic institutions and processes of democratic politics. Treatment of themes such as constitutionalism, representation, participation, and leadership coupled with particular emphasis on the American case. P/NP or letter grading.

50R. **Introduction to Comparative Politics — Research Version.** (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 6R. Not open for credit to students with credit for course 50R. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries. P/NP or letter grading.

50R. **Introduction to Comparative Politics — Research Version.** (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 6R. Not open for credit to students with credit for course 50R. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries, with emphasis on presentation and evaluation of qualitative evidence. P/NP or letter grading.

88A-88D. **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**

104A-104B. **Introduction to Survey Research.** (4-5) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: 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 attitude change. Participation in formulation of research problem. 104B. Requisite: course 104A. Conducting a survey. Development of survey questionnaire, designing a sample, collecting interview views, maintaining quality control, and coding interview views for machine tabulation. 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 M135.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparations: any lower division political science course. Enforced prerequisite: Economics 11. Designed for juniors/seniors. Analysis of methods and consequences of arriving at collective decisions through political mechanisms. Topics include free-rider problem, voting and majority choice, demand revelation, and political bargaining. P/NP or letter grading.
125A. Arms Control and International Security. (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.

125B. U.S. National Security Policy. (4) Same as Public Policy CM123.) Lecture, three hours; outside study, nine hours. Limited to juniors/seniors. Examination of U.S. national security challenges and how policymakers develop strategies to address them. Exploration of Cold War legacy, development of American national security doctrine, and U.S. foreign policymaking process from 1945 to present. Examination of broad spectrum of issues confronting today's foreign policy leaders, from threats to vital U.S. interests (WMD proliferation and terrorism), to regional security and economic challenges (Iraq, China), to humanitarian intervention and nation-building (Darfur, Afghanistan). Students draft analytic options memos and deliver oral presentations on how national security decisions are influenced by domestic and foreign factors in contemporary cases. Provides overview of current challenges and hones student analytic skills to examine these challenges from strategic policy perspective. Letter grading.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Theory and research on causes of war and conditions of peace.

127A-127B. Atlantic Area in World Politics. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Western Europe. External relations of United Kingdom, West Germany, France, Italy, and other European members of NATO, in regard to European security in context of the Atlantic Alliance. 127B. U.S. and Europe. Requisite: course 127A. 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) Three or four hours; discussion, one hour (when scheduled). Requisites: courses 20, 128A. Designed for juniors/seniors. Survey of foreign policy of post-Communist Russia, with special emphasis on Russia's relations with NATO, the former communist states of East Central Europe, China, and the Commonwealth of Independent States.

129. Diplomacy and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Analysis of role of diplomacy in great power politics, history of diplomatic institutions, advantages of public and private diplomacy, bilateral and multilateral settings, and theory and practice of terrorism and coercion. Use of game theoretic reasoning and historical analysis. Prior exposure to both useful but not required. P/NP or letter grading.

131. Latin American International Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Major problems of Latin American international relations and organization in recent decades.

132A-M132B. International Relations of Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/se- niors. P/NP. 132A. Requisite: course 20. Contemporary regional issues and conflicts, with particular attention to inter-Arab politics, Arab-Israeli problem, and Persian Gulf area. M132B. (Same as Honors CM132.) Lecture, three or four hours; discussion, one hour (when scheduled). Role of great powers in the Middle East, with emphasis on American, Soviet, and West European policies since 1945.
143A-143B-143C. Subnational Government. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.


146C. Government and Politics of Europe. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of theoretical frameworks for studying public and private bureaucracies, with emphasis on understanding the concepts of organization. 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 public and private bureaucracies, with emphasis on understanding the 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. Examination of complex process of policy development and implementation in the U.S., including roles of federal, state, and local agencies as well as nongovernmental organizations. Subtopics covered include 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 political 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. Examination of how 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.

147A-147B-147C. American Political Development. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and content of contemporary American politics. Possible periods include Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

147B. Period Inquiry. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and content of contemporary American politics. Possible periods include Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

147C. Institutional Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one American political institution and its development over time, or interaction of American politics and some aspect of culture and society. Assessment of broader political environment of politics, isolating points of contact, conflict, and pressure for change. Possible topics include party development, constitutional business regulation, and politics and religion. P/NP or letter grading.

149. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. 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. Also see course 117

Field IV: Comparative Politics

150. Political Violence. (4) (Formerly numbered 118) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one or several different uses of violence in revolutionary process: demonstrations, mass uprisings, coup d’état, assassination, and terrorism. P/NP or letter grading.

151A-151B-151C. African Politics. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Investigation of one or several different uses of violence in revolutionary process: demonstrations, mass uprisings, coup d’état, assassination, and terrorism. P/NP or letter grading.

151A. Government and Politics of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of governmental institutions and political development, with special attention to state/society relations, interaction of politics and economic development, political institutions, and conflict and conflict resolution. P/NP or 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. P/NP or 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 Western Europe. (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). Requisite: course 50. Designed for juniors/seniors. Comparison of constitutional and political structure of Western 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 polities, particularly relations between constitutional and political forces, and political institutions. Particular emphasis on study of three West European countries — United Kingdom, France, and Federal Republic of Germany. Examination of current developments 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 hour (when scheduled). Designed for juniors/seniors. Comparative study of governmental and political development, organization, and practice.
whether dictatorship or democracy prevails. Problems in the use (discourse) to talk or write about politics and political processes in selected post-Communist states, with emphasis on development of general theories of political and economic reform. P/NP or letter grading.

156. Post-Soviet States. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of institutions and political processes in selected former Soviet republics 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. Survey of institutions and political processes in selected former Soviet republics. P/NP or letter grading.

157. Government and Politics in the Middle East. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Survey of political environment in major Southeast Asian states. Use of comparative analysis to address major problems confronting region, including democratization, foreign 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. China in the Age of Mao. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of modern Chinese politics from decline of Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socioeconomic foundations and political dynamics of revolution in modern China.

159B. China in Age of Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of China's political and ideological transformation in post-Mao era. Assessment of impact of changing socioeconomic conditions on parties and programs of the Chinese Communist Party. Exploration of the Great Leap Forward and its consequences for China and for topics to be offered in specific term. P/NP or letter grading.

160. Government and Politics of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Japanese political system, with special attention to domestic political forces and problems.

163. Discourse, Dictatorship, and Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Interaction between how language is used (discourse) to talk or write about politics and whether dictatorship or democracy prevails. Problems of collective action in voting, protest, and oppression, contribution of shared identities to organizing collective action, role of discourse in cueing awareness of shared identity, evidence across time and space of association between variation in discursive discourse and transformation of dictatorship into democracy. Letter grading.

164. Comparative History of Government from Earliest Times to Present Day. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 50. Designed for juniors/seniors. Historical diversity of forms of government: archetypal great political entities, major innovations, notable variants. P/NP or letter grading.

165. Islam and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Religious and spiritual foundations of Islamic legal and political institutions; legitimacy of historical and contemporary Islamic regimes, movements, and ideologies; political strategies of Islamic activism. P/NP or letter grading.

166. Comparative Analysis of Government Institutions. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of institutional forms of government: archetypal great political entities, major innovations, notable variants. P/NP or letter grading.

167A. Ideology and Development in World Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). 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.

167B. Comparative Development and Administration. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of bureaucratic structures and function in the U.S., other industrialized, and less developed countries, primarily at national level. Special attention to methods of comparative analysis and utility of various methods. P/NP or letter grading.

167C. Political Economy of Development. (4) (Same as International Development Studies M100B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of conditions and processes that affect economic growth and others have not. Explanation and reason of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. May be applied toward either Field IV or V Letter grading.

167D. Political Institutions and Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Preparation: one statistics course. Designed for juniors/seniors. Data analytic approach to question of why some countries are rich and others are poor, with special attention to evidence about how governments and political institutions affect economic development. May be applied toward either Field IV or V Letter grading.

168. Comparative Political Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of institutions and political processes in selected post-Communist states, with emphasis on development of general theories of political and economic reform. P/NP or letter grading.

Field V: Methods and Models

170A. Studies in Statistical Analysis of Political Data. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of neoclassical regression and role of agents. P/NP or letter grading.

171A. Applied Formal Models: Collective Action and Social Movements. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/NP or letter grading.

171B. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Application of game-theoretic reasoning to common strategies and tactics in legislative settings. P/NP or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. Experiments explore hypotheses with emphasis on aspects of negotiation, including coalition formation, honesty, and role of agents. P/NP or letter grading.

172. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intermediate topics in game theory applied to political problems, with special attention to strategic consequences of incomplete information and information asymmetries. P/NP or letter grading.

Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (F) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended: course 30 or 6R. Designed for juniors/seniors. Intensive examination of one or more special problems related to methods and models in political science. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Field VII: Special Topics in Methods and Models

179. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive examination of one or more special problems related to methods and models in political science. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.
movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M180B. African American Freedom Narratives. (4) (Formerly numbered M114D.) (Same as Afro-American Studies M114D.) Lecture, three or four hours; discussion, one hour (when scheduled). Historical, psychological, and theoretical interpretation of selected narratives and storytelling in African American culture and politics. P/NP or letter grading.

M180C. Malcolm X and Black Liberation. (4) (Formerly numbered M114E.) (Same as Afro-American Studies M114E.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of black radicalism in mid-20th century, with special attention to contribution of Malcolm X and black nationalism to African American liberation movement. P/NP or letter grading.

181. Ethnic Politics: Chicano/Latino Politics. (4) (Formerly numbered 144A.) 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 differences 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 political practices, class and stratification systems, and cultural codes and modes of ideological discourse in each historical period. Letter grading.

M182. Ethnic Politics: African American Politics. (4) (Formerly numbered M144B.) (Same as Afro-American Studies M1144.) 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. Emphasis on dynamics of minority group politics in U.S., focusing on situations facing racial and ethnic groups, with black Americans being primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black community; (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

M183. Equal Rights and Unequal Education. (4) (Formerly numbered M114C.) (Same as Education M1186 and Public Policy M1186.) Lecture, four hours. Exploration of contradictions between American beliefs about equal opportunity and racial equality and inequities that result from education. Focus on black experiences in their communities; 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 political practices, class and stratification systems, and cultural codes and modes of ideological discourse in each historical period. Letter grading.

190. Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

190H. Honors Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students who have theses in seminar setting with one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member, P/NP grading.

191A-191E. Variable Topics Research Seminars for Juniors/Seniors. Three hours. Preparation: one upper division course in field in which seminar is offered. Limited to junior/senior Political Science majors with 3.25 grade-point average in upper division political science courses. Content and title of seminar will be announced each semester. Classes for topics to be offered in specific term. Reading, discussion, and development of culminating project. May be applied toward distribution or concentration requirement. May be repeated for credit. P/NP or letter grading.

191A. Political Theory; 191B. International Relations; 191C. Politics; 191D. Comparative Government; 191E. Methods and Models.

M191DC. CAPP Washington, DC, Research Seminars. (8) (Same as History M191DC and Sociology M191DCD) Seminar, three hours; laboratory, 24 hours. Limited to CAPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of quantitative methods and political science courses. Consult schedule of classes for topics to be offered in specific term. Examination of features of solid and significant research; intensive writing. Letter grading.

191H. Research Design Seminar for Honors Thesis. (4) Seminar, four hours. Preparation: one course in 191 series, 3.5-grade-point average in upper division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors thesis. Students define their research topic, select suitable research method, determine appropriate sources of information, prepare research proposal, find faculty advisor, research, and submit progress reports or preliminary drafts. Class sessions emphasize critical and constructive discussions of students’ topics, methods, and problems in research, as well as general consideration of political science research topics and methods of current or continuing interest. May be repeated for credit. Letter grading.

193. Journal Club Seminars: Political Science. (1) Seminar, two hours. Introduction to political science for undergraduate students. Discussion of readings selected from current literature of field. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Political Science. (2) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of research of faculty members or students. May be repeated for credit. P/NP grading.

M194DC. CAPP Washington, DC, Research Seminars. (4) (Same as History M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPP Quarter in Washington students and other students enrolled in UC Washington Center programs. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of quantitative methods, discrete choice models, time-series models. Corequisites: courses 200A, 200B. Corequisites: courses 200CL. Statistical modeling of political processes. Topics include simultaneous equations models, logit models, ordered choice models, time-series models. S/U or letter grading.

195. Community or Corporate Internships in Political Science. (1) Tutorial, to be arranged. Preparation: 3.0 overall grade-point average. Limited to juniors/seniors. Supervised jointly by Center for Community Learning and undergraduate study committee. Further supervision to be provided by organization for which student is doing internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 16 units. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; field-work, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator should coordinate this experience. May be repeated for credit with consent of Center for Community Learning. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. CAPP Washington, DC, Internships. (4) (Same as History M195DC and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior CAPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy’s program in Washington, DC-based field placements. Study of variety of quantitative methods and political science courses. Consult schedule of classes for topics to be offered in specific term. Examination of features of solid and significant research; intensive writing. Letter grading.

196. Honors Research in Political Science. (1 to 4) Tutorial, two hours. Preparation: course 191H. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

Formal Theory and Quantitative Methods


200CL. Statistical Methods Laboratory III. (4) Laboratory, three hours. Requisites: courses 200A, 200B. Corequisite: course 200C. Study of theory and application of linear regression analysis of political and social sciences. Starting with basic knowledge of probability theory and statistics, investigation of computation and interpretation of regression results, their statistical justifications, diagnostics for violations of assumptions, stability of results under perturbations of data and models, and extensions into nonstandard situations. Topics may include classical linear model, statistical inference and hypothesis testing, vector geometry of regression, diagnostics, weighted least squares, cross validation and model selection, resam-
Political Science

200D. Quantitative Methods in Politics. (4) Seminar, three hours. Preparation: knowledge of calculus and matrix algebra. Recommended requisite: course 200C. Designed to build on foundations set in course 200C. Focuses on mathematical and statistical structure underlying some statistical methods that are frequently used in political science. Emphasis on understanding structure of the models rather than on gaining added experience with data analysis. Applied to data. Letter grading.

200E. Advanced Topics in Quantitative Methods. (4) Seminar, three hours. Topics vary each year and have included instrumental variables principal components and scaling, models of selection, models of duopolies, rational choice, agenda control, choice-set or solution spaces, and applications to politics and political economy. Concept of rationality and ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other common-wealth problems. Preparation: knowledge of calculus and ability to solve statistical problems. Letter grading.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to encourage students to provide analytical tools without presupposing mathematical background. Model building, collective goods, unannounced consequences of the social contract, voting rules, paradoxes and implications of theories thereof. Social choice, interpersonal liberty, and decentralization; strategic manipulation representation, vote trading. Recommended preparation for political science, economics, philosophy, or mathematics students. S/U or letter grading.

201B. Theory of Collective Choice. (4) Seminar, three hours. Recommended preparation for political science students: course 201A. Open to any student of politics, economics, philosophy, or mathematics with ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other collective-choice processes. Axiomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) Discussion, three hours. Preparation: knowledge of elementary calculus. Introduction to mathematical techniques and survey of major topics in formal political economy. Investigation of models of regulation, trade protection, collective bargaining, and economic growth as time permits.

203B. Economic Theory and Methods for Political Science II. (4) 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.

204A. Game Theory in Politics I. (4) (Formerly numbered 204.) Seminar, three hours. Survey of game theory, with emphasis on utilizing mathematical models to understand political and economic phenomena. Topics concern political participation, public goods, policies, industrial regulation, bureaucratic behavior, interest groups, and party competition. Designed to help students become informed consumers of game-theoretical political science.

204B. Game Theory in Politics II. (4) Seminar, three hours; fieldwork, eight hours. Requisite: course 204A. Intermediate game theory course. Topics include games of information, cheap talk games, and bargaining theory. Applications concern political participation, public goods, legislatures, bureaucracies, conflict, and communication. Designed to help students use game theory in their research. S/U or letter grading.

204C. Game Theory in Politics III. (4) Seminar, three hours; fieldwork, eight hours. Requisites: courses 204A, 204B. Advanced game theory course, with emphasis on new and advanced techniques. Topics include timing games, stochastic games, and mechanism design. Applications concern bureaucracies, conflict mediation, and political transitions. Designed to help students use game theory in their research. S/U or letter grading.

206B. Topics in Applied Game Theory. (4) (Same as Economics M215.) Lecture, three hours. Preparation: Preparation: knowledge of calculus and matrix algebra. Designed for graduate economic and political science students. Survey and applications of major solution concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading.

208D. Multivariate Analysis with Latent Variables. (4) (Same as Psychology M257 and Statistics M242.) Lecture, three hours. Introduction to models 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 structur-eulated means factory analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and computer implementation. Applications. S/U or letter grading.

210A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to encourage students to provide analytical tools without presupposing mathematical background. Model building, collective goods, unannounced consequences of the social contract, voting rules, paradoxes and implications of theories thereof. Social choice, interpersonal liberty, and decentralization; strategic manipulation representation, vote trading. Recommended preparation for political science, economics, philosophy, or mathematics students. S/U or letter grading.

210B. Theory of Collective Choice. (4) Seminar, three hours. Recommended preparation for political science students: course 201A. Open to any student of politics, economics, philosophy, or mathematics with ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other collective-choice processes. Axiomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.

210C. Focus on logical and mathematical structure underlying some statistical methods that are frequent-ly used in political science. Emphasis on understanding structure of the models rather than on gaining added experience with data analysis. Applied to data. Letter grading.


212B. Seminar: International Relations. (4) Seminar, three hours. Intensive analysis of policy formulation and implementation of American foreign policy. S/U or letter grading.

214. Political Theory in Transnational Context. (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, Nuss-baum, etc.) in light of alternatives which have been proposed for the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

215. Liberalism and Its Critics. (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, Nussbaum, etc.) in light of alternatives which have been proposed for the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

220A. International Relations Core Seminar I. (4) Seminar, three hours. Introduction to international relations: main schools of thought, methods of analysis, and research styles. Letter grading.

220B. International Relations Core Seminar II. (4) Seminar, three hours. Further analysis of academic work in international relations and introduction to design of research project in this area. Letter grading.

220C. International Relations Research Seminar. (4) Seminar, three hours. Designed to help students choose a research topic. Letter grading.

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 negotiation. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.


226. Making of American Foreign Policy. (4) Seminar, three hours. Discussion of various approaches used to explain for-eign policy-making at individual, small group, bureaucratic, and domestic politics levels. Application to selected cases in American foreign policy.

231. International Political Economy I. (4) Seminar, three hours. Discussion of various theoretical approaches to international po-litical economy.

233A-233B-233C. Political Economy Workshops (4-4-4). Discussion, three hours. Survey of various theoretical approaches to international political economy.

234A-234B-234C. Workshops: National Security, Foreign Policy, and International Relations (0-0-0). Discussion, two hours. Preparation: successful completion of major field examinations. Workshops for students writing or preparing to write dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research paper of publishable length and quality required. S/U or letter grading.

234A-234B-234C. Workshops: National Security, Foreign Policy, and International Relations (0-0-0). Discussion, two hours. Preparation: successful completion of major field examinations. Course 234A is requisite to 234B, which is requisite to 234C. Courses must be taken in sequence. Workshops for students preparing for or working on dissertations. Reading and discussion of research in progress presented...
by UCLA faculty, visiting scholars, and advanced graduate students. Major research paper required. In Progress. S/U or letter (254C) grading.

239. Selected Topics in International Relations. (4) Seminar, three hours. S/U or letter grading.

Comparative Politics

240A-240B. Seminars: Comparative Politics. (4-4) Seminar, three hours. Course 240A is not required to 240B. Letter grading. 240A. Survey of ideas and approaches that have been historically important in field of comparative politics, with selection of theories and methodologies that have comprised field over time. 240B. Survey of contemporary research approaches and problems in field of comparative politics, with a range of theories and methodologies used by practitioners in the field.


244. Latin American Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Latin American politics. S/U or letter grading.

245. Middle Eastern Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Middle Eastern politics. S/U or letter grading.

246A. Western European Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Western European politics. S/U or letter grading.

246B. Political Development of Modern Europe. (4) Seminar, three hours. Examination of political development from high feudalism to the present, together with theories of causation.


247A. Evolution of Soviet and Russian Politics. (4) Seminar, three hours; discussion; one hour (when scheduled). Discussion seminar surveying political evolution of Soviet Union and its transformation.

247B. Domestic Context of Russian Foreign Policy. (4) Seminar, three hours. Examination of domestic social, political, bureaucratic, and organizational sources of Russian foreign and strategic policy. S/U or letter grading.


251. Political Economy of Economic Reform. (4) Discussion, three hours. Some familiarity with economic history helpful. Principal political and economic arguments for and against economic reform and consideration of political issues that arise from this process. Letter grading.

252. Parties and Party Systems. (4) Seminar, three hours; discussion, one hour (when scheduled). Theories and practices of political parties, party systems, and elections in comparative perspective.

253. Political Change in Communist Systems. (4) Discussion, three hours. Examination of political content and consequences of structural reform in Communist systems and problems in post-Leninist political pluralization and convergence.

254A-254B. Institutions and Comparative Politics. (4-4) Seminar, three hours; discussion, one hour (when scheduled): 254A. Comparative Institutional Analysis. (4) Seminar, three hours; discussion, one hour (when scheduled). Use of advances of rational choice theory and new institutionalism to examine major institutional structures, including presidentialism vs. parliamentaryism, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and plurality vs. proportional electoral systems. 254B. Political Institutions, Delegation, and Policy-Making. (4) Seminar, three hours; discussion, one hour (when scheduled). Analysis of political foundations of policy-making. Characterization of democratic institutions as a series of delegations, from voters to elected officials, within parties and legislatures, and from elected politicians to unelected bureaucrats. Examination of implications of different institutional designs for how those delegations are made and controlled.

255. Seminar: Political Economy of Developing Countries. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization. S/U or letter grading.

256. External Sources of Domestic Politics. (4) Discussion, three hours. Theoretical and historical studies of impact of war and trade on domestic cleavages, policy, and institutions. S/U or letter grading.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics. S/U or letter grading.

258. Comparative Politics Proseminar. (2) Seminar, 90 minutes. Biweekly speaker series featuring top political scientists, policy analysts, government officials, and industrialists.


American Politics


M261A. Proseminar: Political Psychology. (4) Seminar, three hours; discussion. Introduction to political psychology. S/U or letter grading.

M261B. Political Psychology: Mass Communication and Everyday Opinion. (4) Seminar, three hours; discussion. Examination of implications of different institutional designs for how those delegations are made and controlled.

261A. Mass Attitudes and Political Behavior. (4) Seminar, three hours. Requisite: course 261B or Political Psychology M261B. Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

261B. Critical Problems in Political Psychology. (4) (Same as Psychology M226C) Seminar, discussion, three hours. S/U or letter grading.

262. Political Parties. (4) Seminar, three hours. Critical examination of literature on party systems and organizations. Special attention to political functions of party cadres, electoral campaigns, and party policies. S/U or letter grading.


266. Group Theories of Politics. (4) Discussion, three hours. Critical appraisal of “group theory” approaches to study of political decision making, with special attention to empirical research problems and findings. S/U or letter grading.


M268B. Electoral Democracy: Theory and Behavior. (4) (Same as Public Policy M246.) Seminar, three hours. Examination of both empirical and normative questions from rich variety of perspectives for scholars in all subfields of political science as well as policy students and others interested in these issues. Consideration of topics fundamental to both democratic theory and study of American political culture; nature and purpose of elections; representation; parties; and purpose of democracy as whole — through both classic political theory treatments and modern research in American political behavior. Letter grading.


270. Legislative Behavior. (4) Seminar, three hours. Analysis of major approaches to study of representatives, with special emphasis on assumptions, concepts, methods, and theoretical implications associated with each approach. S/U or letter grading.

271. Executive Politics and Presidency. (4) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American Presidency. Special attention to theories of organization and personality and relationship between executive and other institutions and groups. S/U or letter grading.


273. American Political Development. (4) Discussion, three hours. National political institutions in historical perspective; theories of state building, state-society relations, political decision making.


284. Seminar: Bureaucracy and Organization. (4) Seminar, three hours. Exploration of theories of public and private bureaucracies and organization behavior. Topics include empirical theories of bureaucratic behavior; bureaucratic growth; bureaucratic behavior and political culture; organizational structures and strategies; and function of executive. S/U or letter grading.

Race, Ethnicity, and Politics

M287A-M287B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4-4) (Same as Sociology M299A-M299B, Public Policy M287A-M287B, and Sociology M290A-M290B.) Seminar, four hours. Examination of metropolitan American society and institutions at beginning of 21st century. Consideration of best available information on patterns of settlement, changing functions of urban space and in-
Situations, and issues of opportunity linked to urban structure in society facing unprecedented demographic challenges. "The rise of economic inequality in our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization of workplace and dramatic decline of industrial employment in advanced nations, may greatly raise stakes on creating equal opportunity but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M287A) and letter (M287B) grading.

289A. Approaches to Study of Race, Ethnicity, and Politics. (4) Seminar, three hours. Analysis of alternative theoretical, methodological, and empirical approaches to study of race, ethnicity, and politics. S/U or letter grading.

289B. Current Research on Race, Ethnicity, and Politics. (4) Seminar, three hours. Exploration of current research on race, ethnicity, and politics. S/U or letter grading.

Special Studies

290. Modern Political Economy. (4) Discussion, three hours. Discussion of implications for understanding politics of thinking of politicians, bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macromodels, forms of political participation, state, government regulation, growth of government, bureaucracy elections, public policy, inflation, S/U or letter grading.

M291A-M291B. Social Theory and Comparative History. (4-4) Same as History M203A-M203B and Sociology M296A-M296B. Seminar, three and one-half hours every other week. Introduction to historically rooted social theory and theoretically sensitive history, following program of Center for Social Theory and Comparative History. Each course may be taken independently for credit. S/U or letter grading.

292A-292B. Introduction to Political Inquiry. (4-4) Seminar, three hours; discussion, one hour (when scheduled). S/U or letter grading.


293. Great Ideas in Social Sciences. (2) Seminar, two hours. Vehicle for faculty and visitors to teach research seminars of variable length. Special training opportunities are advanced quantitative methods, including complexity theory, agent-based modeling, experimental economics, social cognitive neuroscience, and evolutionary psychology, to be offered at irregular intervals. May be repeated for credit. S/U grading.

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

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 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.

597. Preparation for Ph.D. Qualifying Examination. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.


PSYCHIATRY AND BIOBEHAVIORAL SCIENCES

David Geffen School of Medicine

UCLA
38-216 Semel Institute
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Peter C. Whybrow, M.D., Executive Chair
Fawzy I. Fawzy, M.D., Executive Vice Chair
Alex J. Kopolowicz, M.D., Vice Chair
Ira M. Lesser, M.D., Vice Chair
James T. McCracken, M.D., Vice Chair
Robert T. Rubin, M.D., Ph.D., Vice Chair
Thomas B. Strom, M.D., Vice Chair
Tai P. Yoo, M.D., Vice Chair
Michael S. Levine, Ph.D., Associate Chair, Academic Affairs

Professors

Lori L. Althuler, M.D., in Residence (Julia S. Gouw Professor of Mood Disorders)
Donna Ames, M.D., in Residence
Joan R. Asarnow, Ph.D., in Residence
Robert F. Asarnow, Ph.D., in Residence (Della Martin Professor of Psychiatry)
George Bartzokis, M.D., in Residence
Michaele A. Basso, Ph.D., in Residence
Thomas R. Belin, Ph.D.
Robert M. Bilder, Ph.D., in Residence (Michael E. Tennenbaum Family Endowed Professor of Creativity Research)
Gene D. Block, Ph.D., Chancellor
Sally M. Blowar, Ph.D., in Residence
Susan Y. Boekelheide, Ph.D., in Residence (Joaquin M. Fuster Professor of Cognitive Neurosurgery)
James R. Boulter, Ph.D., in Residence
Joel T. Braslowsky, M.D., Ph.D., in Residence (Frances M. O'Malley Administrative Professor of Neuroscience History)
Arthur L. Brody, M.D., in Residence (Richard Metzner Endowed Professor of Clinical Neuropharmacology)
Carole H. Browner, Ph.D., in Residence
Alexander Buxtsitky, M.D., Ph.D., in Residence
Anthony T. Campagnoni, Ph.D., in Residence (Vincent and Stella Coates Professor of Molecular Neurobiology)
Tyrone D. Cannon, Ph.D. (Staglin Family Professor of Psychology)
Rita M. Cantor, Ph.D., in Residence
Ellen M. Carpenter, Ph.D., in Residence
Bruce F. Chorpita, Ph.D.
Mark S. Cohen, Ph.D., in Residence
Robert M. Cohen, M.D., Ph.D., in Residence
Christopher S. Colwell, Ph.D., in Residence
Ian D. Cocke, M.D., in Residence
Michaelle G. Craske, Ph.D.
Mirella Dapretto, Ph.D., in Residence
Jean S. de Vellis, Ph.D., in Residence (Dr. George Tarjan Professor of Psychopathology and Retardation)
Jerome Engel, M.D., Ph.D.
Christopher J. Evans, Ph.D., in Residence (Stefan Hatos Endowed Professor of Psychiatry and Biobehavioral Sciences)
Michael S. Fasselow, Ph.D.
David J. Farabey, Ph.D., in Residence
Kym F. Faul, Ph.D., in Residence
Fawzy I. Fawzy, M.D. (Dr. Louis Jolyon West Professor of Psychiatry)
Robin S. Fisher, Ph.D., in Residence
L. Jaime Fitten, M.D., in Residence
Frederick D. Frankel, Ph.D., in Residence
Neil B. Freimer, M.D., in Residence (Maggie G. Gilbert Endowed Professor of Bipolar Disorders)
Itzhak Fried, M.D., Ph.D., in Residence
Andrew J. Fults, Ph.D., in Residence
Thomas R. Garrick, M.D., in Residence
Daniel H. Geschwind, M.D., Ph.D., in Residence (Gordon and Virginia MacDonald Distinguished Professor of Human Genetics)
Michael F. Green, Ph.D., in Residence
Christine E. Grella, Ph.D., in Residence
Constance L. Hammond, Ph.D.
Charles H. Hinkin, Ph.D., in Residence
Yih-Iing Hser, Ph.D., in Residence
Marco Iacoboni, M.D., Ph.D., in Residence
Michael R. Irwin, M.D., in Residence (Norman Cousins Endowed Professor of Psychoneuroimmunology)
J. David Jentsch, Ph.D.
Scott P. Johnson, Ph.D.
Bruce L. Kagan, M.D., Ph.D., in Residence
Connie L. Kasari, Ph.D.
Alex J. Kopolowicz, M.D., in Residence
Harley L. Kornblum, M.D., Ph.D., in Residence
Helen Lavretsky, M.D., in Residence
Ira M. Lesser, M.D.
Andrew F. Leuchter, M.D.
Michael S. Levine, Ph.D., in Residence (Gail Patrick Endowed Administrative Professor of Brain Research)
Jennifer G. Levitt, M.D., in Residence
Li Li, Ph.D., in Residence
Matthew D. Lieberman, Ph.D.
Walter Ling, M.D., in Residence
Edward T. London, Ph.D., in Residence (Thomas P. and Katherine K. Pike Professor of Addictive Studies)
Nigel T. Maidment, Ph.D., in Residence
Stephen R. Marder, M.D., Ph.D.
Kelsey C. Martin, M.D., Ph.D., in Residence
Gary W. Mathern, M.D., in Residence
Emran Mayer, M.D.
James T. McCracken, M.D. (Joseph Campbell Professor of Child Psychiatry)
Mario F. Mendez, M.D., in Residence
David J. Miklowitz, Ph.D., in Residence
Norweeta G. Milburn, Ph.D.
Jeanne Miranda, Ph.D., in Residence
Claudia I. Mitchell-Kernan, Ph.D.
Alison A. Moore, Ph.D., in Residence
Shorey F. Neufeld, M.D., in Residence
Keith H. Nuechterlein, Ph.D., in Residence
Roel A. Ophoff, Ph.D., in Residence
Alexander N. Ortega, M.P.H., Ph.D.
Christina G.S. Palmer, Ph.D., in Residence
Robert N. Pechnick, Ph.D., in Residence
John C. Placentini, Ph.D., in Residence
Robert S. Pynoos, M.D., in Residence
Richard A. Rawson, Ph.D., in Residence
Mary Jane Rotheram-Borus, Ph.D., in Residence (Dena Bat-Yakov Endowed Professor of Childhood Psychiatry and Biobehavioral Sciences)
Robert T. Rubin, M.D., Ph.D., in Residence
Arnold B. Scheibel, M.D.
Steven J. Shoptaw, Ph.D.
Jerome M. Siegel, Ph.D., in Residence
Alcino J. Silva, Ph.D.
Gary W. Small, M.D. (Albert F. and David H. Parlow-Salomon Professor of UCLA Program on Aging)
Annette L. Stanton, Ph.D.
Michael A. Strober, Ph.D., in Residence (Franklin Mint Professor of Eating Disorders)
Margaret L. Shuber, M.D. (Dr. Daniel X. Freedman Administrative Professor of Academic Psychiatry)
David L. Sultzter, M.D., in Residence
Yi E. Sun, Ph.D., in Residence
M. Albert Thomas, Ph.D., in Residence
Paul M. Thompson, Ph.D., in Residence
Guochuan E. Tsai, M.D., Ph.D., in Residence
M. Belinda Tucker, Ph.D., in Residence
James A. Waschek, Ph.D., in Residence
Scope and Objectives

The Department of Psychiatry and Biobehavioral Sciences offers interdisciplinary courses related to the mental health professions of the biobehavioral sciences in addition to its programs for psychiatry interns and residents 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.

Clinical Psychology Internship

The department offers a 12-month Clinical Psychology Internship. Students enrolled in clinical psychology doctoral programs at APA-approved universities are eligible to apply. Applications are accepted through November 1. The primary goals of the internship are to provide a year of intensive exposure to a wide variety of clinical settings, both inpatient and outpatient, and to maximize the personal growth of each professional. Students interested in this certificate program should contact David Crawford, 38-232 Semel Institute, (310) 794-5715, e-mail: dcrawford@mednet.ucla.edu, or see http://www.ssemel.ucla.edu/psychology/internship/.

Information on clinical practicums that are offered in conjunction with other educational institutions and UCLA departments may be obtained from the department office.

Psychiatry and Biobehavioral Sciences

Upper Division Courses

175. Mindfulness Practice and Theory. (4) Seminar, five hours. Designed for beginners; prior experience with meditation not required. Introduction to mindfulness, including basic mindfulness meditation practices, both sitting and moving, ways to develop positive emotions like gratitude, kindness, and joy, and methods for integrating more awareness and creativity into ordinary activities. Examination of various meditative traditions as well as emerging scientific evidence on beneficial effects of mindfulness practice for mental and physical health. Beneficial effects include reduced stress, improved attention, reduced emotional reactivity, and greater mind-body awareness. Learning and development of practical skills of relational mindfulness in interactions with others. Offered in summer only. P/NP or letter grading.

M180. Contemporary Problems in Developmental Disabilities. (4) (Same as Psychology M180.) Seminar, three hours. Corequisite: course M181A. Limited to Developmental Disabilities Program students. Examination of broad spectrum of issues related to mental retardation, intelligence and IQ, genetics, neurobehavioral, and other developmental disabilities. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181; Neuroscience M130; Physiological Science M180A or Psychology M171A; or Physiological Science 111A or Psychology 115). Underlying brain systems involved in psychiatric symptoms and neurological disorders, including schizophrenia, depression, bipolar disorder, obsessive-compulsive disorder. Provides basic understanding of brain dysfunctions that contribute to disorders and rational for pharmaceutical treatments. P/NP or letter grading.

M181A. Research in Contemporary Problems in Developmental Disabilities. (4) (Same as Psychology M181A.) Lecture, one hour; laboratory, eight hours. Corequisite: course M180. Limited to Developmental Disabilities Program students. Research experience. In Progress grading (credit to be given only on completion of course M181B).


182. Personal Brain Management. (4) Seminar, four hours. Basic overview of brain function and consideration of some management methods that exist already, and what future may hold. New methods for predicting our own futures and modeling what if scenarios that might alter risks and benefits of different courses of action, based on individual genetic background and other elements of personal history and environmental exposures. Introduction to key principles from science of behavior change, illustrating how important health-related habits are and how difficult these can be to change and why. Coverage of series of topics that center on personal enhancement of well-being through consideration of stress management, long-term goal and value identification, mapping of long-term goals onto immediate actions, reinforcement learning, meditation, neurofeedback, and time management. Critical appraisal of help applicants linguistically validated procedures. Offered in summer only. Letter grading.

197. Individual Studies in Psychiatry. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Asigned reading and tangible evidence of mastery of subject matter required. May be taken for letter grade only. May be repeated for credit. Individual contract required. Additional information and contract forms are available in Office of Education, 38-216 Semel Institute. P/NP or letter grading.

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

Graduate Courses

M210. Editorial Board Apprenticeship. (2) (Same as Health Policy and Management M249Q.) Seminar, two hours. Designed for postdoctoral fellows and advanced Ph.D. students. Participation in peer review process for academic journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editor on suitability for full review. S/U or letter grading.


M222. Transcultural Psychiatry. (4) (Same as Anthropology M234P.) 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 psychiathies, and questions of "sick" societies. May be repeated for credit.


M230. Communication of Science. (2) (Same as Biomathematics 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, and appendices. Communication with lay public. S/U or letter grading.

M232. Causal Inference. (4) (Same as Biostatistics M235S.) Lecture, three hours; discussion, one hour. Requisite: Biostatistics 200A. Selection bias, confounding, ecological paradoxes, contributions of Fisher and Neyman. Rubin model for causal inference, propensity scores. Analysis of clinical trials with noncompliance. Addressing confounding in longitudinal stud-
ies. Path analysis, structural equation, and graphical models. Decision making when causality is disputed. Letter grading.

M234. Affective Disorders. (2 or 4) (Same as Psychology M280.) Seminar, two hours. General topics related to primary affective disorders (depression, manic depressive illness), including diagnosis, pharmacology, epidemiology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to make a presentation or prepare a research paper. Letter grading.


237. Seminar: Behavioral Neuroimmunology. (1) Seminar, one hour per month; discussion, 30 minutes per month. Series of lectures presented the second Wednesday of each month throughout academic year by invited speakers. S/U grading.

M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychology M238.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M240. Assessment and Treatment of African American Families (Same as Africana Studies M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with African American children and families. Letter grading.


245. 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 (law, religion, welfare systems). S/U or letter grading.

253. Seminar: Child Development. (1) Theories of development, systems of child development, and chronological aspects of child development. Presentation of assigned readings by students plays major role in each session.


259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one-half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philosophies, ethics, ethical codes, issues, and how to resolve them. Use of videotapes and discussion of cases.


M263. Clinical Pharmacology. (2) (Same as Bio-mathematics 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 current therapeutics, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

264. Health and Mental Health Disparities from Psychosocial and Cultural Perspectives. (4) Seminar, three hours. Designed for graduate and medical students, resident physicians, and juniors/seniors (with consent of instructor) interested in learning about general, sexual, and mental health disparities. Survey course to introduce students to health disparities that exist for ethnic minorities and factors that may contribute to disproportionate prevalence rates. Review and discussion of research literature, with focus on specific diseases such as HIV/AIDS, substance abuse, depression, and breast and prostate cancer. Discussion of myths and myths about healthcare of ethnic populations. Examination of psychosocial and cultural contexts as potential or contributing factors. S/U or letter grading.

M266. Advanced Seminar: 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 (MRI), with emphasis on developing advanced applications. Instruction 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 phenomena of memory arise. Discussion of brain regions in memory, cortical conditioning, hippocampal 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 cultural 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 M263G, Community Health Sciences 273A, and Anthropology 273.) 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.


M280. Politics of Reproduction. (2 to 4) (Same as Anthropology M268P.) Seminar, three hours. Examination of various ways that power as it is structured and enacted in everyday activities, shapes human reproductive behavior, and effects not only reproductive health but also cultural processes. Illuminates relationships between science, cultural, and sociopolitical dynamics. S/U grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Biomeulear Imaging M284.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.


287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Presentation of brief therapeutic interventions for adults and children at risk for suicide, depression, conduct problems, and HIV, with didactic and experiential techniques.

M288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Community Health Sciences M284.) Lecture, four hours. Requis-ites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of major social and behavioral factors in the 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 interventional techniques to reduce HIV/AIDS transmission. Review of the theory and research supporting efficacy of HIV intervention for a variety of high-risk populations. Letter grading.
290. Los Angeles HIV-Community Colloquia. (1) Lecture, two hours. Examination of emerging scientif-
ic HIV-related research, discussion of policy issues, theories, and designs of HIV-related services and pro-
grams and shifting epidemiology of the virus and dis-
ease. S/U grading.

291. Functional Magnetic Resonance Imaging and Experimental Studies of Con
sciousness Journal Club. (1) Seminar, two hours; discussion, three hours. Opportunity for stu-
dents to gain better appreciation of experimental neu-
romaging methods and challenges in experimenta-
tion of human and animal cognitive processes. Read-
ings of journal articles (selected by students and in-
structor) addressing topics of functional magnetic
resonance imaging and experimental studies of con-
sciousness Journal Club. (1)

292. Functional Neuroanatomy for Neuropsychol-
ogists. (2) Lecture, two hours. Preparation: graduate-
level neuroanatomy course. Designed for neuropsy-
chology and radiology postdoctoral fellows and neuro-
science graduate students. Human functional anat-
omy from systems perspective, integrating results from
lesions to measurement in functional neuroimaging. Potentially oriented students learn to identify gyri and major sulci on MR im-
ages and memorize associated Brodmann's region.
Letter grading.

294. Seminar of Clinical Investigation. (2) Le-
ture, two hours; discussion, two hours. Designed for
graduate students. Introduction to initial steps in clini-
cal research through preparation of research propos-
al. Small working groups develop grant proposal on
specific topic. S/U grading.

295A-295B-295C. Substantive Issues in Sub-
stance Abuse I, II, III. (2-2-2) Seminar, two hours;
discussion, one hour. S/U grading.

295A. (2) Seminar, two hours; discussion, one hour. Neurology of drug and pharmacology of drug abuse, as well as epidemiology and prevention. Dis-
cussion of pros and cons of various treatment modal-

295B. (2) Seminar, two hours; discussion, one hour. Drug use patterns and treatment issues in specific
populations such as women, adolescents, homeless, multiply diagnosed, as well as different ethnic popu-

295C. (2) Seminar, two hours; discussion, one hour. Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of drug abuse re-
sources. Training in developing, evaluation and analysis issues perti-
nent to drug abuse research. S/U grading.

296. Research Group Seminar: Practicum. (1) Re-
search group meeting, three hours. Designed for
postdoctoral and graduate students who plan to con-
duct research studies. Coverage of (1) publishing pro-
cess — submitting manuscripts to journals, selecting
appropriate journals, frequent reasons for journal re-
jection of manuscripts, and key points in writing arti-
cles for publication, (2) overview of National Institutes
of Health (NIH), including organization structure and mis-
tion, grant application processes, funding mecha-
nisms, and review process, (3) preparing/submitting
grants to NIH, including review of components of successful applications, criteria by which applications are judged, and what to emphasize in each section, (4) grant mechanisms specifically des-
igned for (1) human subjects, (5) human subject pro-
cession for grant applications and IRB issues, and (6)
preparation of budgets (modular and detailed) and bud-
get justification for NIH submissions. S/U or letter grading.

402. Journal Club. (1) Seminar, two hours; outside
study, two hours. Presentation of participants' current
research. Critical review of recent articles on drug
abuse. Training sessions included in areas in which fe-
tative training they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Prepara-
tion: submission of written proposal to be structured
by instructor and student prior to enrollment; addition-
al information and proposal forms available in Office
of Education, 38-216 Semel Institute. One-to-one su-
pervisory intervention, therapy cases, including analy-
ses of patient therapy cases, supervision of ongoing treatment, educational interventions, and
applications to patient management. S/U or letter grading.

405. Trauma and Sexual Abuse Research Seminar. (4) Seminar, one hour. De-
signed for graduate and medical students and resi-
dent physicians interested in learning about biobehav-
ioral trauma research. Introduction to DSM-IV TR di-
gnosics criteria, traumatic stress disorder (PTSD), as well as biopsychosocial sequelae. Exami-
nation and discussion of child and adult sexual abuse in context of being causative precursors of acute and chronic trauma. Presentation by experts on PTSD, among other biologic variables, within context of phys-
iological markers for PTSD. Review of current modes of treatment, including therapeutic and pharmacologi-
cal interventions. Discussion of research methods, particularly important for trauma research. S/U or let-
ter grading.

407A-407B-407C. Clinical Hypnosis Seminars, (2-
2-2) (Formerly numbered 207A-207B-207C.) Semi-
inars for the current term in the areas of biobehavioral stress and therapy, (2) clinical hypnosis, (2)
clinical hypnosis, (2) clinical hypnosis, (2) clinical hypnosis, (2) clinical hypnosis. For graduate
students only. S/U grading.

407A. (2) Cultural and historical context for hypnosis: development of technical com-
petence in trance induction, deepening, management, and re-alerting; and gaining familiarity with trance ex-
periences. 407B. Fundamentals of trance utilization, including basic trance mechanism, and instructing
and facilitating exploratory trance experiences. 407C. Application of hypnogenic interventions in clinical situations and with specific populations.

424A. Functional Magnetic Resonance Imaging
Journal Club. (2) Same as Biomedical Physics M424.) Discussion, 90 minutes. Limited to 10 stu-
dents. Current topics in functional neuroimaging, with
emphasis on novel applications, analysis, and acqui-
sition methods. Presentation and critique of student
papers. Overall emphasis on magnetic resonance im-
ageing. Example areas include tractography through
diffusion tensor imaging, diffusion tensor-related experi-
mental designs, parallel receiver MRI imaging, inte-
grated electrophysiological and image acquisition.
S/U grading.

425. Teaching Case Conference. (1) Review of di-
ageon and treatment of full spectrum of disorders, with expert off-unit consultants. S/U or letter grading.

429. Child Outpatient Team. (1) Weekly team meet-
ings to coordinate clinical activities of trainees in Child Outpatient Department. Discussion of literature and theories related to selected cases. S/U grading.

431A-431B-431C. Pediatric Neuropsychology: As-
seessment, Diagnosis, and Treatment Planning, (1-
1-1) Seminar, one hour. Presentation of didactics on
developmental disorders, pediatric syndromes, and
acquired brain injury in children. Coverage of meth-
ods of assessment in children, with focus on neuro-
psychological testing. Presentation of differential diag-
nosis and treatment planning. S/U grading. 431A. De-
velopmental disorders, including autism, Asperger's,
mental retardation, specific learning disabilities, and
Attention Deficit/Hyperactivity Disorder. Current con-
ceptualizations of these disorders used to form as-
sessment techniques, including choice of instruments and interpretation of results. Practical issues in pedi-
atric neuropsychology, including ethics, educational laws, and interdisciplinary interventions. 431B. Neu-
developmental disorders, head injury, low birth
weight, tumors, and epilepsy. 431C. Implementation of research from previous two terms in case presenta-
tion format, supplemented with various guest speak-
ers.
PSYCHOLOGY
College of Letters and Science

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Adjunct Professors
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Dennis J. McGinty, Ph.D.
Jill M. Waterman, Ph.D.
Dahlia Zaidel, Ph.D.

Adjunct Associate Professor
Iris Firstenberg, Ph.D.

Scope and Objectives
Psychology is a subject of considerable interest to most people — we all tend to practice some form of intuitive psychology in an attempt to understand ourselves and the people and groups with whom we interact. The curriculum offered by the UCLA Department of Psychology presents psychology as a scientific discipline that employs systematic methods of inquiry to study and explain human and animal behavior — both normal and abnormal — in terms of a variety of underlying variables, including neural, physiological, and cognitive processes; developmental factors and individual differences; and social and interpersonal influences and contexts. According to recent surveys, the UCLA Psychology Department is ranked as one of the top departments in the country.

The undergraduate curriculum has been designed to reflect the extensive breadth of psychology — both the range of behavioral phenomena studied and the variety of methods and theoretical approaches employed — while allowing students to pursue in greater depth those areas of research and theory that interest and satisfy them most. Beyond basic core courses, students can take many specialized courses in areas such as behavioral neuroscience, animal behavior, learning and memory, motivation, perception, cognition, measurement, personality, and clinical, social, developmental, community, and health psychology. The curriculum also provides excellent opportunities for research experience — either in the form of laboratory courses or by participation with faculty members and graduate students in a wide variety of research projects.

A choice of three undergraduate majors is offered: a 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 provide 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 the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, developmental, health, learning and behavior, social, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and professional psychologists.

Undergraduate Study
The Cognitive Science major is a designated capstone major. Students are required to produce a paper based on each term of their experience in a research laboratory or approved fieldwork site. Through completion of the capstone experience students are expected to identify a research topic and hypothesis to be tested or a fieldwork project and goals, show that they can organize and integrate information related to the topic or project in a clear manner in their own words, demonstrate ability to find and utilize supporting literature relevant to their project or topic, and successfully relate...
the paper to their experience in the laboratory or fieldwork setting.

**Psychology 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.

**Psychology Premajor**

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology premajor. Psychology premajors can petition to declare the Psychology major once they have (1) satisfied all the preparation for the major requirements and (2) are accepted into the major through a competitive application process (for students who entered UCLA as freshmen) or file a petition to declare the Psychology major for students who entered UCLA as transfers.

**Preparation for the Major**

Each of the following required courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses): Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A or Physics 10 or 1A or 6A; one course from Computer Science 2, Mathematics 2, Program in Computing 10A, Computer Science Theory, or Computer Engineering 10A, Statistics 10, or one term of calculus; one course from Philosophy 1, 2, 3, 4, 5, 6, 7, 8, 9, 21, 22, 22W, 31; Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B are only open to students who have declared the Psychology premajor before the term in which they plan to enroll. It is recommended that students with no background in introductory statistics take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

**Freshman Students**

Students may declare the Psychology premajor once they have established a 2.5 grade-point average in at least one preparation for the major course.

Students must petition to declare the Psychology major and can do so once they complete all seven preparation for the major courses and submit an application to enter the major by the end of the Fall Quarter of their third year at UCLA. Admission into the major is based on student academic performance in the preparation courses. Students who have a grade-point average of 2.9 or higher in the preparation coursework and have met all other Psychology premajor requirements are guaranteed entrance into the major after they submit the application by the above deadline. Students with a grade-point average between 2.5 and 2.89 in the preparation coursework enter a competitive application process and are admitted only if there is space available in the major. Students with a grade-point average below 2.5 in the preparation coursework are not eligible to apply for admission to the major.

**Transfer Students**

Transfer applicants to the Psychology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course equivalent to Life Sciences 1 or 15 or Physiological Science 3, one general chemistry or general physics course, one philosophy course, one introduction to psychology course, and one course from statistics (recommended), finite mathematics, calculus, computer science theory, or computer programming in C++.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

**The Major**

Required: (1) Five core courses, at least two from each category: (a) Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, and (b) 127A or 127B or 127C, 130 (or one course from 133A through 133I or 131), 135, 150; (2) one laboratory/fieldwork course from 101, 111, 116, 121, 126, 131, 136A, 136B, 136C, 151, 186A through 186D; (3) four additional upper division elective courses (16 units) in psychology.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper division psychology electives. All three courses must be completed to receive psychology elective credit.

Each upper division course must be taken for a letter grade. A C– or better is required in each core course and in at least one laboratory/fieldwork course. Students must have a 2.0 grade-point average in all upper division courses selected to satisfy major requirements.

**Cognitive Science B.S.**

**Capstone Major**

The Cognitive Science major focuses on the study of intelligent systems, both real and artificial. While including a strong foundation in the traditional areas of psychology, the major is interdisciplinary in nature and emphasizes subject matter within cognitive psychology, computer science, mathematics, and related disciplines.

The requirements described below include sufficient preparation if students plan to pursue graduate work in cognitive science or related fields; however, they may want to include additional advanced courses in psychology and fields related to cognitive science (e.g., computer science, linguistics, mathematics, philosophy, and statistics) as well as other types of research and fieldwork experiences. 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.

**Cognitive Science Premajor**

Students need to file a petition in the Undergraduate Advising Office to declare the Cognitive Science premajor. They are then identified as Cognitive Science premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Cognitive Science major. Questions about the major should be directed to the Undergraduate Advising Office, 1531 Franz Hall.

**Preparation for the Major**

Each of the following required courses must be taken for a letter grade (C or better in each course and a 2.5 overall grade-point average in the preparation courses) before students reach 140 total units: Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A or Physics 10 or 1A or 6A; Mathematics 31A, 31B; Philosophy 7 or 8 or 9; Program in Computing 10A, 10B, and one course from 15 or 20 or 40A; Psychology 10, 85, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Cognitive Science premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

**Transfer Students**

Transfer applicants to the Cognitive Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course, one general chemistry or general physics course, two calculus/analytical geometry courses, one general physics course, one philosophy course, one in-
Psychobiology B.S.

The Psychobiology major is designed for students who plan to go on to postgraduate work in physiological psychology, neuroscience, behavioral aspects of biology, or the health sciences. Psychobiology involves the study of brain-behavior relations and laboratory training. Psychobiology involves the study of behavioral aspects of biology, or the health sciences. Psychology requires the study of 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 information, contact the Undergraduate Advising Office, 1531 Franz Hall.

Psychobiology Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychobiology premajor. They are then identified as Psychobiology premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychobiology major.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4, 23L; 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 Psychobiology premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Each core curriculum course must be taken for a letter grade (C– or better in each course and a 2.0 overall grade-point average in the core curriculum) before students reach 150 total units. Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

Transfer Students

Transfer applicants to the Psychobiology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, one introduction to psychology course, one psychological statistics course, and one psychology research methods course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Required: (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118 or Anthropology 128A and 128B, and Psychology 110, 115 (or M117A, M117B, M117C, M119A through M119X, M152, 160, 161, 162, 186D, 191CH (only if content is approved by the Undergraduate Advising Office), Chemistry and Biochemistry 153A, 153L, Computational and Systems Biology M187, Ecology and Evolutionary Biology 100, 102, 105, 106, 110, 111, 115, 117, C119, 120, 121, 122, 124 (only 4 units may be applied toward the major), 129, 135, 164, 170, Microbiology, Immunology, and Molecular Genetics 185A, Molecular, Cell, and Developmental Biology 100, 104, 138, M140, CM156, Neurosciences 102, Physiological Science C144, 146, 147, M148, 166, 173.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper division psychobiology electives. All three courses must be completed to receive psychobiology elective credit.

Students must have a 2.0 grade-point average in all upper division courses selected to satisfy major requirements, and each must be taken for a letter grade.

Honors

Honors Courses

Each year the department offers a selection of honors courses, designated with an H suffix. The courses provide close contact with faculty members, emphasize readings in the original literature, student reports, and small group discussions, and may include field or research experience. 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 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply. 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.

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, 40A, or 60, and (3) completing at least three courses from Psychology 85, 121, 142H, 186A through 186D (one 199 course may be substituted for one of these courses provided project has been approved by vice chair). A grade of C or better is required in each course. Students graduate with a bachelor's degree in their major and a specialization in Computing. Students planning to enter this specialization should 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 undergraduate students how to apply theories, research methods, and research findings to practical concerns, and (3) prepare students to join or receive further training in various child-related professions.

The minor is open to all enrolled UCLA students (including Cognitive Science, Psychobiology, and Psychology majors) who have an overall grade-point average of 2.0 or better and have 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, 1615 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 134A (must be taken concurrently with course 134D), 134B (must be taken concurrently with course 134E), and four additional courses from Education 120, 121, 132, Psychology 127C, 129F, 130, 131, 132A, 132B, 133B through 133L, 134F, 134G, 134I, 161, 199A or 199B (content must be approved by the Undergraduate Advising Office), Sociology M174. One of the four additional courses must include either Psychology 130 or one course from 133B through 133L.

Internship Requirement/Fieldwork Component (8 units): Psychology 134C, 144D (must be taken concurrently with course 134A), 134E (must be taken concurrently with course 134B). Students work as interns for three consecutive academic terms at an approved daycare center/school. The internship provides hands-on experience working with young children as teacher's aides and opportunities for observing children.

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

No more than two courses may be applied toward both this minor and a major in another department or program.

Each minor course, except for the fieldwork component of the internship courses, must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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, Neuroscience 102, Psychology 115, 116, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Physiological Science M180C), 119B, 119C, 119F, M119L, M119N, 160, 161; (2) computation and modeling cluster — three courses from Biomatics 108, Computer Science 161, Psychology 186A through 186D; (3) human cognition cluster — Psychology 121 and two courses from 120A or 120B, 124A through 124J, 133B, 133C, 133E; (4) mind and language cluster — three courses from Linguistics 120A, 120B, 120C, 130, 132, C135, 185A, Philosophy 124, 125, 126, 127A, 127B, 129, 170, 172, Psychology 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.

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

No more than two courses may be applied toward both this minor and a major in another department or program.

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

Fieldwork and Research Opportunities

Many research and fieldwork opportunities are open to students who wish to expand their knowledge and broaden their background in the field of psychology. These experiences can be enriching and help bring undergraduate students closer to understanding the importance of research and internships, including their applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 99, 185, 192, 193, 194A through 194D, 195A, 195B, 196A, 196B, 199A, or 199B. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward the undergraduate degree. Information about these courses and programs is available from the Undergraduate Advising Office, 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, 8 units of course 199 may be applied toward the Psychology 195B/196B requirement for the Cognitive Science major and 4 units of course 199B may be applied toward the elective course requirements for the Psychology major.

Psychology Research Opportunity Programs

The Psychology Research Opportunity Programs (PROPS) represent a vital effort to identify and mentor underrepresented minority and/or low-income students. The purpose of PROPS is to encourage such students to participate in research and pursue graduate studies leading to careers in academia. The recruitment and application process for PROPS takes place each Fall Quarter. Students selected to participate are awarded stipends for Winter and Spring Quarters, during which time they do research under the mentorship of a psychology faculty member. In addition, students are required to attend weekly seminars covering such topics as graduate school, careers in academia, and research opportunities in various fields of psychology. Prior research experience is not required. This is an excellent opportunity for students to begin their research careers and acquire the needed experience to pursue advanced studies.
Infant Development Program
The Megan E. Daly Infant Development Program (IDP), established in May 1983, is designed as a teaching and research facility for the department and is set up to accommodate both cross-sectional and longitudinal investigation of infants, toddlers, their families, and caregivers. In addition, the program provides an opportunity for undergraduate students in developmental psychology and other areas to acquire firsthand experience working with infants and toddlers on an individual basis or in a group setting. The program has two primary functions: (1) to offer quality group care for infants and toddlers of the students, staff, and faculty of the Psychology Department and other UCLA departments and (2) to serve as a teaching and research facility for the Psychology Department and the UCLA community. The program has two locations and accommodates children from three months to three years old.

UCLA Psychology Clinic
The UCLA Psychology Clinic in the Department of Psychology is a major training center for students in the clinical psychology Ph.D. program, one of the top-ranked programs in the country. It provides a broad range of psychological services to children and adults, including assessment and individual, couples, family, and group therapy. Clients cover the entire age range and represent diverse populations in the community. Student therapists receive very close supervision and utilize research-based cutting-edge psychological interventions. Students and faculty members are also involved in a variety of research projects through the clinic.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website: http://grad.ucla.edu/lab/library/gmqrintro.htm. 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.), Candidate in Philosophy (C.Phil.), 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 and a grade of C or better required of all departmental premajors. 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. Enrolled requisite: 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) Seminar, three hours. Enrolled requisite: course 10. Study of selected topics in psychology at introductory level; seminar format designed for freshmen/sophomores. P/NP or letter grading.

Upper Division Courses
100A. Psychological Statistics. (4) Lecture, four hours. Requisites: course 10 with a grade of C or better, and one course from Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus. Calculus 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. Enrolled requisites: courses 10 and 100A, with grades of C or better. Introduction to research methods and critical analysis in psychology. Lecture and laboratory topics include experimental and nonexperimental research methods, statistical design and analysis as applied to a broad range of basic and applied research issues. P/NP or letter grading.

101. General Psychology Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, 115. Laboratory 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, 100B. Fundamentals of psychological learning, with emphasis 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, acquired motivation, and drug addiction. Evaluation of evidence obtained in laboratory studies conducted with animals. P/NP or letter grading.

112B. Psychology 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 fromintroductory 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. Psychology of Anxiety and Depression. (4) Lecture, two and one-half hours; discussion, 30 minutes. Requisites: courses 10 and 115. Designed for juniors/seniors. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112D. Animal Cognition. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Recommended for juniors/seniors. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A, Life Sciences 2 or 15. Not open to students with credit for course M117A. Designed for juniors/seniors. Nervous system anatomy, physiology, pharmacology, and their relationship to behavior. P/NP or letter grading.

116. Behavioral Neuroscience Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 115A or 116A. Laboratory work in cellular neurophysiology and psychology majors. Laboratory experience with various topics in behavioral neuroscience. P/NP or letter grading.


M117A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrent-ly), Life Sciences 2, Physics 1B or 1BH or 6B or 6BH. Not open for credit to students with credit for Physiological Science 111A. For Psychological Science majors only, a grade of C– or better is required to proceed to Physiological Science M111A, and to Cellular and Systems Neuroscience M101A or Physiological Science M100A or Physiological Science M111A, Life Sciences 3, 4 (4 may be taken concurrently). Molecular biology of channels and receptors: focus on voltage-gated channels and neurotransmitter receptors. Molecular biology of

M117C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisite: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Physiological Science M180A) or Physiological Science 111A. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

M117J. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Bio- 


M119. Neuropsychopharmacology. (4) Lecture, three hours. Requisite: course 115. Designed for ju-

M119L. Human Neuropsychopharmacology. (4) (Same as Neuroscience M119L.) Lecture, three hours. Re- 


M119O. Psychology of Aging. (4) (Same as Gerontol- ogy M119O.) Requisite: course 115. Designed for juniors/seniors. Exploration of the relationship between ag-

M120A or 120B. Designed for juniors/seniors. Recent re- 

M120B. Sensation and Perception. (4) Lecture, three hours. Requisite: courses 10, 100A, 120A or 120B. Designed for Psychology and Cognitive Science majors. Laboratory experiment with methods and phenomena from research on human perception, memory, and cognition. P/NP or letter grading.

M124A. Advanced Topics in Sensation and Percep- 

M124B. Visual Information Processing. (4) Lecture, two hours; discussion, one hour. Requisite: courses 10, 100A, 120A or 120B. Investigation of the role of visual information in memory, perception, attention, and decision-making processes. P/NP or letter grading.

M124C. Human Memory. (4) Lecture, two hours; dis-

M124D. Principles of Human Performance. (4) Des- 

M124E. Language and Cognition. (4) Lecture, three 

M124F. Thinking. (4) Lecture, three hours. Requisite: 

M124G. Cognitive Aging. (4) Lecture, 90 minutes; dis-

M124H. Psychological Decision Making. (4) Requisite: 

M124I. Psychology of Attention and Performance. (4) 

M124J. Principles of Human Cognition. (4) Lecture, three 

M124K. Principles of Human Cognition. (4) Lecture, three 

M124L. Principles of Human Cognition. (4) Lecture, three 

M124M. Principles of Human Cognition. (4) Lecture, three 

M124N. Principles of Human Cognition. (4) Lecture, three 

M124O. Principles of Human Cognition. (4) Lecture, three 

M124P. Principles of Human Cognition. (4) Lecture, three 

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M124Y. Principles of Human Cognition. (4) Lecture, three 

M124Z. Principles of Human Cognition. (4) Lecture, three 

M125A. Principles of Human Cognition. (4) Lecture, three 

M125B. Principles of Human Cognition. (4) Lecture, three 

M125C. Principles of Human Cognition. (4) Lecture, three 

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M127Y. Principles of Human Cognition. (4) Lecture, three 

M127Z. Principles of Human Cognition. (4) Lecture, three 

P/NP or letter grading.

M129. Behavioral and Cognitive Neuroscience. (4) Lecture, three 

P/NP or letter grading.


121A. Personality Measurement. (4) Lecture, three hours. Requisites: courses 10, 100A. Rationale, methods, and content of studies dealing with personality; assessment of personality through self-report and personality inventories. P/NP or letter grading.

121B. Introduction to Psychoanalysis. (4) Lecture, three hours. Requisites: courses 10, 100A. Development of Freud's ideas from 1895 to 1926, with emphasis on how his theory evolved from a drive-based reinforcer model to a structural theory in which unconscious fantasy plays a crucial role. Coverage of developments beyond Freud, especially work of the British school under leadership of Klein, Winnicot, and Fairbairn. P/NP or letter grading.

121C. Culture and Mental Health. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A. Introduction to study of culture and human behavior in general, and culture and mental health in particular. Emphasis on cultural groups that comprise major U.S. ethnic groups (i.e., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/NP or letter grading.

121D. Personal Psychology. (4) Lecture, three hours. Requisites: course 10. Survey of major topics in the field of personal psychology, including personality type, personality assessment, and physiological, behavioral, and cultural role of personality, learning, and motivation in personality. P/NP or letter grading.


121F. Clinical Psychology of Childhood and Adolescence. (4) Lecture, three hours. Requisite: course 127A or 127B or 127C. Survey of child and adolescent psychopathology and psychotherapy from a Developmental perspective. Coverage includes such conditions as anxiety disorders, depression, conduct and attentional problems, eating disorders, and autism, with information on prevalence, causes, common treatments and their effects. P/NP or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Elaboration of developmental aspects of physical, mental, social, and emotional growth from birth to adolescence. P/NP or letter grading.

131. Research in Developmental Psychology. (4) Discussion, one hour; laboratory; three hours. Requisites: courses 10, 100A, and 130A or 130B. Continuing fieldwork in advanced applications of developmental psychology to contemporary issues. Topics include general instructional issues, psychology of respect and morality in the early childhood education, and education of the disadvantaged. P/NP or letter grading.

132G. Culture and Human Development. (4) Lecture, three hours. Discussion, one hour. Requisites: courses 10, 100A. Role of culture in human development through psychology, anthropology, and autobiography. Students read material from lectures and readings, through empirical research projects, to develop cultural background on child development, and in the broader community. P/NP or letter grading.

133I. Applied Developmental Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to study of language development. Topics include first and second language acquisition (sounds, meanings, grammatical structures), learning mechanisms, communication skills, and relation between language and thought in children. P/NP or letter grading.

133D. Social and Personality Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Theory and research on social and personality development during childhood. Topics include parent/child attachment, temperamental expression, sex-typing, self-concept, moral reasoning and behavior, social status and social skills, and peer group relations. P/NP or letter grading.

133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and development of human perceptual abilities, origins of knowledge about functionally important aspects of the environment, ecological and computational issues in perception, research and theory about initial perceptual capacities, and some sensory foundations. P/NP or letter grading.

133F. Psychology and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Discussions of principles of cognitive, learning, and perception to educational problems. Topics include general instructional issues, psychology of respect and mathematics, and social and emotional development of children and their families. Topics include quality of child care, patterns and ranges of normal child behaviors, developmental disabilities, health, education, and public policy issues, child-rearing practices. P/NP or letter grading.

134A. Applied Developmental Psychology: Infant/Toddler Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychologists with children under age three. Topics include physical, cognitive, social, and emotional development of children, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134B. Applied Developmental Psychology: Preschool/School-Age Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children three to eight years. Topics include cognitive, social, and emotional development of children, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134C. Advanced Applied Developmental Psychology. (4) Seminar, one hour; fieldwork, eight hours. Requisites: courses 134A, 134B, 134D, 134E. Designed for Applied Developmental Psychology minors. Continuing fieldwork in advanced applications of developmental psychology, focusing on human behavior in a school setting with a strong emphasis on the development and implementation of responsive environments and therapeutic interventions.
developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP grading.

134D. Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134A. Designed for Applied Developmental Psychology minors. Fieldwork in applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP grading.

134E. Advanced Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134A. Designed for Applied Developmental Psychology minors. Fieldwork in advanced applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP grading.

134F. Infant Care and Development. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 138B through 133I, one statistics course. In-depth study of research methods, current research findings, and theories used to understand infant development from conception through second year of life, including cross-cultural application of this knowledge. P/NP or P/NT grading.

134G. Early Childhood Curriculum. (4) Lecture, three hours. Requisites: courses 10, one course from 130 or 133B through 133I, one statistics course. Examination of a range of current materials, and philosophy that enhance development of children in context of childcare settings. Topics include issues of multiculturalism, antibias curriculum, and special needs adaptations. P/NP or letter grading.

134L. Child, Family, and Community. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Exploration of role of early childhood educators within context of childhood, economic, and cultural backgrounds and impact of these dynamics on children’s development. P/NP or letter grading.

135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Interrelationships between the individual and his social environment. Social influences on motivation, perception, and behavior. Development and change of attitudes and opinions. Psychological analysis of small groups, social stratification, and mass phenomena. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonexperimental methods for study of social attitudes or behavior, including fieldwork with survey research, naturalistic observation, or questionnaires. P/NP or letter grading.

136C. Survey Methods in Psychology. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Survey research in psychology, with particular emphasis on surveys of social and political attitudes. Actual experience in systematic survey research such as that done by media polling agencies, market research companies, and academic survey research centers. Topics include survey design, sampling, interviewing techniques, response rates, questionnaire design, data coding, and analysis. Training in telephone interviewing techniques in laboratories. P/NP or letter grading.

137A. Sport Psychology. (4) Lecture, three hours. Designed for junior/senior Psychology majors. Introduction to field of sport psychology. Coverage of research and applied aspects of a range of topics, including youth sport participants as well as world-class performers.

M137E. Nonverbal Communication and Body Language. (4) (Same as Communication Studies M113.) Lecture, three hours. Examination of how various forms of nonverbal communication convey meaningful information in a variety of settings. Focus on both production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinematics), with strong emphasis on body language. Requisite: from variety of related fields. P/NP or letter grading.

137C. Intimate Relationships. (4) Lecture three hours. Requisites: courses 10, 100A. Limited to juniors/seniors. Not open for credit to students with credit for former course 137B. Introduction to how social scientists think about, study, and treat intimate relationships, with emphasis on understanding how relationships change over time. Topics include attraction, relationship formation, conflict resolution, social support, sex, role of individual differences, and external circumstances. P/NP or letter grading.

M137E. Work Behavior of Women and Men. (4) (Same as Gender Studies M137E.) Lecture, two and one hour. Requisites: courses 10, 100A. Designed for nonmajors. Exploration of work behavior of women and men. Topics include antecedents of job choice, job findings, leadership, performance evaluation, work and life satisfaction, and job interdependence and family roles. P/NP or letter grading.

137F. Introduction to Sport Psychology. (4) Lecture, three hours. Designed for juniors/seniors. Survey of topics in sport psychology, including leadership and team dynamics, moral development and aggression, personality, motivation, fan behavior, and performance enhancement. Consideration of youth sport through world-class athletics. P/NP or letter grading.

137I. Interpersonal Influence and Social Power. (4) Lecture, three hours. Requisite: course 135. Theories and research focusing on how people influence one another and resist such influence, and on the bases of social power. Motivations and effects of influence for the powerholder and target of influence. Applications to such problems and issues as power and leadership in organizations, interpersonal influence and health, power relationships in the family, interpersonal influence in everyday life, social power of political figures.

M138. Electoral Politics: Political Psychology. (4) (Same as Political Science M141A.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 10. Designed for juniors/seniors. Examination of political behavior, political socialization, personality, and politics, racial conflict, and psychological analysis of public opinion on these issues. P/NP or letter grading.

M139. Perspectives on Autism and Neurodiversity. (4) (Same as Disability Studies M139.) Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural phenomenon from its historical roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material sourced from various fields and disciplines invested in autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and cultural studies. A thorough understanding of multiple perspectives on autism and putting them in conversation with one another. Attention paid to how people on spectrum define, explain, and represent their own existence. A discussion of what ramifications of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

M140. Introduction to Studying of Aging. (4) (Same as Social Welfare M140.) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging — biological, social, psychological, and humanistic. Introduction to information on range of influences on aging and prepare students for subsequent specialization. P/NP or letter grading.

142H. Advanced Statistical Methods in Psychol- ogy (Honors). (4) Lecture, three hours; laboratory, two hours. Requisites: courses 100A, 100B. Survey of statistical techniques commonly used in psychology, education, and behavioral and social sciences: corre- lational techniques, analysis variance, and multiple regression. P/NP or letter grading.


M147A. Psychology of Lesbian Experience. (4) (Same as Gender Studies M147A and Lesbian, Gay, Bisexual, and Transgender Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: grade 10 or Gender Studies 10 or Lesbian, Gay, Bisexual, and Transgender Studies M114. Designed for juniors/seniors. Review of research and theory in gender studies and psychology to provide a sociocultural context for the experiences and perspectives of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society, changes in policies and trends about lesbians in sociocultural context. P/NP or letter grading.

150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10. Not open for credit to students with credit for former course 137D. Areas of health, illness, and delivery of treatment that can be elucidated by understanding of psychological concepts and research, psychological processes or these processes, how psychological perspective might be enlarged and extended in medical area. P/NP or letter grading.

151. Research Methods in Health Psychology. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Not open for credit to students with credit for former course 136D. Research methods used in health psychology, including experimental, quasi-experimental, and nonequivalent control group research. Examples of research in health psychology. P/NP or letter grading.

152. Mind-Body Interactions and Health. (4) Lecture, three hours. Designed for junior/senior Psychology and Psychobiology majors. Examination of bidirectional interactions between mind and body and how these interactions influence health. Topics include impact of stress, emotions, personality, and social world on biological systems and health. Discussion of mind-body interventions designed to reduce stress and improve health. Original scientific research on yoga and meditation. P/NP or letter grading.

160. Genetics of Human Cognition and Behavior. (4) Lecture, three hours. Requisites: courses 10 and, or 127A or 127B or 127C. Limited to juniors/seniors. Survey of field of behavior genetics, including methods for determining genetic and environmental influences and for locating and characterizing genes impacting these traits, as well as current knowledge of genetic contributions to cognition and behavior and disorders thereof. P/NP or letter grading.


M163. Death, Suicide, and Trauma. (4) (Same as Sociology M138.) Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent death. Suicide is eight leading cause of death in U.S.
M180. Contemporary Problems in Developmental Disabilities. (4) (Same as Psychiatry M180.) Seminar, three hours. Corequisite: course M181A. Limited to Developmental Disabilities Program students. Examination of broad spectrum of issues related to mental retardation, intelligence and IQ, genetics, neurobiology, and other developmental disabilities. P/NP or letter grading.

M181A. Research in Contemporary Problems in Developmental Disabilities. (4) (Same as Psychiatry M181A) Lecture, one hour; laboratory, eight hours. Corequisite: course M180. Limited to Developmental Disabilities Program students. Research experience. In Progress grading (credit to be given only on completion of course M181B).


184A-184B. Psychology Research Opportunity Program Seminars. (2-2) Seminar, 90 minutes. Designed to bring together Psychology Research Opportunity Program (PROPS) students undertaking supervised research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

185. Research Practicum in Psychology. (3) Laboratory, seven hours. Corequisite: course C194D. Limited to juniors/seniors. Practical applications of psychological research through understanding guidance of faculty mentor. Prerequisite: 12 units; courses 185, 194, 195, and 196 may be applied toward undergraduate major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Laboratory, four hours. Corequisites: courses 10, 85, 100A, 100B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, learning, reasoning, and problem solving). Types of models include algebraic symbolic models. Lectures and discussions interwoven with computer simulations written in Matlab. P/NP or letter grading.


186C. Cognitive Science Laboratory: Psychophysical Theories and Methods. (4) Laboratory, four hours; laboratory, two hours. Corequisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that examine psychophysical theories and methods (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. Laboratory in Functional Neuroimaging. (4) Laboratory, four hours. Enforced corequisites: courses 10, 100A, 100B. Limited to departmental majors. Introduction to study of brain with functional resonance imaging (fMRI). An emphasis is placed on understanding the physical basis of MR signal to data analysis. Letter grading.

187A. Psychology and Law. (4) Lecture, two hours; discussion, two hours. Designed for juniors/seniors. Study of new topics on legal psychology, including substance identification, capital punishment, forensics, and prejudiced procedures. Outside speakers utilized in presentation of these materials. Students participate in presentations and/or discussions.

187B. Advanced Psychology and Law. (4) Lecture, three hours; discussion, one hour. Requisite: course 187A. Designed for juniors/seniors. Study of additional topics on legal psychology, including gang violence, theories of crime, corrections, repeat offenders, community policing, and interrogation. Outside speakers utilized in presentation of these materials. P/NP or letter grading.

187C. Sex and Law. (4) Lecture, three hours. Limited to juniors/seniors. Examination of constitutional foundation for sexual rights in America, with focus on free-dom of speech and press, right to privacy, and Ninth Amendment rights reserved by the people. P/NP or letter grading.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/senior. Departmentally-sponsored experimental or temporary seminars on selected topics in psychology, such as those taught by visiting faculty members. Requisite: M180. Limited to development of culminating project. May be repeated for credit. P/NP or letter grading.

188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for juniors/senior. Departmentally-sponsored experimental or temporary courses on topics of psychological interest, such as those taught by visiting faculty members. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

190. Research Colloquia in Psychology. (1) Seminar, one hour. Designed to bring together students undertaking supervised research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

191. Variable Topics Research Seminars: Psychology. (1) Seminar, one hour. Limited to juniors/seniors. Research seminar on selected topics in psychology. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP grading.

191A-H-191BH-191CH. Departmental Honors Research Seminars. (2-2-2) Seminar, two hours. Enforced corequisite: course 196. Course 191AH is required, course 191CH is required. Limited to psychology honors program students. Opportunities for development and analysis of creative ideas through individual research projects with faculty sponsor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Office, courses 191CH and 198 may be applied toward elective course requirement for any Psychology Department major. Letter grading.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduates to assist in college and university psychology. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. Only 12 units of education practice and department sponsored temporary seminars on topics of psychological interest, such as those taught by visiting faculty members. Consult Schedule of Classes for topics and instructors. May be applied toward undergraduate major. May not be applied toward undergraduate major. May not be applied toward upper credit requirement for any Psychology Department major. Individual contract required. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Office, courses 191CH and 198 may be applied toward elective course requirement for any Psychology Department major. Letter grading.

193. Journal Club Seminars: Psychology. (1) Seminar, one hour. Limited to juniors/seniors. Discussion of readings selected from current literature of particular field of attendance and at write-ups of speakers series. May be repeated for credit. P/NP grading.

and third leading cause for young people aged 15 to 24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting the individual's mental health state. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as age, gender, race, sexual orientation, and socioeconomic status. For someone viewing this sociological argument and evaluation of explanatory potential of different theories to make sense of violent deaths, attention to forensic and mediaic system to determine suicide and solve homicides. Review of historic and contemporary studies to examine how research and conceptualizations of suicide and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.

M165. Psychology of Gender. (4) (Same as Gender Studies M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and personality differences between men and women, in roles, and achievement, and impact of gender on social interaction. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as Afro-American Studies M172 and Gender Studies M172.) Lecture, three hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of Afro-American women as members of large society and as members of the biologic and ethnic group. P/NP or letter grading.

173. Advanced Abnormal Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Examination of research and theory concerning etiology, cause, and outcomes of disorders. Behavior. Focus on continuity and change in patterns of behavior, assessment methods, and research approaches. Concentration on one of following: childhood disorders, anxiety and stress, schizophrenia, or mood disorders. P/NP or letter grading.

175. Community Psychology. (4) Designed for junior/senior Psychology majors. Application of psychological principles to understanding and solution of community problems. Topics include community development, community mental health problems, drugs, racism, and rehabilitation of prisoners.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Designed for junior/senior Psychology majors. Conceptual and empirical foundations of psychological counseling; comparison of various kinds 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, experimental findings supporting the theories, and history of study of motivation. Topics include social, sex, conflict, aspiration level, achievement strivings, and causal attributions.

194A. Internship Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 195A. Study of research design and current literature through group discussion, presentation, and papers. Research fields and topics vary by instructor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. Individual contract required for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194B. Research Group Seminars: Psychology. (1) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to juniors/seniors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194C. Research Group Seminars: Cognitive Science. (1) Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors. Part of research group discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

C194D. Research Group Seminars: Practicum. (1) (Formerly numbered 194D.) Seminar, one hour. Corequisite: course 191AH or 191BH or 191CH. Limited to juniors/seniors and psychology honors program students. Development and completion of honors thesis or comprehensive seminar project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

199A. Senior Thesis in Psychology. (2) Tutorial, eight hours. Corequisite: course 191AH or 191BH or 191CH. Limited to juniors/seniors and psychology honors program students. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

199B. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4-unit 199 course may be taken per term. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

Graduate Courses


200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning and application of learning principles to goal-directed action, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.


201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Preparation: at least two years of graduate work. May be applied toward course requirements for Cognitive Science major. Individual contract with supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

202. Research in Learning and Behavior. (2) Forum in which graduate students discuss the literature and methodological, analytical, and interpretational issues related to the study of research in learning and behavior. S/U grading.

204A. Basic Motivational Processes. (4) Lecture, three hours. Designed for graduate students. Analysis of the effects of basic motivated behavior such as feeding, drinking, foraging, and reproduction. Same approach also applied to phenomena such as acquired motivation, reinforcement, and drug addiction. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U or letter grading.

204B. Theories of Learning. (4) Discussion, three hours. Preparation: course 200A. Critical discussion and in-depth analysis of current major theoretical approaches to associative learning, with emphasis on recent experimental analyses of conditioning phenomena.

204C. Evaluative Processes. (4) Lecture, three hours. Designed for graduate psychology students. Lectures and discussion on current research in application of learning principles to clinical and social problems such as alcohol and drug abuse, aggression, fear, management, memory, and behavioral medicine, autism/schizophrenia, etc. S/U or letter grading.

204D. Fear and Anxiety. (4) Lecture, three hours. Preparation: graduate training. Presentation of theoretical and empirical advances, from biological and behavioral perspectives, in the area of fear and anxiety. Integration of animal and human research.

205A. Cortical Plasticity and Perceptual Learning. (4) Lecture, three hours. Preparation: graduate training. Presentation of basic principles of corticothalamic plasticity and computational models of cortical processing. Letter grading.

205B. Human Neurophysiology. (2) Lecture, three hours. Designed for graduate students. Examination of higher cognitive processes in terms of neural mechanisms that underlie them. Topics include cortical modularity and organization, coordinated sensory representation, language, regional functional specialization, attention, and regulation of cortical function by extracortical systems. Letter grading.

205C. Neurotransmitters in Human Disorders of Motor and Cognitive Function. (2) Lecture, three hours. Designed for graduate students. Detailed analysis of mechanisms involved in interneuronal communication, processes (i.e., neurotransmitters, 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 dementia. Letter grading.

205D. Clinical Psychopharmacology. (2) Lecture, three hours. Preparation: graduate training. General principles of brain neurotransmitters, including synthesis, cell bodies and pathways, and receptor subtypes. General principles of drug administration and pharmacokinetics. Major classes of psychoactive drugs, animal models, and "atypical" compounds. Letter grading.

205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of engrams. Cell biology of plasticity, in-
including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to mediate particular processes are discussed. Letter grading.

205G. Behavior Genetics. (2) Lecture, three hours. Designed for graduate students. In-depth analysis of field of behavior genetics, including methods for determining genetic and environmental influences and for locating and characterizing genes impacting these traits, as well as current knowledge of genetic contributions to cognition and behavior and disorders thereof. Letter grading.

205K. Vision Neurobiology. (2) Lecture, three hours. Designed for graduate students. Exploration of anatomy, physiology, and computation in visual system, focusing on retina, visual cortex, and overall performance. Letter grading.

205L. Cognitive Neuroscience. (2) Lecture, three hours. Designed for graduate students. Overview of neural basis of higher cognitive functions, integrating anatomical, physiological, and behavioral approaches and incorporating clinical and experimental data. Systems covered include attention, perception, memory, language, and hemispheric specialization. Letter grading.


M208. Biology of Learning and Memory. (4) Same as Molecular, Cellular, and Integrative Physiology M200G, Neurobiology M200G, and 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.


212. Evaluation of Research Literature in Physiological Psychology. (1) Discussion, 90 minutes. Papers of current interest presented by members of seminar and their significance and methodology discussed and criticized in depth. May be repeated for credit. S/U grading.


215A. Health Psychology. (4) Lecture, three hours. Preparation: undergraduate degree or training in psychology. Psychosocial factors related to etiology of illness, treatment and course of illness, long-term care and adjustment of chronically ill or disabled, and practice of institutional healthcare and self-care. Letter grading.

215B. Human Physiology in Social and Behavioral Science. (4) Lecture, three hours. Limited to graduate students. Designed to provide students with understanding of basic anatomy and activities of biological systems that relate psychological factors to health, and interconnections between these systems. Letter grading.

216A. Psychology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of adjustment to chronic illness and current research on these determinants, prevalence of psychological disorder in populations with chronic illness, evidence based psychosocial interventions for individuals with chronic illness, and terminal illness and end-of-life care. Readings and discussion across disciplines (e.g., cardiovascular diseases, cancer, AIDS, rheumatic conditions, diabetes). Letter grading.

216B. Psychoneuroimmunology. (4) Seminar, three hours. Limited to graduate students. Introduction to field of psychoneuroimmunology to train students to develop conceptual and methodological skills necessary for interpreting research in this area. Letter grading.

216C. Psychology of Women's Health. (4) Seminar, three hours. Limited to graduate students. Examination of theoretical and empirical advances in psychology of women's health. Socioenvironmental context of women's health, stress and depression in women, psychological aspects of gynecological health, major causes, morbidity and mortality for women, and women's health-related behaviors. Letter grading.

216D. Psychology of Aging and Health. (4) Seminar, three hours. Limited to graduate students. Discussion of theory and research on biological, emotional, and social, and behavioral processes that link childhood family social environments to long-term mental and physical health. Letter grading.

216F. Families, Emotions, and Health. (4) Seminar, three hours. Limited to graduate students. Discussion of theory and research on emotional, social, and behavioral processes that link childhood family social environments to long-term mental and physical health. Letter 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. Research Methods in Social Psychology. (4) Lecture, three hours. Limited to graduate students. Research design and methodological issues in experimental and nonexperimental social research.

220C. Advanced Social Psychology. (4) Lecture, three hours. Requisites: course 220A or 220D. Review of contemporary topics and issues in social psychological research and theory.

220D. Introduction to Social Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to 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). Lecture and research seminar on major theoretical and methodological issues within domain of intergroup relations research. Approaches not simply restricted to research within psychology but across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

222C. Psychology of Intergroup Relations. (4) Lecture, three hours. Designed for graduate students. In-depth and comprehensive approach to major theoretical and methodological issues within domain of intergroup relations research. Approaches not simply restricted to research within psychology but across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

222D. Social Stigma. (4) Seminar, three hours. Introduction to classic and contemporary theory and research on social psychology of stigma, primarily from perspective of stigmatized. Letter grading.


226A-226B-226C. Current Literature in Social Psychology. (4-3-3) Discussion, three hours. Limited to first-year social psychology students. Courses 226B and 226C are open to nonsocial psychology students with consent of instructor. Recent and current research papers in social psychology presented by members of seminar and their significance and methodology discussed and critiqued in depth. S/U grading.

228A. Lecture: Critical Political Psychology. (4) (Same as History M236A and Political Science M261A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, conflict, political communication, and elite decision making.

228B. Seminar: Political Psychology. (4) (Same as Political Science M261D.) Discussion, three hours. Preparation: course 220A or Political Science M261A. Examination of issues in political psychology: psychobiography, racial and ethnic conflict, mass political movements, and public opinion. S/U or letter grading.

228C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E.) Discussion, three hours. Limited to upperclassmen. Political Psychology. S/U or letter grading.

229. Social Cognition. (4) Lecture, one hour; discussion, two hours. Social cognition is concerned with how people organize and interpret social information in their environment. Seminar provides broad background in the field and also gives depth and focus on particular research topics in the field. Weekly papers, as well as a lengthy final paper, required.

231. Psychology of Gender. (4) Seminar, three hours. Preparation: one prior course on gender/women's studies. Critical evaluation of current research and theory concerning psychology of gender, drawing on work from various areas of psychology to understand sources of gender differences and consequences for human behavior and social interaction.

232. Human Sexuality. (4) Lecture, three hours. Designed for graduate students. Intended to teach students how to carry out research on human sexual behavior. 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 therapy. Discussion-oriented, with emphasis on operationalizing predictions concerning human sexual functioning.

233. Seminar: Environmental Psychology. (4) Requisite: courses 232. Critical review of work in environmental psychology designed to identify basic dimensions for analysis of man-environ-
241. Current Developments in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate developmental psychology students. Presentation of papers on current topics in develop-
ment research. S/U grading.

242A-M242G. Seminars: Developmental Psychol-
ogy. (4 each) Each course may be taken indepen-
dently 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. Requi-
sites: courses 240A, 240B. May be taken indepen-
dently and may be repeated for credit. S/U or letter grading.

242F. Psychological Aspects of Mental Retarda-
tion. (4) Seminar, three hours. Requisites: courses 240A, 240B. Content depends on the interest of class and instructor. May be repeated for credit. S/U grading.

244. Critical Problems in Developmental Psychol-
yogy. (4) Lecture, three hours. Requisites: courses 240A, 240B. Current problems; content varies depend-
ing on interest of class and instructor. May be re-
peated for credit with consent of instructor.

245. Personality Development and Education. (4) Lecture, three hours. Review of research and theory of critical content ar-
eas in personality development that bear on school performance. S/U grading.

246. Psychological Aspects of Mental Retarda-
tion. (4) (Same as Psychiatry M246.) Lecture, 90 minutes. Discussion of psychological aspects of men-
tal retardation, including classification, description, etiology, theory, prevention, treatment, assessment, modern and future developments, and input from oth-
er disciplines (ethics, law, religion, welfare systems). S/U or letter grading.

247. Culture, Brain, and Development. (4) (Same as Anthropology M235S, Applied Linguistics M235, Applied Linguistics M236, and Neuroscience M236.) Seminar, three hours. Designed for graduate students. Integration of knowledge across different disciplines to un-
derstand interrelations of culture, brain, and develop-
ment, where development includes both human on-
togeny and human phylogeny. S/U or letter grading.

248. Culture, Brain, and Development. (4) (Same as Anthropology M230, Applied Linguistics M232, Education M236, and Neuroscience M232.) Seminar, 90 minutes every other week. Interdiscipli-
inary seminar series to provide students with exposure to current research in understanding complex rela-
tionship between culture, brain, and development. S/ U grading.

249. Evaluation Research. (4) Requisites: courses 250A, 250B. Introduction to evaluation research in psychology, with emphasis on clinical, community, and school psychology approaches. Topics include eval-
uation of policy and strategy issues, design of evaluative stud-
ies, data analysis, and utilization of findings.

250A. Advanced Psychological Statistics. (4) Re-
fundamentals of basic statistical tech-
niques as applied to design and interpretation of ex-
perimental and observational research.

250B. Advanced Psychological Statistics. (4) Ad-
vanced experimental design and planning of investi-
gations.

250C. Advanced Psychological Statistics. (4) Lec-
ture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of traditional topics in correlation and regression analy-
ses, including model comparison strategies, evalua-
tion of model assumptions, testing mediation and mod-
eration hypotheses, working with categorical vari-
able, general linear model, and logistic regression.

251A-251B-251C. Research Methods. (4-4-4) Tuto-
rial, to be arranged. Designed for graduate psycholo-
ogy students. Students design and conduct original re-
search projects under the direction of an instructor.

252A. Discrete Multivariate Analysis. (4) Lecture,
three hours. Requisites: courses 250A, 250B. Intro-
duction to analysis of data having multiple dependent vari-
ables. Topics include continuous multivariate distribu-
tions, multiple regression, multivariate analysis of vari-
ance, discriminant analysis, canonical correlation, prin-
cipal component analysis. Applications from clini-
cal, cognitive, physiological, and social psychology.

252B. Computer methods.

254A. Computing Methods for Psychology. (4) Lecture, three hours. Requisites: courses 250A, 250B. Use of MATLAB, but only basic programming knowledge assumed; no prior knowledge of MATLAB required. Designed to teach basic computer methods relevant to work in experimental psychology and cog-
nitive science. Topics include simulation/modeling, statistical data analysis, and stimulus presentation. S/ U or letter grading.

255A. Quantitative Aspects of Assessment. (4) Lecture, four hours. Requisites: courses 250A, 250B. Introduction to issues concerning empirical measure-
ment of abstract constructs using both classical and modern empirical techniques. Hands-on approach al-
 lows students to develop practical experience. In addi-
tion to discussion of issues concerning reliability and valid-
ity, topics include exposure to analytic approach-
es, including item response theory, multiple regres-
sion, principal components analysis, exploratory fac-
tor analysis, confirmatory factor analysis, path analy-
sis, and structural equation modeling. S/U or letter grading.

255B. Item Response Theory. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to item response theory (IRT) measurement models and their application to educational and psychological data. Coverage of major IRT models, including mod-
els for dichotomous and polytomous formats. S/U or letter grading.

M257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by one or more 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, formative, and structured-means factory analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.


259. Quantitative Methods in Cognitive Psychology. (4) Requisites: courses 250A, 250B. Number of nonstatistical mathematical methods and techniques commonly used in cognitive psychology. Topics include Markov chains, 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, and research in study of perception. Considers the question: Why do things look, sound, smell, taste, or feel as they do? What is the nature of perceptual systems? How do these systems process information?


264. Thinking. (4) (Formerly numbered 265.) Lecture, three hours. Contemporary theory and research in thinking, problem solving, inference, semantic memory, internal representation of knowledge, imagery, concepts. S/U or letter grading.


268A-268E. Seminars: Human Information Processing. (4) 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.
Survey of major psychological attributes of particular forms of psychopathology, including analysis of status of various theories concerned with etiology and modification of neurotic, psychotic, and psychosomatic disorders. Focus on understanding psychological constructs. S/U or letter grading.


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 (289A, 289B) and S/U (289C) grading.

290. History and Systems of Psychology. (2) Seminar, two hours. Requisites: courses 251A, 251B, 251C. Rich and detailed examination of history of full scope of psychology as scientific discipline, with particular emphasis on highlight, sociocultural/personality, developmental, and biological aspects of discipline. Open to graduate students in psychology. S/U grading.

291. Principles of Behavioral Pharmacology. (4) Lecture, four hours. Intensive analysis of some major biochemical systems: nervous, cardiovascular, gastrointestinal, and endocrine systems. Usual and altered states of these systems (e.g., stress) as these can promote permanent tissue injuries, disease, or improved bodily function, health enhancement. S/U or letter grading.

292B. Psychosocial Contributors to Ethnic Disparities in Health. (4) Seminar, three hours. Limited to graduate students. Role of social class, gender, and other psychosocial factors in accounting for disparities in physical and psychological health in racial/ethnic groups. Attention to variety of specific disorders, personality and explanatory models and approaches to intervention. S/U or letter grading.


295. Psychology of Diversity. (4) Seminar, three hours. Introduction to research and theory on group differences and psychology of diversity. Topics include social identity, intergroup relations, development across lifespan and across social and cultural contexts, and group disparities in health and mental health. Letter grading.

296A. Research Topics in Psychology. (1) Formerly numbered 296.) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Research presentations and opportunities for feedback on current and proposed research. Letter grading.

C296B. Research Group Seminars: Practicum. (1) Seminar, one hour. Designed for graduate students who are part of research group to meet with under graduate students. Discussion of research methods and current literature in field or of research of faculty members or students. Concurrently scheduled with course C194D. S/U grading.

297. Issues in Social Development of Minority Child. (4) Seminar, three hours. Designed for graduate students. Critical evaluation and integration of existing research on social psychological development of minority child. Emphasis in socialization of cognitively and personality style, with goal of empirically clarifying issues raised in this area of developmental study. S/U or letter grading.

298. Special Problems in Psychology. (4) Discussion, three hours. Content depends on interests of particular instructor. May be repeated for credit. S/U or letter grading.


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

401. Fieldwork in Clinical Psychology. (1 to 12) Fieldwork, to be arranged. Requisites: courses 271A, 271B, 271C. Students on practicum assignments are required to register for this course each term (except by consent of clinical program committee). S/U or letter grading.

402. Clinical Research Practicum. (2) Fieldwork, two hours. Faculty and graduate students who share interests discuss current literature, new ideas, methodological issues, and preliminary findings. Meetings include feedback on research activity to encourage, support, and facilitate student research expertise. Assignment included. S/U grading.

409A-409B-409C. Clinical Teaching and Supervision. (4-4-4) Clinic, four hours. 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. S/U or letter grading.

410D-410E-410F. Clinical Assessment Supervision. (4-4-4) Clinic, two hours; other, one hour. Designed for third-year graduate clinical psychology students. Study and practice of knowledge, concepts, and theories on teaching and supervision of psychological assessment. Letter grading.

420A-420B. Health Psychology Practicum. (2-2) Fieldwork, to be arranged. Designed for graduate students. Determination of what areas of health, illness, treatment, and delivery of treatment can be elucidated by understanding of psychological concepts and research; psychological perspective on these problems; how psychological perspective might be extended and applied in various fields. Through practical field placement, students apply knowledge acquired in class to research observation and/or clinical work in field. S/U or letter grading.

421. Research in Social Psychology. (2) Discussion, two hours; reading and group work, four to six hours. Forum for faculty and graduate students pursuing research on a common topic to share research ideas 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. S/U or letter grading.

425. Health Psychology Lecture Series. (2) Lecture, one hour. Clinicians and researchers in health psychology from Los Angeles area present their research, programs, and/or clinical work as part of training program in health psychology. 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.

455. Presentation of Psychological Materials. (4) Seminar, to be arranged. Preparation: credit in under-graduate teaching. Students serve as discussion section leaders in selected undergraduate courses. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate 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 UCS. 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. Preparation: successful completion of qualifying examinations. May be required by some area committees as 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.
PUBLIC AFFAIRS
Interdisciplinary Minor
Meyer and Renee Luskin School of Public Affairs

UCLA
3357 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656
(310) 206-8966
e-mail: paul@publicaffairs.ucla.edu
http://www.publicaffairs.ucla.edu/content/undergraduate-programs

Anastasia Loukaitou-Sideris, Ph.D., Chair

Faculty Committee
Randall D. Crane, Ph.D. (Urban Planning)
Alfreda P. Iglesias, Ph.D. (Social Welfare)
Corinna Leopold, Ph.D. (Urban Planning)
Anastasia Loukaitou-Sideris, Ph.D. (Urban Planning)
William B. Parmenter, Ph.D. (Public Affairs)
Andrew Sabl, Ph.D. (Political Science, Public Policy)
Rick Tuttle, Ph.D. (Public Policy)

Scope and Objectives
The Public Affairs minor teaches undergraduate students the skills of policy analysis and exposes them to many of the local, state, national, and international issues facing today’s policymakers and opinion leaders. Courses explore the public (governmental) and nonprofit sectors and provide a theoretical, conceptual, and practical foundation for students. Particular attention is given to the vexing issues facing urban areas and urban planners, social welfare and social workers, and public policies that affect individuals and groups of people in their public and private lives.

Undergraduate Study
Public Affairs Minor
To enter the Public Affairs minor, students must have an overall grade-point average of 2.0 or better and complete Public Policy 10A with a grade of B or better. For further information, contact the program director/counselor at (310) 206-8966.

Required Core Courses (8 units): Public Policy 10A and one course from 10B, C101, 102, M116, C119, 125, Honors Collegium 82, Social Welfare 191, Urban Planning 120, 121 or, by petition only, another applied policy course. Highly recommended: one statistics and one microeconomics course.

Required Upper Division Courses (20 units): (1) Three courses from one of the following clusters: (a) gender and multiculturalism cluster — Public Policy 120, Social Welfare 101, M104C, Urban Planning 141, M175; (b) labor and work cluster — Public Policy 141, C144, 145, 148; (c) policy studies cluster — three upper-division public policy lecture/seminar courses (191A may be repeated for credit with topic change); (d) social welfare cluster — three upper-division social welfare lecture courses (fieldwork and internship courses such as Social Welfare 130A and 130B may not be applied); (e) urban policy and planning cluster — three upper-division urban planning lecture courses (129 may be repeated for credit with topic change); or (f) by petition, a cluster of upper-division policy courses proposed by the student; (2) (a) one elective course offered by the Luskin School of Public Affairs not used to satisfy the core or cluster requirement; (3) capstone project to be completed during the senior year that may be satisfied by one of the following: (a) Public Policy 187, (b) Political Science M191DC or M194DC, (c) Civic Engagement 105SL, or (d) by petition another upper division applied policy course that requires a substantial term paper.

Fieldwork and internship courses, such as Social Welfare 130A, 130B, and Urban Planning M165, may not be applied toward the minor. No more than three of the cluster and elective courses may be from a single department, and no more than two may be from outside the school.

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

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

PUBLIC HEALTH
Interdisciplinary Minor
Jonathan and Karin Fielding School of Public Health

UCLA
A1-269 Center for the Health Sciences
Box 951772
Los Angeles, CA 90095-1772
(310) 825-5524
e-mail: info@ph.ucla.edu
http://www.ph.ucla.edu

Hilary A. Godwin, Ph.D., Chair

Faculty Committee
Roger Detels, M.D., M.S. (Epidemiology)
Curtis D. Eckhert, Ph.D. (Environmental Health Sciences)
Hilary A. Godwin, Ph.D. (Biostatistics, Institute of the Environment and Sustainability)
Moira Inkelas, Ph.D. (Health Policy and Management)
Christina Ramirez Kitchen, Ph.D. (Biostatistics)
Ondine S. von Ehrenstein, Ph.D. (Community Health Sciences)

Scope and Objectives
The profession of public health is responsible for the protection, preservation, and promotion of the health of communities and populations. Although the health problems of today differ from those of the past and of the future, the professionals who make up the field need to be trained to respond to broad community problems utilizing the basic ideas of prevention of disease and promotion of well-being. This goal can be achieved only with an understanding of the health status of the population through data gathering and analysis, as well as knowledge of the complex relationships between disease process in the social and biological environment of the community.
The field of public health today needs practitioners from many disciplines. Candidates for graduate study may come from a wide variety of academic backgrounds, training, or experience, including both the natural and social sciences.

**Graduate Study**

Official, specific degree requirements are detailed in *Program Requirements for UCLA Graduate Degrees*, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Fielding School of Public Health offers two schoolwide degrees, Master of Public Health (M.P.H.) and Doctor of Public Health (Dr.P.H.), and M.S. and Ph.D. degrees in Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Policy and Management. An undergraduate minor in Public Health is also offered.

One interdepartmental degree program — the Ph.D. in Molecular Toxicology — is also available.


**Public Health**

**Lower Division Courses**

10. Introduction to Public Health. (4) Seminar, three hours. Designed for lower division students. Introduction to range of topics, issues, and frameworks to help students understand current public health issues and public health systems, policies, and practices. P/NP or letter grading.


**Upper Division Courses**

M106. Health in Chicano/Latino Population. (4) (Same as Chicano and Chicano Studies M106.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Binational review of health effects in U.S. and Mexico. Letter grading.


M151. Healthcare in 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 healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160A.) Lecture, four hours; possible field observations. First in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

**Graduate Courses**

299. Strategies for Success for Doctoral Students. (2) Seminar, two hours. Interactive seminar, with focus on research process, tips for success in academia, and important tools for leadership designed for all doctoral students in School of Public Health. S/U grading.

475. Pedagogy: Essential Skills and Innovative Strategies. (2) Seminar, two hours. Designed for School of Public Health doctoral students. Interactive seminar with focus on developing teaching materials for courses and acquisition of skills and tools that help students to become successful and innovative instructors. Active learning methodologies and competencies-based approach to instruction. S/U or letter grading.

**PUBLIC POLICY**

Meyer and Renee Luskin School of Public Affairs

UCLA

3250 Public Affairs Building

Box 951656

Los Angeles, CA 90095-1656

(310) 284-7657, Department Office

(310) 206-0037, fax administration/admissions: (310) 206-2381

http://publicaffairs.ucla.edu/public-policy

Michael A. Stoll, Ph.D., Chair

**Professors**

Joel D. Aberbach, Ph.D.

Albert Carnesale, Ph.D.

Michael R. Darby, Ph.D. (Warren C. Cowdery Professor of Money and Financial Markets)

Franklin D. Gilliam, Ph.D.

Neal Halton, M.D., M.P.H.

Sanford M. Jacoby, Ph.D. (Richard C. Maxwell Professor Emeritus of Law)

Matthew E. Kahn, Ph.D.

Mark A. Kleinman, Ph.D.

Susanne Lohmann, Ph.D.

Mark A. Peterson, Ph.D.

Michael A. Stoll, Ph.D.

Fernando M. Torres-Gil, Ph.D.

Amy B. Zegart, Ph.D.

**Professors Emeriti**

Robert Dallek, Ph.D.

Joel F. Handler, J.D. (Richard C. Maxwell Professor Emeritus of Law)

Michael D. Intriligator, Ph.D.

Archie Kleingartner, Ph.D.

Arlene Leibowitz, Ph.D.

Daniel J.B. Mitchell, Ph.D. (Ho-Su Wu Professor Emeritus of Management)

Barbara J. Nelson, Ph.D.

Richard N. Rosecrance, Ph.D.

Allen J. Scott, Ph.D.

Charles E. Young, Ph.D.

**Associate Professors**

J.R. DeShazo, M.S.C., Ph.D.

Robert T. Jensen, Ph.D.

Meredith Phillips, Ph.D.

Andrew Sabl, Ph.D.

**Assistant Professors**

Aaron L. Panofsky, Ph.D.

Sarah J. Reber, Ph.D.

**Lecturers**

C. Mike Dennis, M.P.A., C.P.F.O.

Rick Tuttle, Ph.D.

**Visiting Professor**

Michael S. Dukakis, J.D.

**Scope and Objectives**

The Department of Public Policy is an interdisciplinary unit composed of faculty members from various disciplines, some of whom hold joint appointments in other UCLA departments. Its goal is to foster an understanding of the theory and practice of public policy in the many fields in which it applies. Examples include education, healthcare, unemployment and training, drug policy and crime, economic development, national security, and the environment. The department offers the Master of Public Policy (M.P.P.) degree and participates in the undergraduate minor in Public Affairs.

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, political processes, and public and nonprofit management.

Concurrent degree programs allow students to combine study for an M.P.P. with work toward a J.D. in the School of Law, an M.B.A. in the Anderson Graduate School of Management, an M.D. in the Geffen School of Medicine, an M.P.H. in the Fielding School of Public Health, or an M.S.W. in the Department of Social Welfare.

The undergraduate minor in Public Affairs familiarizes students with key issues in public policy. Both programs have a heavy applied orientation. For further information on the minor, see Public Affairs earlier 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://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more
Public Policy

Upper Division Courses

C101. Drug Abuse Control Policy. (4) Lecture, three hours; outside study, nine hours. Introduction to drug abuse as social problem and to drug abuse control as policy issue, with examination of both necessity and difficulty of making and executing wise policies around psychoactive substances. Concurrently scheduled with course C235. Letter grading.

C102. Imperfect Rationality. (4) Lecture, three hours; outside study, nine hours. Individuals that are capable of acting rationally, in their own interest, is central to economic theory and to custom, law, and common sense thinking. Economics offers thorough account of ways in which such people should deal with choice, risk, and time. Casual observation and experimentation agree that actual behavior deviates in systematic ways from the model of rationality. Groups of rationally seeking individuals might fail to act as rationally self-seeking groups. Consideration of deviations between rational choices and actual behavior in policy settings. Letter grading.

C103. Ethics, Morality, and Public Life: Contemporary 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.

C104. 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. Where 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 unit city? Letter grading.

C105. Leadership in Public Interest. (4) Lecture, three hours. Examination of prevailing models, theories, and practices in public settings. Application of them through case studies, films, and situational articles. Participation in group projects and discussions designed to improve understanding of role of leadership in mobilizing people groups to do difficult work. Introduction to literature and theory on leadership, examination of leadership of group dynamics, and challenge of leadership in times of stress and change. 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, school choice, international 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. Letter grading.

C113. Politics of U.S. Health Policy. (4) Lecture, three hours. Every modern nation faces similar health system challenges, such as promoting health and longevity, providing effective treatments, balancing benefits and burdens of medical technology, and controlling healthcare costs that grow faster than national income. U.S. seems uniquely disadvantaged with lower life expectancy, problems of medical services, lack of insurance for millions, and highest costs in world, hampering families, businesses, and government. What political structures produced this result and influence possibility and direction of ongoing policy change? Examination of meaning of health and healthcare; international experience; current status, organization, and financing of U.S. healthcare system; and factors that influence political decision making, including comprehensive healthcare reform; framing of problems, role of public opinion, influence of interest groups, composition and organization of Congress, and options for reform. Letter grading.

C115. Environmental and Resource Economics and Policy. (4) Lecture, three hours. Requisites: Economics 1 each; M118. Survey of ways economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists that bear on public policy issues. Currently scheduled with course CM250. Letter grading.

C116. Nuclear Weapons: Critical Decisions. (4) (Same as Environment M165, Honors Colloquium 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. Group projects and analysis of applications of presidential leadership. P/NP or letter grading.

CM117. Crisis Decision Making in U.S. Foreign Policy. (4) (Same as Political Science M121B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisites: Political Science 120A, 127A, 133A. Examination of theory and practice of U.S. foreign policy making. Assessment of competing theories of international relations and application to specific case studies. Weekly role plays of foreign policymakers and final crisis simulation exercise. Concurrently scheduled with course C272. Letter grading.

M118. U.S. Intelligence Agencies in Theory and Practice. (4) (Same as Political Science M120C.) Lecture, three or four hours; discussion, one hour. Limited to juniors/seniors. Examination of U.S. intelligence agencies from Cold War to present. Particularly in light of 9/11 and Iraq war, few organizations are more relevant to current national security issues. Individuals 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.

M119. U.S. Intelligence Agencies in Theory and Practice. (4) (Formerly numbered C236.) (Same as Political Science M115A.) Lecture, three hours; outside study, nine hours. Introduction to literature and theory on role of leadership in mobilizing people groups to do difficult work. Introduction to literature and theory on
ors—business, news media, mass public, organized interests, Congress, the president, regulatory agencies, business, ideology, competitive biases, and ethical reasoning. P/NP or letter grading.

141. Employment and Labor Policy: Survey. (4) Lecture; three hours; outside study, nine hours. Requires: 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 philosophical analysis of reasons for government regulation. Analysis of current data on labor unions, the workplace, and labor-market trends. Workforce diversity, education and training, social welfare policy, and global issues (immigration, trade, and global economy) as it affects current labor trends and issues on policy horizon. Letter grading.

C144. Comparative Industrial Relations. (4) Lecture; three hours; outside study, nine hours. Requires: course 10A. 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 labor relations systems, examination of institutions and ideologies of labor, management, and government, and interaction of their power relationships; substance and manner of determination of “web of rules” governing rights and obligations of the parties; and resolution of conflicts. Concurrently scheduled with course CM231. Letter grading.

145. Labor Policies in the U.S.: Historical Perspectives. (4) Lecture; three hours; outside study, nine hours. Requires: course 10A. Insight into evolution of labor policies in the U.S. from 19th century to the present. Exploration of important policy areas such as child labor, women's rights, protective legislation for women workers, industrial relations, civil rights, occupational safety and health, and international labor standards in (1) historical context (economic, political, and social); (2) development of the debate; (3) roles and actions of major players (business, labor, government); and (3) changing patterns of government involvement in public policy. Letter grading.

146. Democracy, Disobedience, and Dissent. (4) Lecture; three hours; outside study, nine hours. Requires: course 10A. Philosophy 6 or Political Science 10. 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. Letter grading.

C147. Critical Policy Issues and Problems in Globalizing World. (4) Lecture; three hours; outside study, nine hours. Course is designed for graduate students to 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 flux, change, and movement in world space and history. Concurrently scheduled with course C245. Letter grading.

148. Business and Public Policy. (4) Lecture; three hours; outside study, nine hours. Requires: course 10A. Introduction to key issues arising at interface between business and government policy. Discussion of why government focuses so intensively on regulating markets. Historical context for current employment and labor policies in the U.S. Pro and con philosophical analysis of reasons for government regulation. Analysis of current data on labor unions, the workplace, and labor-market trends. Workforce diversity, education and training, social welfare policy, and global issues (immigration, trade, and global economy) as it affects current labor trends and issues on policy horizon. Letter grading.

M149. California Sustainable Development: Economic Perspective. (4) (Same as Environment M135 and Urban Planning M163.) Lecture; three hours. Examination of specific environmental challenges that California faces. Microeconomic perspective used, with special emphasis on incentives of politicians to reduce their pollution and incentives of local, federal, and state government to address these issues. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

M186. Equal Rights and Unequal Education. (4) (Same as Education M186 and Political Science M183.) Lecture, four hours. Exploration of contradictions between American beliefs about equal opportunity and racial equality and inequalities that exist in U.S. public education. Three major topic areas in education as vehicles for understanding philosophical and empirical complexities of issues surrounding equality in America. Examination of education policy issues from legal, sociological, political, and philosophical perspectives. Arguments range from Martin Luther King to Ronald Reagan, and legal cases include Plessy versus Ferguson to Brown versus Board of Education, as well as cases still pending in courts. Letter grading.

187. Research Seminar: Public Policy. (4) Seminar; three hours; outside study, nine hours. Requires: course 10A. Limited to and required of seniors in Public Affairs minor. Production of research project that examines in depth one particular policy issue in its historical context, including political pressures involved and proximity of issues. Examination of decision skills and data acquisition and analysis, conceptualization, and written analysis and presentation. Letter grading.

191A. Variable Topics Research Seminars: Public Policy. (4) Seminar; three hours; outside study, six hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Public Policy. (4) Seminar; three hours; outside study, six hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191C. Variable Topics Research Seminars: Public Policy. (4) Seminar; two hours; outside study, four hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191D. Variable Topics Research Seminars: Public Policy. (4) Seminar; one hour; outside study, two hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

193A. Marschak Colloquium: Social Sciences. (2) Seminar, two hours. Limited to undergraduate students. Attendance at biweekly Marschak Colloquium presentations, highly regarded and long-standing interdisciplinary lecture series given by leading social science experts, required. Discussion of lecture topics and research models in behavioral sciences. Letter grading.

197. Individual Studies in Public Policy. (2 or 4) Lecture, three hours; outside study, nine hours. Below 100-level courses. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangential reading of many subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

201. Principles of Microeconomic Theory I. (4) Lecture; three hours; outside study, nine hours. First course in two-term sequence (see course 204) to prepare students for economic analysis of public policy, with review of economic principles and basic microeconomic theory and policy applications. Consumer theory and demand, producer theory and supply, equilibrium of product and factor markets. Letter grading.

202. American Political Institutions and Processes. (4) Lecture; three hours; outside study, nine hours. Designed to provide background necessary to develop strategies for dealing effectively with political economic impact of policy and administration. Discussion of U.S. constitutional arrangements, followed by instrumental and integrative examination of primary institutions of politics and governance from organized interests to legislatures, bureaucracies, and courts. Letter grading.

203. Statistical Methods of Policy Analysis I. (4) Lecture; three hours; outside study, nine hours. First course in two-term sequence (see course 208). Review of statistical principles and methods policy research and analysis. Topics include descriptive statistics, expectations, univariate distribution, probability, covariance and correlations, statistical independence, random variable generating, estimation and efficiency, statistical inference, confidence intervals, and hypothesis testing. Letter grading.

204. Principles of Microeconomic Theory II. (4) Lecture; three hours; outside study, nine hours. Requires: course 201. Second course in two-term sequence (see course 201) covering both theory and policy applications. Topics include monopoly, factor markets, general equilibrium, welfare economics, externalities, public goods, uncertainty, and intertemporal optimization. Letter grading.

205. Institutional Leadership and Public Manager. (4) Lecture; three hours; outside study, nine hours. Examination of leadership role of executives in public service as they lead and manage in tough day-to-day world of politics and intensive public scrutiny. Heavy emphasis on case studies that focus on what public managers do, political and organizational environment in which they find themselves, and skills they need both inside and outside their organization to get things done with high degree of competence and integrity. Letter grading.

206. Political Economy of Policy Adoption and Implementation. (4) Lecture; three hours; outside study, nine hours. Analysis of how policy is formed, adopted, and implemented. How policies are formulated, by whom, on what issues, to what effect, how to define relationships between politicians, bureaucrats, lobbyists, and media experts. Letter grading.

207. International Political Economy. (4) Lecture, three hours; outside study, nine hours. Examination of political, legal, and social institutions to show where the U.S. fits in among varieties of modern capitalism and business/government relations. Analysis of domestic policy options nations are pursuing in response to economic globalization, such as protectionism, mercantilism, and deregulation. Introduction to international coalitions being formed, including NAFTA, and to nongovernmental organizations created to deal with special problems such as global environmental crisis. Letter grading.

208. Statistical Methods of Policy Analysis II. (4) Lecture; three hours; outside study, nine hours. Requires: course 201. Second course in two-term sequence (see course 201) covering both theory and policy applications. Topics include monopoly, factor markets, general equilibrium, welfare economics, externalities, public goods, uncertainty, and intertemporal optimization. Letter grading.

209. Management in the 21st Century. (4) Lecture; three hours; outside study, nine hours. Overview of moral philosophy, political theory, and public-sector ethics using readings from classical and contemporary literature and case discussion of various ways in which terms such as “democracy” and
210. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Preparatory course that precedes three-term 298A, 298B, 298C sequence in which students prepare major policy projects on actual case studies. Examination of evaluation and implementation and are equivalent to professional master's theses. Papers build on prior course cores, internship experience, and policy cluster courses. Letter grading.

211. Normative Issues in Policy Analysis. (4) Lecture, three hours; discussion, one hour. Limited to graduate students. Introduction to some basic normative categories, arguments, and tools essential for addressing questions of public policy. Normative questions are those that concern whether actions, characters, or states of world are right or wrong — or, in less absolute cases, better or worse than possible alternatives. Allegedly value-free methods of analysis do not help decide policy questions. Certain policy questions raise normative concerns sooner or more urgently than others: those that go beyond matters of economic efficiency, those that involve the distribution of human dignity; equality, justice, or national or cultural traditions. Some questions that seem to be subject to efficiency analysis raise some strong ethical concerns distinct from those that arise in the context of disagreement that exists over both what efficiency is and in what cases or across what dimensions it ought to govern. Letter grading.

M212. Child Welfare Policy. (4) (Same as Social Welfare M250D.) Lecture, three hours. Development of social policy as it affects families and children from different cultural backgrounds and as it is given form in public child welfare system. Examination of development of infrastructure to support needs of children and families. S/U or letter grading.

M213. Mental Health Policy. (4) (Same as Social Welfare M260K.) Lecture, three hours. Examination of evolution of social policy and services for mentally ill with emphasis on political, economic, ideological, and sociological factors that affect views of mental illness and services they are provided. S/U or letter grading.


M215. Health Policy. (4) (Same as Social Welfare M290M.) Lecture, three hours. Introduction to contemporary issues in healthcare financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

M216. Public Policy for Children and Youth. (4) (Same as Social Welfare M290N.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M218. Research Design and Methods for Social Policy. (4) (Same as Urban Planning M204.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, including ethnography, interviewing, and document collection.


M220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M250.) Lecture, three hours. Historical evolution of urban form and transportation systems. Location theory, city structure and urban form, recent trends in urban form, spatial mismatch hypothesis, jobs/housing balance, transportation in strong central city and polycentric city, neotraditional town planning. Beil, draft, rail transit and urban form. Letter grading.

M221. Travel Behavior Analysis. (4) (Same as Urban Planning M255.) Lecture, three hours. Requisites: courses 211, 207, or 220. Descriptions of travel patterns in metropolitan areas, trends and projections into 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.

M222. Transportation Economics, Finance, and Policy. (4) (Same as Urban Planning M256.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation policy; 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 environmental policies; and overview of transportation-related approaches to air quality enhancement; new car talipie standards; vehicle emissions, air pollution, transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growth of automobile fleet; automobile in sustainability debate. Letter grading.

M224A. Introduction to Geographic Information Systems. (4) (Same as Urban Planning M206A.) Lecture, three hours; laboratory, one hour. Preparation: one packaged statistics program, Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include: computer systems, spatial analysis, and information systems. Use of mapping and spatial analysis to address planning problem. Letter grading.

M224B. Advanced Geographic Information Systems. (4) (Same as Urban Planning M206B.) Studio, three hours. Requisite: course M224A or Urban Planning M206A. Knowledge and skill development necessary to plan, design, develop, and publish Web-based geographic information systems (GIS) solution. Coverage of basics of Internet programming languages, including JavaScript, JQuery, CSS, and HTML. Exploration of different Web-authoring tools, including WordPress as content management platform, Google Maps API, and ArcGIS Server. Students draw on prior experience with ArcMap to create spatial layers for dynamic interaction with Web-mapping solutions. Letter grading.

M225. Education Policy and Education Inequality. (4) Seminar, three hours; outside study, nine hours. Limited to graduate students. Examination of policies that maintain socioeconomic disparities in educational success. Topics include international and national comparisons of educational outcomes, private and public school choice, school accountability policy, intergenerational transmission, teacher quality, parenting and preschool interventions, and supplemental educational services. Letter grading.


M227. Nonprofit Sector, State and Civil Society. (4) (Same as Social Welfare M290H and Urban Planning M227.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its current repositioning in examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M228. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Social Welfare M241E and Urban Planning M228.) 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 organization within context of social issues; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

CM231. Comparative Industrial Relations. (4) (Same as Management M255S.) Lecture, three hours; outside study, nine hours. Requisite: Management 409 or elementary knowledge of labor economics. At national and international levels, historical and contemporary labor relations; legal and economic contexts influencing human resource systems of selected developed countries. In addition to discussion of possible frameworks of human resource systems, examination of institutions and ideologies of labor, management, and government, and interaction of their power relationships; substance and manner of determination of “web of rules” governing rights and obligations of the parties; and resolution of conflicts. Concurrently scheduled with course C144. S/U or letter grading.

M232. Labor Relations: Process and Law. (4) (Same as Management M250A.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Consideration, at advanced level, of collective bargaining process, labor-management, and collective bargaining context. Labor law, labor relations; union structure and goals, and influence of external labor markets on labor relations. S/U or letter grading.

233. Employment Issues in California. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Drawing on resources of UCLA Business 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.

234. Labor Markets and Social Policy. (4) Lecture, three hours; outside study, nine hours. Examination of analytical tools and conceptual models needed to understand policies directed toward people in lower tail of income distribution. Concepts include static and dynamic labor supply, labor demand, compensating differentials, human capital, and economic models of immigration and crime. Letter grading.

C235. Drug Abuse Control Policy. (4) Lecture, three hours; outside study, nine hours. Introduction to drug abuse as social problem and to drug abuse control as public policy issue, with examination of both necessity and difficulty of making and executing wise policies. Coverage of psychosocial substances. Concurrently scheduled with course C105.

237. Ethical Questions in Public Life. (4) Lecture, three hours; outside study, nine hours. Introduction to moral issues that commonly arise in public life. Ethics of political roles, compromise and moral integrity, lying and deception, place of political rhetoric in defending stances on issues, politics and violence. Letter grading.
M246. Electoral Democracy: Theory and Behavior. (4) (Same as Political Science M268B.) Seminar, three hours. Examination of both empirical and normative questions and the philosophy of political theories for scholars in all subfields of political science as well as policy students and others interested in these issues. Consideration of topics fundamental to both democratic and nondemocratic American politics — public opinion; nature and purpose of elections; representation; parties; and purpose of democracy as whole — through classic political theory treatmens and modern research in American political behavior. Letter grading.

M247. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Social Welfare M241F and Urban Planning M220B.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical processes of problem solving regarding substantive social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on the other. Letter grading.

M248. Toleration, Pluralism, and Diversity. (4) (Same as Political Science M216.) Seminar, three hours. Prior experience in political or legal theory helpful. Exploration of both abstract concepts of toleration and contemporary disputes. S/U or letter grading.

CM250. Environmental and Resource Economics and Policy. (4) (Same as Urban Planning M267.) Lecture, three hours. Requisites: courses 204 and 208, or Urban Planning 207 and 220B. Survey of ways economics is used to define, analyze, and re-solve problems of environmental management. Overview of analytical questions addressed by environmental economists that bear on public policies. Concurrently scheduled with course C115. Letter grading.

251. Public Budgeting and Finance. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. How financial resources are allo-ca ted through budget processes at federal, state, and local levels of government in the U.S. and how each level of government finances its operations and capital investment programs, with particular attention to California. Students are organized into small groups to facilitate review of assigned readings and to report key information to class. Based on assigned readings, development of a problem-based matrix outlining best practices budget strategies to use in various resource availability contexts. Letter grading.

M252. Introduction to Environmental Policy. (4) (Same as Urban Planning M263.) Lecture, three hours. Limited to graduate students. Examination of methods of environmental analysis covering variety of topics with cross-disciplinary perspectives. Development of ability to analyze major environmental and resource is-sues as well as to read, discuss, and write critically about environmental policy. Letter grading.

M253. Lesbian, Gay, BiseXual, and Transgender Law and Public Policy Research. (4) (Same as Law M675.) Lecture, three hours. Exploration of relevance of public policy research to lesbian, gay, bisexual, and transgender (LGBT) legal issues. Topics include LGBT identity and demographics, legal recognition of same-sex relationships, same-sex marriage discrimination, transgender rights, intersections of race and sexuality, LGBT youth and safe schools, LGBT health dis-parities, and Don’t Ask, Don’t Tell. Discussion of so-cial science research methods and fundamen-tal issues in conducting and interpreting qualitative and quantitative research on this topic. Letter grading.

M256. Foundations of Social Welfare Policy. (4) (Formerly numbered M210.) (Same as Social Welfare M221A and Urban Planning M241.) Lecture, two hours; discussion, one hour; outside study, nine hours. Nature, roles, and history of welfare institutions in different societies; applicable social system theory of different components of welfare system; theory and design of policy models and welfare policies and organizational forms. S/U or letter grading.

M261. Aging Policy, Elderly and Families. (4) (Formerly numbered M211.) (Same as Social Welfare M230.) 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 result from the descrip-tion of historical development of contemporary policy. Exploration of current proposals and issues. Letter grading.

M266. Advanced Topics in Health Economics. (4) (Same as Health Policy and Management M248E.) Seminar, four hours. Requisites: Health Policy and Management 200A, 200B, M236. Advanced treatment of a variety of health economics topics, including mental health economics, pharmaceutical economics, and relationship between labor supply, welfare, and health. Letter grading.

M267. Medicare Reform. (4) (Same as Health Pol icy and Management M252.) Lecture, three hours; outside study, nine hours. Limited to graduate students. Examination of analytical and managerial skills learned earlier to be used to analyze problems with existing medici-nar program and to develop specific options for reform. Survey of various options to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.


M269. Healthcare Policy and Finance. (4) (Same as Health Policy and Management M268.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insur-ance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and consumer protection move-ment, and rise of competitive healthcare markets. 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 disadvan-taged populations. In first half of course, major theo-ries of low-skill workers’ labor market problems in em-ployment and wages; in second half, employment and training programs, policy initiatives and implementa-tion, and new directions in workforce development. Letter grading.


C274. U.S. National Security Policy. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. Examination of U.S. national security challenges and how policymakers develop strategies to address them. Exploration of Cold War legacy, development of American national security strategy, strategic defense policy-making process from 1945 to present. Examination of broad spectrum of issues confronting today’s foreign policy.
M296. Law and Poor. (4) (Same as Social Welfare M290R and Urban Planning M248.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and administration. Current reform consensus and major reforms. Letter grading.

297A. Marschak Colloquium: Policy Implications in Behavioral Sciences. (2) Seminar, two hours. Limited to graduate students. Students attend biweekly Marschak colloquium presentations given by leading social science experts. Analysis and discussion of lecture topics and research models in behavioral sciences in this highly regarded and long-standing interdisciplinary lecture series that meets separately from colloquium presentations. Letter grading.

297B. Introduction to Public Policy. (2) Lecture, three hours; discussion, one hour. Designed for graduate students. Introduction to purposes and methods of public policy analysis. Exposure to key concepts and tools, such as market failures, decision analysis, cost-benefit analysis, group behavior, and implementation. Case studies supplement lectures and texts. S/U grading.

297C. Public Policy Analysis Lectures. (2) Activity, two hours. Limited to M.P.P. students. Venice for policymakers, practitioners, and academics to present, discuss, and analyze current policy questions. Attendees, formally analyzing, and engaging with policy professionals at these extra-curricular programs adds to pedagogical and intellectual maturity of students as they gain greater understanding of complexity of public policy issues by hearing wide variety of voices. S/U grading.

298A. Applied Policy Project I. (2) Seminar, 90 minutes; outside study, four and one half hours. Requisite: course 210. Limited to M.P.P. students. First course of year-long sequence designed to ensure that students and their teams are fully prepared to launch their projects at start of Winter Quarter. Students form teams that are assigned to seminars and instructors, identify clients, select and refine policy questions motivating their projects, develop and refine basic work plans, learn about various methods of data collection, and complete and submit all necessary forms required for human subjects research. S/U grading.

298B. Applied Policy Project II. (6) Seminar, three hours; outside study, 15 hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298A. Second course in three-term sequence in which students prepare major public policy projects and papers that are case studies of policy evaluation and implementation and are equivalent to professional master’s theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

298C. Applied Policy Project III. (2) Seminar, two hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Third course in three-term sequence in which students complete research and report writing for their year-long projects, oral presentations of their applied policy projects, and give written feedback on other student presentations. Letter grading.

297C. Public Policy Analysis Lectures. (2) Activity, two hours. Limited to M.P.P. students. Venice for policymakers, practitioners, and academics to present, discuss, and analyze current policy questions. Attendees, formally analyzing, and engaging with policy professionals at these extra-curricular programs adds to pedagogical and intellectual maturity of students as they gain greater understanding of complexity of public policy issues by hearing wide variety of voices. S/U grading.

298A. Applied Policy Project I. (2) Seminar, 90 minutes; outside study, four and one half hours. Requisite: course 210. Limited to M.P.P. students. First course of year-long sequence designed to ensure that students and their teams are fully prepared to launch their projects at start of Winter Quarter. Students form teams that are assigned to seminars and instructors, identify clients, select and refine policy questions motivating their projects, develop and refine basic work plans, learn about various methods of data collection, and complete and submit all necessary forms required for human subjects research. S/U grading.

298B. Applied Policy Project II. (6) Seminar, three hours; outside study, 15 hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298A. Second course in three-term sequence in which students prepare major public policy projects and papers that are case studies of policy evaluation and implementation and are equivalent to professional master’s theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

298C. Applied Policy Project III. (2) Seminar, two hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Third course in three-term sequence in which students complete research and report writing for their year-long projects, oral presentations of their applied policy projects, and give written feedback on other student presentations. Letter grading.

Scope and Objectives
The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Reagan UCLA Medical Center, Santa Monica UCLA Medical Center, West Los Angeles VA Medical Center, Providence Holy Cross Medical Center in Santa Clarita and Mission Hills, and Children’s Hospital of Los Angeles and include the Divisions of Brachytherapy, Clinical and Molecular Oncology, and Medical Radiation Physics. Laboratory, clinical, and translational research are facilitated at all locations.

The primary clinical mission of the department is the management of patients who have cancer. The purpose of using radiation therapy, rather than or in addition to surgery, is to preserve function and/or cosmesis while eliminating the cancer. Other activities include total body irradiation before bone marrow transplantation, stereotactic body radiotherapy, brachytherapy, and stereotactic radiosurgery for A-V malformations, meningiomas, and malignant intracranial lesions. Research interests include clinical trials, radiation biology, radiation modifiers, molecular biology, immunology, and applied physics. Knowledge of the disease in question, the comparative efficacy of radiation therapy and other methods, radiation biology and pathophysiology, and the physical characteristics of various radiations is essential.

The educational programs serve medical, dental, basic science (biology and physics), nursing, and radiation therapy students, and community and postgraduate physicians; there also is a four-year program for residents who are qualifying for certification in radiation oncology by the American Board of Radiology.

For further details on the Department of Radiation Oncology and a listing of the courses offered, see http://radonc.ucla.edu.
**Religion, Study of / 587**

**Religion, Study of**

**Interdepartmental Program**

**College of Letters and Science**

UCLA
376 Humanities Building
Box 951511
Los Angeles, CA 90095-1511

(310) 825-4165
e-mail: estchang@humnet.ucla.edu
http://www.religion.ucla.edu/index.php/

Students/major

Carol A. Bakhos, Ph.D., Chair

Faculty Committee
Carol A. Bakhos, Ph.D. (Near Eastern Languages and Cultures)
S. Scott Bartsch, Ph.D. (History)
Ra’anan S. Boustan, Ph.D. (History, Near Eastern Languages and Cultures)

**Study of Religion B.A.**

**Capstone Major**

**Preparation for the Major**

**Required:** Study of Religion M4 or 11, and two courses from Ancient Near East 10W, Anthropology 9, Asian M60, History 1A, 1B, 1C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M61, M61W.

**Transfer Students**

Transfer applicants to the Study of Religion major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one history of religions course, one philosophy of religion course, and two courses from sociocultural anthropology, Buddhism, history of Western civilization, Asian civilizations, civilizations of Africa, and history of China.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**


Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion. During their senior year students must complete the capstone seminar, Study of Religion 191.

A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. A maximum of two upper division courses in an ancient language relevant to the course of study may be applied toward the major requirements with consent of the adviser.

A maximum of 12 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. Each course for preparation for the major and the major must be taken for a letter grade.

**Honors Program**

The honors program provides exceptional students with an opportunity to do independent research under the tutorial guidance of a faculty member. Students admitted to honors should take three Study of Religion 198 courses under the guidance of the sponsoring professor. The first 198 course should be taken in Spring Quarter of the junior year, the second during the following Fall Quarter, and the third during Winter Quarter of the senior year. The three courses count as part of the regular requirement of 12 upper division courses. The program culminates in an honors thesis.

To qualify for admission students should have a minimum grade-point average of 3.4. The 198 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.
For further information, contact the student af-
ffairs officer or the faculty adviser at the program
address.

Study of Religion

Lower Division Courses

M4. Introduction to History of Religions. (5)
(Same as History M4.) Lecture, three hours; dis-
cussion, two hours. Comparative study of eight major reli-
gious traditions, with emphasis on their beginnings and
subsequent changes in their respective historical
developments and interactions. Equips stu-
dents with intellectual tools necessary for thinking an-
alytically, empathetically, and comparatively about fac-
shing human phenomena identified as religious,
such as sacred acts, places, words, and persons in
their varied historical contexts. Development of stu-
dent skills in critical thinking, analyzing documents,
and making persuasive arguments based on histori-
cal evidence. P/NP or letter grading.

M10. Social, Cultural, and Religious Institutions of
Judaisms. (5) (Same as Jewish Studies M10.) Lec-
ture, three hours; discussion, one hour. Judaism's ba-
sic beliefs, institutions, and practices. Topics include
development of biblical and rabbinic Judaism; con-
cepts of god, sin, repentance, prayer, and the messi-
ah; history of Talmud and synagogue; evolution of folk
beliefs and year-cycle and life-cycle practices. P/NP
or letter grading.

11. Religions of Los Angeles. (4) Lecture, four
hours. Introduction to varieties of religious experience
in Los Angeles and its environs. Presentations, re-
quired readings, and (where possible) site visits to ex-
amine selected faiths and spiritual practices through-
out Southern California and provide deeper under-
standing of myriad ways that sacred is manifest and
cultural and academic orientations within study of religion (anthropological, histori-
cal, psychological, sociological, etc.) used as frame-
work to examine and interpret almost unparalleled re-
ligious diversity of City of Angels. Recognizing that
spiritual traditions are crucial reflection of region's
ever changing demographics, emphasis on role of eth-
nicity, gender, race, and roles of race in shaping of reli-
gious landscape. P/NP or letter grading.

M40. Christianities East and West. (5) (Same as
Slavic M40.) Lecture, three hours; discussion, one hour.
Survey of three major historical branches of Chris-
tianity: Eastern and Orthodox, Roman Catholicism,
and Protestantism, contrasting how history, dogma,
culture, and community structures de-
velop in those three traditions. P/NP or letter grading.

(Same as Middle Eastern Studies M50.) Lecture,
three hours; discussion, one hour. Examination of three
major monotheisms of Western cultures — Ju-
daisms, Christianity, and Islam — historically and com-
paratively. Developmental stages, teachings and ritual prac-
tices of each tradition up to and including medieval peri-
od. Composition and development of various sacred
texts, highlighting key themes and ideas within dif-
ferent historical and cultural stages of tradition, such as me-
chanisms of revelation, struggle for religious au-
thority, and common theological issues such as origin of

M60A. Introduction to Buddhism. (5) (Same as
Asian M60.) Lecture, three hours; discussion, one hour.
Not open for credit to students with credit for course M60W.
Knowledge of Asian languages not re-
quired. General survey of development of Buddhism in
India, with focus on those religious doctrines and meditative practices most essential to various Asian
traditions of Buddhism. Letter grading.

M60B. Introduction to Chinese Religions. (5)
(Same as Asian M60B.) Lecture, three hours; dis-
cussion, one hour. Not open for credit to students with
credit for course M61W. Knowledge of Chinese not
required. General survey of religious life in China, with
emphasis on everyday religious practice over doc-
trine, and themes common to Buddhism, Daoism, and
Confucianism. P/NP or letter grading.

M60C. Introduction to Korean Religions. (5)
(Same as Korean M60.) Lecture, three hours; discus-
sion, one hour. Knowledge of Asian languages not re-
quired. General survey of history of religions in Korea — Shintoism, Confucianism, Daoism, Buddhism,
Christianity, Tonghak, and some new religions — with
focus on religious doctrines, practices, Korean char-
acteristics, and social impacts. P/NP or letter grading.

M60D. Religion in Classical India: Introduction.
(Same as South and Central Asia M60D.) Lecture,
three hours; discussion, one hour. Introduction to religions of clas-
cical India — Vedica, Brahmanical, Hindu, Jain, and
Buddhist — paying equal attention to change and
continuity, with emphasis on chronologica
development. P/NP or letter grading.

M60E. Religious Traditions in Southeast Asia. (4)
(Same as Southeast Asian M60.) Lecture, three hours.
Introduction to historical development and con-
temporary practice of religions in Southeast Asia.
Examination of indigenous religious beliefs and meditative prac-
tices most essential to various Asian traditions of Bud-
dhism. Particular attention to problems involved in
study of religion. Satisfies Writing II requirement. Let-
er grading.

M61. Introduction to Zen Buddhism. (5) (Same as
Asian M61.) Lecture, three hours; discussion, one hour.
Knowledge of Asian languages not required. In-
troduction to Zen traditions and to interplay between Zen and other fundamental cultural and religious con-
cerns in East Asia. Topics include role of Zen within
Buddhist thought and practice, artistic and literary arts,
society, and daily life. Letter grading.

M61W. Introduction to Chinese Religions. (5)
(Same as Chinese M61W.) Lecture, three hours; dis-
cussion, one hour. Enforced requisite: English Com-
position 3 or 3H or English as a Second Language 36.
Not open for credit to students with credit for course M60B.
Knowledge of Chinese not required. General survey of
religious life in China, with emphasis on ev-
yday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism.
Satisfies Writing II requirement. Letter grading.

Upper Division Courses

101. History of Study of Religion. (4) Lecture,
four hours. Recommended requisite: History 4. Survey of
major modern theories, methods, and approaches to study of religion to situate them within their own his-
torical, philosophical, and social contexts. Critical con-
sideration of changing and contested meanings of
term religion and its relationship to such categories as
science and magic as well as to other domains of so-
cial experience. Examination of how study of religion
has interacted with other academic fields, especially
biblical studies, anthropology, sociology, psychology,
and evolutionary biology. P/NP or letter grading.

105A. Religion in Ancient Israel. (4) (Formerly
numbered 100.) Seminar, three hours. Interdisciplin-
ary approach to some major topics in study of religion,
such as religion and politics, mysti-
cism, and relationship of revelation, myth and religion, worship and ritual. May be repeated for credit on consent of
instructor. P/NP or letter grading.

105C. Baha'i in Contemporary Iran. Role of
Baha'i in fabric of Persian society as agents of mod-
ern education and communal service.

105A. Modern Islamic Religious Studies (Same as
History M106A.) Lecture, three hours; discussion,
one hour (when scheduled). Designed for juniors/seniors. Ex-
amination of early development of Islam with special at-
tention to doctrine of nature of human respon-
sibility, guidance, revelation and religious authority,
duties of believers, ritual, law, sectarian movements,
mysticism, and popular religion. P/NP or letter grad-
ing.

105B. Religion and Society in Modern Middle
East. (4) (Same as History M106B.) Lecture, three
hours; discussion, one hour (when scheduled). De-
signated for juniors/seniors. Redefinition of religion in
Meso-America as an emergent concept in religious
movements, and transformation of meaning and function of religion in society. P/NP or letter grading.

109. Introduction to Islam. (5) (Same as Islamics
M110.) Lecture, three hours; discussion, one hour. Gen-
esis of Islam, its doctrines, and practices, with readings from Qur'an and Hadith; schools of law and
theology; piety and Sufism; reform and modernism. P/
NP or letter grading.

110. Religion and Violence. (4) Seminar, three
hours; discussion, one hour. Exploration of capacity of
religion to mobilize and legitimize violence. Materials
include theoretical texts by Rene Girard, Walter Burk-
ert, Jonathan Z. Smith, and others. Case studies dealing with religion and violence in India, Northern
Ireland, Iran, 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, Chris-
tians, and Muslims according to rubrics of linkage and
interaction, with view both to potential clashes in the
21st century and to recommitted tradi-
tions for heading off such clashes and misunder-
standings. Letter grading.

132. Ancient Egyptian Religion. (5) (Same as An-
cient Near East M132.) Lecture, three hours; dis-
cussion, one hour. Introduction to religious beliefs, prac-
tices, and sentiments of ancient Egypt to study Egyp-
tian religion as coherent system of thought and
sphere of action that once served as meaningful and
relevant framework for understanding physical reality and
human life for inhabitants of Nile Valley. General
principles as well as developments through time (cir-
a 3000 B.C. to 300 C.E.). Topics include mythology, tec-
cracy, magic, and personal piety. P/NP or letter
grading.

135. Religion in Ancient Israel. (Same as An-
cient Near East M135.) Lecture, three hours. Intro-
duction to survey of various ancient Jewish religious
beliefs and practices, their origin, and development,
with special attention to diversity of religious practice
in ancient Israel and Canaan during 1st millennium B.C.E. P/NP or letter grading.

140. Undergraduate Seminar: Study of Religion.
(4) (Formerly numbered 100.) Seminar, three hours.
Interdisciplinary approach to some major topics in
study of religion, such as religion and politics, mysti-
cism, and relationship of revelation, myth and religion,
worship and ritual. May be repeated for credit with consent of
instructor. P/NP or letter grading.

142C. History of Religion in U.S. (4) (Same as
History M142C.) Lecture, three hours; discussion,
one hour (when scheduled). Designed for juniors/se-
niors. Consideration of religious dimension of peo-
live's experience in U.S. Examination of number of re-
ligious traditions that have been important in this con-
text, with emphasis on religious movements in
religion to other aspects of American culture. P/NP or letter
grading.

150. Women, Gender, and Religion. (4) Lecture,
four hours. Examination of roles, status, and representa-
tions of women and gender in one or more religious traditions. Examination of how cultural conceptions of gender as well as social reali-
ties (as far as they can be known) for women and men in part-
icular historical periods shape and are shaped

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by these religious traditions, including discussions re-
M161A. Chinese Buddhism. (4)
current within media studies. P/NP or letter grading.
approaches used in concert with various methodologies
Historical, sociological, and anthropological ap-
conflict, religious education, and use of media tech-
vision and aural piety, identity formation, interreligious
renunciation, religious authority, marriage and family
of Buddhism, Korean syntheses of imported Buddhist
tween indigenous Korean culture and Sinitic traditions
development of Buddhism in Korea, interactions be-
 imitation from antiquity to present. P/NP or letter
pretation from antiquity to present. P/NP or letter

M161B. Japanese Buddhism. (4)
Knowledge of Chinese not required. Introduction and
between Buddhism and Chinese culture, rise of Chinese
schools of Buddhism. Letter grading.

M161C. Korean Buddhism. (4)
Knowledge of Chinese not required. Introduction and
tween indigenous Korean culture and Sinitic traditions of
Buddhism, Korean syntheses of imported Buddhist
theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Letter grading.

M161D. Buddhism in India. (4)
Knowledge of original languages not required. Bible

M173C. Shinto, Buddhism, and Japanese Folk Reli-
(4) Same as History M173C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social structure of various Ways, great and little: Shinto's connection with cultural nationalism, Buddhism's medieval Reformation and Zen's relation to warrior culture, folk religious aspects such as shamanism, ancestor worship, and millenarianism. P/NP or letter grading.

M174D. Indo-Islamic Interactions, 700 to 1750. (4)
Same as History M174D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of social and doctrinal history of Buddhism in its cultural context, with emphasis on key ideas and teachings. Letter grading.

M174E. Indo-Islamic Interactions, 1750 to 1950. (4)
Same as History M174E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Interplay of factors that, from Christian missionaries to Islamic madrasa schools and colonial rebellions, gave shape to multifaceted Muslim religious life in context of colonial modernity. P/NP or letter grading.

177. Variable Topics in Religion. (4)
180. Religion and Modern Critical Thought. (4)
Examination of how various traditions of modern thought inform academic study of religion, with primary focus on philosophical analysis of religious belief and practice and its relation to other areas of theoretical discussion, such as philosophy of language, discourse analysis, epistemology, metaphysics, ethics, practice theory, and political theory. Topics may include religious and civil liberties, epistemological status, embodiment and religious self, relationship between knowledge, faith, and doubt, nature and function of religious language, relationship between science and religion, and relations between religious and secular in modernity. P/NP or letter grading.

182A. Ancient Jewish History from Patriarchs to Rabbis. (4)

M182B. Between Crescent and Cross: Jewish Middle Ages. (4)
Knowledge of Chinese not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Sinitic traditions of Buddhism, Korean syntheses of imported Buddhist theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Letter grading.

M182A. Ancient Jewish History from Patriarchs to Rabbis. (4)
Same as History M182B and Jewish Studies M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4)
Same as History M184A and Jewish Studies M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to exhaustion of Jews from Spain in 1492. P/NP or letter grading.

M186A. History of Early Christians. (4)
Same as History M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Christian movement from its origins to circa 160 C.E., stressing its continuity/discontinuity with Judaism, various responses to Jesus of Nazareth, writings produced during this period, movement's encounters with its religious, social, and political world, and methods of research. P/NP or letter grading.

M186B. Religious Environment of Early Chris-
tions. (4)
Same as History M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rich variety in religious practices and thought in Mediterranean world of 1st century C.E. as in context of developing Christian movement. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysteries, astrology, gnosticism, and emperor-worship. P/NP or letter grading.

M186C. Jesus of Nazareth in Historical Research. (4)
Same as History M186C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M184B. Designed for juniors/seniors. Stimulated by significant post-Enlighten-
ment historical evaluations, students are led into firsthand knowledge (in translation) of various multi-
layered sources for reconstruction of life, teaching, and initial impact of Jesus of Nazareth in his social, economic, political, and religious contexts. P/NP or letter grading.

Preparation: completion of preparation for major courses and at least half of upper division courses required for major (including theory and method courses). Designed for se-

Scope and Objectives
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 complet-
ing their college education. The ROTC curricula are not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course require-
ments of a major. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four- and three-year programs for freshmen and sophomores. The Army and Navy/Marine Corps also offer a two-year program for current and transfer students. All have leadership laboratories that teach leadership and management skills.

All commissions are reserve commissions. Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty.

Scholarships

ROTC Scholarships are awarded on a competitive basis to U.S. citizens regardless of parents' income. Scholarships provide tuition, a book allowance, fees, and a tax-free monetary allowance between $300 and $500 per month during the academic year. Applications for scholarships may be obtained at http://www.afrotc.com or by calling (310) 825-1742. Completed applications should be submitted prior to August 15 for early consideration and no later than December 1 of the year preceding college matriculation.

Air Force ROTC Program

Air Force ROTC 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 the ability to apply modern principles of management and human relations in the Air Force environment, and mastering of leadership theory and techniques. Students must demonstrate dedication to their assignments, willingness to accept responsibility, and the ability to think critically and communicate with clarity and precision.

Undergraduate Study

The Air Force ROTC program is available to full-time students with at least three years of undergraduate and/or graduate study remaining and consists of one to two years of the General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 20A, 20B, and 20C), followed by a two-year Professional Officer Course, or POC (Aerospace Studies 130A, 130B, 130C, 140A, 140B, and 140C). For students completing the program in four years, GMC participation requires one hour of academic class and two hours of leadership laboratory each week during the academic year. For students completing the program in three years, GMC participation requires taking one course from Aerospace Studies 1A, 1B, or 1C, one course from 20A, 20B, or 20C, and two hours of leadership laboratory each week during the academic year. Students incur no military obligation for GMC participation unless they qualify and accept an Air Force ROTC Scholarship during or after their sophomore year.

Students who complete the GMC and wish to enter the POC attend a four-week field training course the summer following GMC completion.

There is no obligation to apply. U.S. citizenship is required. Students are selected on a competitive basis with consideration given to academic major, grade-point average, aptitude examination scores, performance during an officer board interview, and a physical fitness test. Students selected for summer field training 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.

POC participation requires three hours of academic class and two hours of leadership laboratory each week during the academic year. Students enrolled in the POC incur a military obligation and are paid from $450 to $500 per month during the academic year. Graduation and successful completion of the POC leads to a commission as a second lieutenant. Cadets then report to one of the challenging assignments in the Air Force.

Aerospace Studies

Lower Division Courses

Freshman-Year Courses

- A. Leadership Laboratory. (No credit) (Formerly numbered Z.) 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 with emphasis on refinement of organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty. P/NP grading.
- Foundation of U.S. Air Force. (2-2-2) Lecture, one hour. Survey course designed to introduce students to U.S. Air Force and Air Force Reserve Officers' Training Corps. Topics include mission and organization of Air Force, officer and professional skills, military customs and courtesies, Air Force officer opportunities, group leadership problems, and introduction to communication skills. P/NP or letter grading.

Sophomore-Year Courses

- Evolution of U.S. Air Force Air 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

- Air Force Leadership Studies. (4-4-4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Study of leadership and management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of Air Force junior officers. 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.

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All three ROTC departments offer voluntary four- and three-year programs for freshmen and sophomores. The Army and Navy/Marine Corps also offer a two-year program for current and transfer students. All have leadership laboratories that teach leadership and management skills.

All commissions are reserve commissions. Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty. The Army offers both active- and reserve-duty opportunities directly after commissioning.
Scholarships

ROTC Scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships provide full tuition or housing (on or off campus) up to $10,000, a $1,200 allowance for books and fees, and a tax-free monetary allowance between $300 and $500 per month during the academic year. Applications for four-year scholarships may be obtained at http://www.goarmy.com/rotc.html, by calling (310) 825-7381, or by e-mail to army.rotc@milscl.ucla.edu. Completed four-year applications should be submitted by January 10 of the year preceding college matriculation. Two- and three-year scholarship applications may be obtained from the UCLA Military Science Department and are considered when received.

Army ROTC Program

Army ROTC is a program that enables students to become officers in the U.S. Army, Army Reserves, or Army National Guard while earning a college degree. The curriculum supplements students’ academic majors by offering elective courses ranging from leadership and management to military law. Courses are augmented with leadership laboratories that stress practical skills such as first aid, land navigation, survival techniques, rappelling, military tactics, and scenario-driven leadership reaction courses. Non-ROTC students may enroll in many of the military science courses without enrolling in the ROTC program.

Additionally, students who decide to become Army officers can receive summer training in military parachuting (Airborne School at Fort Benning, GA), helicopter operations that include rappelling from a hovering helicopter (Air Assault School in Hawaii), and mountaineering operations (Northern Warfare School in Alaska).

Scholarships are available for two, three, and four years of academic study and are awarded on a competitive basis. Army Scholarships pay for full tuition and mandatory fees or housing, up to $10,000, and provide a tiered stipend ranging from $3,000 to $5,000 per year and a $1,200 book allowance. Nonscholarship students must also be under a contracted obligation to the Army ROTC and directly enter the Advanced Course. Placement credit may be given for completing three years of high school Junior ROTC, attending a paid ROTC Leaders’ Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service. The Army also allows enrollment in the two-year program while students attend graduate school.

Commissioning

Successful completion of the Advanced Course program and a bachelor’s degree may lead to a commission as a second lieutenant in the Army Reserves, National Guard, or Active Army.

Military Science

Lower Division Courses

2. Leadership Laboratory. (No credit) Laboratory three hours (lower division cadets) or four hours (upper division cadets). All cadets must be concurrently enrolled in a military science course; upper division cadets must also be under a contracted obligation with department. Designed to allow cadets to apply leadership techniques and military skills taught in classroom and to develop their confidence as future military officers. No grading.

11. Foundations of Officership. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer’s responsibilities. Framework established to understand officership, leadership, military customs, briefings, military writing style. Broad overview of life in Army. P/NP or letter grading.

12. Basic Military Leadership. (2) Lecture, one hour. Requisite: course 11. Introduction to fundamentals of leadership, Army leadership values, ethics, and counseling techniques. Foundation of basic leadership fundamentals central to commissioned officer’s responsibilities established. P/NP or letter grading.


14. Principles of Land Navigation Applicable in Maneuver. (2) Lecture, one hour. Discussion; one hour. Introduction to topographic maps and aerial photographs and their relationship; 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. Individual Leadership Development. (3) Lecture, two hours. Introduction to various individual leadership personality types, how leadership personality type influences leadership style. Prior to completion of the ROTC program, students may request to go on active duty or serve part-time in the Army Reserves or National Guard.

Undergraduate Study

Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-unit course per term and physical fitness sessions one to three times per week, depending on the participation-level requirements.

The military science curriculum is divided into two parts: (1) the Basic Course, two years of lower division study during which students must complete six military science courses and (2) the Advanced Course, two years of upper division study consisting of six military science courses, one military history course, and a five-week summer camp.

Army ROTC students must satisfy the military history requirement by completing Military Science 110 or another history course approved by the chair.

Transfer students and others who were unable to enroll in the Basic Course can receive equivalent credit in several different ways (see Two-Year Program below).

Admission to the Advanced Course is limited to selected students who meet all academic and physical requirements. Students in this course receive a subsistence allowance between $450 and $500 a month for 10 months during each of the two academic years, plus military science uniforms. After completion of the Advanced Course and graduation, students have the opportunity to be commissioned as second lieutenants in one of the Army’s 16 specialty areas in either the Army National Guard, Reserves, or Active Army. Students’ preferences are a major factor in determining which specialty is awarded.

Students selected for Advanced ROTC must attend a five-week leadership development and assessment course between their Military Science III and IV years. Cadets receive an allowance for travel expenses and are paid for attendance.

The active duty obligation for those students selected to enter the Reserves or National Guard is for initial training, and only for a period of several months. The active duty obligation for those students commissioned into the Active Army is three years. Students who accept ROTC scholarships and enter the Active Army serve one additional year. ROTC students wishing to obtain certain advanced degrees may be granted a delay in reporting to their initial assignment.

Four-Year Program

Students are enrolled in the Basic Course (freshman and sophomore years) on a voluntary basis. After completion of the Basic Course and before entrance into the Advanced Course (junior and senior years), students are required to execute a contract with the Department of the Army agreeing to complete the Advanced Course and accept a commission if offered.

Two-Year Program

The two-year program is designed for students who receive placement credit for two years of Army ROTC and directly enter the Advanced Course. Placement credit may be given for completing three years of high school Junior ROTC, attending a paid ROTC Leaders’ Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service. The Army also allows enrollment in the two-year program while students attend graduate school.
lecture, discussion, and experiential learning, with fo-
cus on written communication and group communica-
tion. Three hours; laboratory, four hours. Examination of
how to conduct individual and small unit training as well as
introduction to basic principles of tactics. Emphasis on
study of reasoning skills, troop leading procedures,
and military orders process. P/NP or letter grading.

131. Tactical Planning and Analysis. (4) Lecture,
three hours; laboratory, four hours. Introduction to
leadership development processes used to evaluate mil-
itary leadership performance. Examination of how
to conduct individual and small unit training as well as
introduction to basic principles of tactics. Emphasis on
study of reasoning skills, troop leading procedures,
and military orders process. P/NP or letter grading.

132. Army Officership and Communication. (4)
Lecture, three hours; laboratory, four hours. Examina-
tion of officerhip that culminates in detailed case
study. Interpersonal communication, with focus in
general communication theory as well as written and
spoken communication skills. Presentation of infor-
mation briefing to receive feedback from both instruc-
tor and fellow students. P/NP or letter grading.

133. Leadership and Problem Solving. (4) Lecture,
three hours; laboratory, four hours. Examination of
role communications, values, and ethics play in effec-
tive leadership, including ethical decision making,
consideration of others, transactional and transfor-
mational leadership, and survey of Army leadership doc-
trine. Emphasis on improving oral and written commu-
nication abilities and leadership development and as-
sessment. P/NP or letter grading.

141. Leadership and Management. (4) Lecture,
three hours; laboratory, four hours. Interactive course
to develop student proficiency in planning and execut-
ing complex training operations. Counseling tech-
niques and development of skills needed to lead vari-
ous organizations. Exploration of training manage-
ment, leadership skills, and developmental counseling
techniques. P/NP or letter grading.

142. Leadership, Ethics, and Military Law. (4)
Lecture, three hours; laboratory, four hours. Interactive
course to enhance student understanding of organi-
zational culture, leadership, and ethics. Understanding
and enhancement of member-matter relations, as-
sessment of organizational culture and ethical cli-
nate, and how to effect change in organizations.
Exploration of foundations of military law and law of
war. P/NP or letter grading.

143. Officership: Professional Military Leadership.
(4) Lecture, three hours; laboratory, four hours. Cap-
stone interactive leadership course to prepare stu-
dents for challenges of being commissioned officers
in U.S. Army by discussing various leadership chal-
lenge and case studies. Study of military units,
with specific emphasis on joint operations involving Army,
Navy, Air Force, and Marine Corps assets, military op-
erations other than war, and global war on terror. Oth-
er topics include personnel administration, mainte-
nance management, and financial planning. P/NP or
letter grading.

197. Individual Studies in Military Science. (2 to
4) Tutorial, four hours. Limited to juniors/seniors. Indi-
vidual intensive study, with scheduled meetings to be
arranged between faculty member and student. As-
signed reading and tangible evidence of mastery of
subject matter required. May be repeated for credit.
Individual contract required. P/NP or letter grading.

ROTC PROGRAM – NAVAL SCIENCE

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Jarred M. Herman, B.S., Lieutenant, U.S. Navy
Matthew J. Mowad, M.S., Commander, U.S. Navy

Scope and Objectives
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sion Reserve Officers’ Training Corps (ROTC)
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ify for an officer’s commission in the Army,
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are not considered academic majors, but
ROTC courses may be taken as free electives
and applied toward the total course require-
ments of a major. The Naval Science Depart-
ment offers a minor in Naval Science.
All three ROTC departments offer voluntary
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and sophomores. The Army and Navy/Marine Corps
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tive basis to U.S. citizens regardless of parents’
income. Scholarships provide tuition, a book al-
lowance, fees, and a tax-free monetary allow-
ance between $250 and $400 per month during the
academic year. Applications for scholar-
ships may be obtained at https://www.nrotc
.navy.mil or by calling (800) 628-7682. Com-
pleted applications should be submitted prior to
August 15 for early consideration and no later
than January 31 for the fall term. Two-year scholar-
ship applications may be obtained from the
UCLA Naval Science Department and are
considered when received.

Navy/Marine Corps ROTC Program
The Department of Naval Science provides
professional training for students leading to an
active duty commission at graduation in the
U.S. Navy or Marine Corps. Through the Naval
Reserve Officers’ Training Corps (NROTC),
scholarship students receive full tuition, books,
and subsistence pay of $250 to $400 per
month. Nonscholarship students may apply
to participate as members of the midshipman
battalion under the NROTC College Program
and, like NROTC Scholarship students, they
also receive an active duty commission at grad-
uation. Because of the rapid development of
highly technical ship systems, aviation, and
other military equipment, science and engi-
neering majors are highly desirable. However,
Navy/Marine Corps Scholarships are currently
available to students pursuing any major of-
fered by the University, as long as they agree to
complete basic technical requirements. In addi-
tion to University requirements, Navy option
midshipmen must complete 26 units and Ma-
rine Corps option midshipmen 18 units of naval
science courses, physical fitness test, and sum-
mer training cruises, each about four to six
weeks long. Both Navy and Marine Corps op-
tion students must also pass a swimming test.
The department also conducts a sail training
program for all Navy midshipmen. All naval sci-
cence 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 engi-
neering, navigation and naval operations, his-
tory, and management.
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 (11 units):**

- Naval Science 1B, 20A, 20B.

**Required Upper Division Courses (20 units):**


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

Each minor course must be taken for a letter grade, 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. 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. (3) Lecture, three hours. Introduction to organization of Naval Service, various components of Navy, career opportunities, shipboard damage control, fire fighting, Naval and Marine Corps operations, and some customs and traditions of Naval Service. Letter grading.

1B. Naval Ship Systems I. (4) Lecture, four hours. Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability and buoyancy. P/NP or letter grading.

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 system and analysis of transfer and feedback functions inherent in weapon systems.

20B. Seapower and Maritime Affairs. (3) Lecture, three hours. Conceptual study of seapower, with emphasis on historical development of naval and commercial power. Seapower examined in relation to economic, political, and cultural strengths, with focus on current abilities of specific nations to use oceans to attain national objectives. P/NP or letter grading.

**Upper Division Courses**


102B. Naval Leadership and Management I. (4) Examination of current and classical leadership and management theories, with emphasis on their application to junior military officer's role as a leader/manager. Topics include managerial functions, performance appraisal, motivation theories, group dynamics, leadership theories, and 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.

197. Individual Studies in Naval Science. (1 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
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 and Cultures 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

Transfer applicants to the Scandinavian Languages major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of either Swedish, Norwegian, or Danish. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Scandinavian 105 or 106 or 107; 10 courses from the following five tracks, with at least one course in each track: (1) early Nordic literatures and cultures — Scandinavian C131, C132, C133A, C137, 138; (2) theory, genres, and authors — Scandinavian C141A, C141C, C142A, C143A, C145A, C145B, C146A, C147A, C147B; (3) literary periods — Scandinavian 152, 153, 156, 157; (4) Scandinavian cinema — Scandinavian 161, 163A, C166A, C166C; (5) cultural studies — Scandinavian C171, C174A, C174B, C175; and three Scandinavian 187FL courses, taken in conjunction with any upper division course applied toward the major.

As an option, four upper division courses in a related field may be taken if approved in advance by the undergraduate adviser. In general, the courses must include significant content related to the Nordic region. It is recommended that students who plan to do graduate work in Scandinavian take German 1 through 6.

Scandinavian Minor

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

Required Courses (28 units): Any seven Scandinavian courses, two of which may be lower division courses selected from Scandinavian 1 through 50.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa/library/pgmqrintro.htm. 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.


6. Intermediate Swedish: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in Swedish equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

7. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.


12. Elementary Danish. (4) Discussion, four hours. P/NP or letter grading.


17. Elementary Finnish. (4) (Formerly numbered 130.) Lecture, three hours. Introduction to standard language of Finland. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


19. Modern Icelandic. (4) (Formerly numbered Old Norse Studies 153.) Lecture, three hours. Grammar, readings, and conversation. P/NP or letter grading.

20. Heroic Journey in Northern Myth, Legend, and Epic. (4) (Formerly numbered Old Norse Studies 40.) Lecture, three hours. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folktale, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backgrounds to texts. 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. Designed for students in general and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selectors works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folktale through modern novel, poem, play, short story, and film, read in English and critically discussed. P/NP or letter grading.

50W. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. 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 folktale through modern novel, poem, play, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. Letter grading.

Upper Division Courses


C131. Introduction to Viking Age. (4) (Formerly numbered Old Norse Studies C131.) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Eddas. Concurrently scheduled with course C231. Letter grading.

C132A. Elementary Old Norse. (4) (Formerly numbered Old Norse Studies C132A.) Lecture, three hours. Introduction to grammar and pronunciation of Old Norse. Selected readings from sagas and Prose Edda. P/NP or letter grading.

C132B. Intermediate Old Norse. (4) (Formerly numbered Old Norse Studies C132B.) Lecture, three hours. Requisite: course 132A. Grammatical analysis, pronunciation, and readings from Eddas and sagas of Icelanders, Norwegian kings, and legendary heroes. P/NP or letter grading.

C132C. Advanced Old Norse. (4) Lecture, three hours. Enforced requisite: course 132B. Readings from variety of Old Norse-Icelandic texts. Continuation of development of translation skills, as well as familiarity with Old Norse-Icelandic texts and philological, linguistic, literary, and cultural issues surrounding their interpretation. P/NP or letter grading.

C133A. Saga. (4) (Formerly numbered Old Norse Studies C133A.) Seminar, three hours. Sagas are largest extant medieval prose literature. Texts in English, with selections from different types of Icelandic sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C233A. Letter grading.

C137. Old Norse Literature and Society. (4) (Formerly numbered Old Norse Studies C145.) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C237. Letter grading.
182. Vikings. (5) (Formerly numbered Old Norse Studies 135.) Lecture, three hours; discussion, one hour. Survey of Viking age, mythology, history, and archeology of Viking age society. Readings drawn on medieval sagas as well as secondary material, focus on impact of Vikings on northern Europe, and consider ways in which European and Scandinavian societies evolved in response to Viking excursions. P/NP or letter grading.

C141A. Theory of Scandinavian Novel. (4) Seminar, three hours. Analysis of predominant structures of Scandinavian novel from its 18th-century beginnings through its rise in 19th-century and its 20th-century evolution. Discussion of application of contemporary critical theories to novels. May be concurrently scheduled with course C241A. P/NP or letter grading.

141B. Nordic Poetry. (4) Seminar, three hours. Readings in English translation. Seminar of Nordic poetry from Middle Ages to present, including Poetic Edda of 13th-century Iceland, Scandinavian ballad tradition, some folk poetry from Finland's national epic Kalevala, and modern lyric poetry. Readings assessing translating poetry and consideration of particular problems poetry presents for translators, as well as what is lost and/or gained in translation. Study of poetry in its societal roles. Poetry has served in Nordic societies from 13th century to present day; Nordic poets' influences from and contributions to European literary movements; and special status of poetry within small national languages and literatures, as indicated by financial support from Nordic states and publishers of contemporary poets and their poetry. P/NP or letter grading.

141C. Short Story in Scandinavia. (4) Seminar, three hours. Exploration of range of classic short story and novella texts from Scandinavian literary canon, with stories by authors such as Henrik Christian Andersen, Peter Christen Asbjornsen, Alexander Kielland, Ama- lie Skram, Sigbjørn Obstfelder, Knut Hamsun, Isak Dinesen, and Rubén Palma. Examination of author's lives and oeuvres, larger Nordic/European literary movement of 19th and 20th centuries, and its impact and conventions of short stories themselves. P/NP or letter grading.

142A. Introduction to Nordic Theater and Drama. (4) Lecture, three hours. Examination of artistic lega- cy of Henrik Ibsen and August Strindberg in context of emergence of modern Nordic theater and drama as whole, as well as important contributions of their con- temporaries and successors. Readings include plays, letters, journals, and diary entries of major figures such as Henrik Ibsen, August Strindberg, Pär Lagerkvist, Kjeld Abell, Eeva-Liisa Manner, Hrafnhildur Hagalín, and Jonas Hassen Khemiri. P/NP or letter grading.


CM144A. Voices of Women in Nordic Literature. (4) (Same as Gender Studies M186.) Seminar, three hours. Requisite: course 5 or 15 or 25. Knowledge of Scandinavian languages not required for nonmajors. Readings and discussion of writings by Scandinavian women writers analyzed in historical, theoretical, soci- ological, critical, and comparative contexts. May be concurrently scheduled with course C244A. P/NP or letter grading.

C145A. Henrik Ibsen. (4) Seminar, three hours. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C245A. P/NP or letter grading.

C145B. Knut Hamsun. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandina- vian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C245B. P/NP or letter grading.

C146A. August Strindberg. (4) Seminar, three hours. August Strindberg's portrayals of marital con- flict reflected and shaped literary representation of so- called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. May be concurrently scheduled with course C246A. P/NP or letter grading.

147A. Hans Christian Andersen. (4) Lecture, two hours; discussion, one hour. 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.

C147B. Søren Kierkegaard. (4) Seminar, three hours. Readings and discussion of selected works by Søren Kierkegaard, Danish philosopher. May be concurrently scheduled with course C247B. P/NP or letter grading.


152. Backgrounds of Scandinavian Literature. (4) (Formerly numbered 141.) Seminar, three hours. Readings and discussion of representative texts se- lected from literature of classic Renaissance, Baroque, and Enlightenment periods. P/NP or letter grading.

152FL. Backgrounds of Scandinavian Literature. (2) (Formerly numbered 141FL.) Seminar, two hours. Requisite: course 5 or 15 or 25. Enforced corequisite: course 152. Additional work in Nordic languages to augment work assigned in course 152, including readings in Danish, Icelandic, Norwegian, or Swedish. P/NP or letter grading.

154. Romanticism. (4) Seminar, three hours. Explora- tion of Romanticism in Scandinavian literature. Reading and discussion of different approaches to Romanticism and analysis of works of prominent Scandinavian writers from Romantic period to under- stand Scandinavian Romanticism in larger European context, including work from both English and Ger- man Romantic writers and artists. P/NP or letter grad- ing.

155. Modern Breakthrough. (4) (Formerly num- bered 142.) Seminar, three hours. Readings and dis- cussion of selected works from Romantic, realism, and post-Romantic literature of Scandinavian in 19th cen- tury. P/NP or letter grading.

156. Scandinavian Literature of 20th Century. (4) (Formerly numbered 143.) Seminar, three hours. Readings and discussion of selected works of mod- ern Scandinavian literature from beginning of century to present. P/NP or letter grading.

156FL. 20th-century Scandinavian Literature. (2) (Formerly numbered 143FL.) Seminar, two hours. Requisite course 5 or 15 or 25. Enforced corequisite: course 156. Additional work in Nordic languages to augment work assigned in course 156, including reading in Danish, Icelandic, Norwegian, or Swedish. P/NP or letter grading.

157. Contemporary Nordic Literature. (4) (Former- ly numbered 181.) Seminar, three hours. Reading and analysis of selected texts by major 20th-century Swedish authors. P/NP or letter grading.

161. Introduction to Nordic Cinema. (4) Seminar, three hours. Designed for students in general and for those preparing for more advanced studies in Scandi- navian literature and culture. Viewing and discussion of films by Ingmar Bergman and other Scandinavians. P/NP or letter grading.

C163A. Introduction to Danish Cinema. (4) (For- merly numbered 163A.) Seminar, three hours. Intro- duction to history of cinema in Denmark, as well as to some fundamental concepts in studied film. Deliber- ately broad and historically centered approach to de- velopment of cinema in Denmark rather than focus on films of particular directors or topics. Theoretical read- ings from important authors such as Bazin, Metz, and Chatman, along with several directed exer- cises, to develop vocabulary and critical method for discussing films in general and Danish cinema in par- ticular. Other readings include selections from Hjort, Sandberg, Tangherlini, and other Scandinavian theo- rists. Concurrently scheduled with course C263A. P/ NP or letter grading.

C163B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Scandinavian cinema from silent era to present. Filmmakers include auteurs in international canon, such as Victor Sjöberg, Ingmar Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Mai Zetterling, Viggo Sjöman, Jan Troell, Lukas Moodysson, and Jo- sef Fares. Development of Scandinavian high art cin- ema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have En- glish subtitles. Concurrently scheduled with course C263B. P/NP or letter grading.

C163C. Introduction to Norwegian Cinema. (4) Se- minar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancred Ibsen, Arne Skouen, Edith Carlmar, Nils Gaup, Erik Stenberg, Bent Hamer, Khalid Hussain, and Petter Naess. Popular focus on genres such as war films, horror, noir, romantic comedies, and documentaries. Concur- rently scheduled with course C263C. P/NP or letter grading.

166A. Ingmar Bergman. (4) (Formerly numbered 166A.) Seminar, three hours. Exploration of Ingmar Bergman’s development as a filmmaker through various developments, spanning mid-1940s and mid-1970s. Contextualiza- tion of work of this most personal of filmmakers within multiple frameworks: Danish national film industry, transnational European cinema, and issues of auteur filmmaking. Writing by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own writings on cinema. All films have En- glish subtitles. Concurrently scheduled with course C266A. P/NP or letter grading.

166FL. Ingmar Bergman. (2) Seminar, two hours. Requisite: course 5 or 15 or 25. Enforced corequisite: course 166A. Additional work in Danish, Norwegian, or Swedish to augment work assigned in course 166. Films include readings and exercises in Danish, Icelandic, Norwegian, or Swedish. P/NP or letter grading.

C171. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Introduction to fairy tales and legends of Scandinavian tradition as well as to inter- pretive methodologies that strive to answer question why do people tell stories that they tell? Concurrently scheduled with course C271. Letter grading.

173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Examination of popular culture in Scandinavia through study of contemporary Scandi- navian literature, film, music, and art. Investigation of how issues such as globalization, immigration, and nationalism are portrayed in popular culture in Den- mark, Norway, Sweden, Finland, and Iceland. Discus- sion of how and why human condition is interpreted through study of cultural expressions and how it is possible — taking literature, film, and art as point of departure — to analyze cultural, historical, and politi- cal expression in given piece of art. P/NP or letter grading.

C174A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immi- grants in Sweden from Northern Europe, and consider ways in which European and Scandinavian societies evolved in response to immigrants. P/NP or letter grading.
dia, and countries throughout Africa. Cultural land-
scape previously marked by relatively high degree of
cultural homogeneity is characterized by broad cul-
tural diversity. Exploration of emergence of new voic-
es in Nordic cultural landscape in wide range of cul-
tural expressive media, including literature, film, and
visual and performing arts. Exploration of emergence of
new forms of Nordic languages, such as well-docu-
mented phenomenon of Rinkkeby Swedish. Concur-
rently scheduled with course C274A. P/ NP or letter
grading.

174B. Queer Scandinavia. (4) Formerly numbered
177.) Seminar, three hours. Queer themes in Scandi-
navian literature, mainly from 19th and 20th centuries.
Scandinavian countries have had more progressive
view on homosexuality than most other countries, and
Scandinavian writers portrayed homosexuality in ex-
P/ NP or letter grading.

175. Introduction to Sami Language and Culture. (4)
(Formerly numbered Old Norse Studies 199.) Lecture,
three hours. Use of thematically arranged, structurally
readings, conversation topics, individual and group
readings and discussions of selected aspects of
Scandinavian society based on readings of con-
temporary historical and sociological material. May be
repeated for credit (deter-
187FL. Special Studies: Readings in Scandina-
(2) Seminar, two hours. Requisite: course 5 or
15 or 25. Students must be concurrently enrolled in
affiliated research work in Nordic lan-
guages (Danish, Icelandic, Norwegian, Swedish) to
... 20th-century evolution. May be concurrently
scheduled with course C141A. Graduate students
may meet as group one additional hour each week and
write research papers of greater length and
depth. S/U or letter grading.

C244A. Voices of Women in Nordic Literature. (4)
Seminar, three hours. Preparation: advanced knowl-
edge of one Scandinavian language. Readings and
discussion of selected works by Scandinavian women
analysed in historical, theoretical, sociological, critical,
and comparative contexts. May be concurrently
scheduled with course CM144A. Graduate students
may meet as group one additional hour each
week and write research papers of greater length and
depth. S/U or letter grading.

C245B. Knut Hamsun. (4) Seminar, three hours.
Preparation: advanced knowledge of one Scandi-
avian language. Readings and discussion of selected
works by Knut Hamsun and other 19th- and 20th-cen-
tury Scandinavian writers who explored theme of na-
ture as modern idyll. May be concurrently scheduled
with course C145B. Graduate students may meet as
group one additional hour each week and write
research papers of greater length and depth. S/U or let-
ter grading.

C246A. Introduction to Sami Folklore. (4) Seminar,
three hours. Preparation: advanced knowledge of one
Several courses in the Nordic countries have been
scheduled with course C131. Graduate students do addi-
tional readings and write more extensive research papers. Letter
grading.

Graduate Courses

C231. Introduction to Viking Age. (4) (Formerly
numbered Old Norse Studies C231.) Lecture, three
hours. History and culture of early Scandinav-
ians. All texts in English, including readings in Old
Norse sagas and Eddas. Concurrently scheduled with
course C131. Graduate students do additional read-
ings and write more extensive research papers. Letter
grading.
models of oral composition, and modern-day electronic media and popular verbal genres, such as jok- ing and rap music. (3)

M272. Collecting Oral Tradition. (4) Same as English M205BL. Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.

M273. Studies in Oral Traditional Genres. (4) Same as English M205SC. 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.

C274A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape of Scandinavia is now marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Finno-Swedish. Concurrently scheduled with course C174A. S/U or letter grading.

C275. Introduction to Sami Language and Culture. (4) Formerly numbered C236. Lecture, three hours. Use of thematically arranged, structurally graduated readings, conversation topics, individual and group assignments, and journal writing to provide systematic overview of linguistic characteristics of Estonian language. At course end students should be able to communicate in Sami in variety of common social situations and should be equipped with necessary basic concepts to continue language acquisition and cultural studies in their social and professional milieu, interacting with native speakers, or taking formal courses at intermediate level. Concurrently scheduled with course C175. S/U or letter grading.

C280. Literature and Scandinavian Society. (4) Formerly numbered C260. Seminar, three hours. Designed for graduate students. Discussion of selected aspects of Scandinavian society based on readings of contemporary literature as well as historical and/or sociological material. May be repeated for credit (as determined by graduate advisor) with topic change. May be concurrently scheduled with course C180. Graduate students may meet for extra seminar hours and write research papers of greater length and depth. S/U or letter grading.

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

596. Directed Individual Study or Research. (2 to 6) Tutorial, to be arranged with faculty member who directs the study or research. Limited to graduate Scandinavian students. Twelve units may be applied toward total course requirement, but only 4 units may be applied toward minimum graduate course requirement. May be repeated twice. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4 to 8) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated once. May not be applied toward M.A. minimum course requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (4) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated. S/U grading.

SCIENCE EDUCATION

Interdisciplinary Minor
College of Letters and Science
UCLA

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e-mail: catech@ucla.edu
http://www.college.ucla.edu/catech/
Troy A. Carter, Ph.D., Co-Chair
Arlene R. Russell, Ph.D., Co-Chair

Faculty Committee
Troy A. Carter, Ph.D. (Physics and Astronomy)
Robert Cooper III, Ph.D. (Education)
Temir S. Hodge, Ph.D. (Civil and Environmental Engineering, Institute of the Environment and Sustainability)
Patricia E. Phelps, Ph.D. (Integrative Biology and Physiology)
Arlene A. Russell, Ph.D. (Chemistry and Biochemistry, Education)

Scope and Objectives

The Science Education minor is designed for students who wish to become middle school and high school science teachers. The minor provides the broad general science background included in California State subject matter credential examinations, selected coursework required for entry into a variety of postbaccalaureate credential programs, and field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, including Advanced Placement Tests. The minor is also attractive to students who plan to teach as graduate students in their disciplines.

Undergraduate Study

Science Education Minor

Students eligible for admission to the Science Education minor should be making normal progress on the preparation for a major course in the sciences whether they have declared such a major or not. They must have completed eight courses selected from the following, with at least one course from each department: Chemistry 14A, 14B, 14BL, 14C, 14CL or 20A, 20B, 20L, 30A, 30AL, Life Sciences 1, 2, 3, 4, 23L, Mathematics 3A, 31A, Physics 1A, 1B, 4A, 4Bl or 6A, 6B. Prior participation in a supervised experience in schools is recommended.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better. Students must consult with the academic coordinator responsible for the minor to plan a coherent program to complete both the minor and their major, prior to filing a petition to enter the minor.

Required Lower Division Courses (6 to 7 units):
Science Education 10SL and one course selected from Earth and Space Sciences 1 or 1F (Earth and Space Sciences 101 or C113 may be substituted for 1 or 1F).

Required Upper Division Courses (22 units minimum):
(1) Education 127, Science Education 100SL, (2) at least one and no more than two courses selected from Chemistry 192A, 192B, Civil and Environmental Engineering 192, Life Sciences 192A, 192B, Physics 192, Physiological Science 192, and (3) at least one and no more than two courses selected from Education M102, M103, M108, C125, 130, 132, 133, 134, 138, M182A/M194A, M183A/M194A.

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

Each minor course, except Science Education 10SL, must be taken for a letter grade, with a grade of C or better in each, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Science Education

Lower Division Courses

10SL. Classroom Practices in Elementary School Science. (2) Formerly numbered Life Sciences 71SL. Seminar, 90 minutes; fieldwork, three hours. Introduction for prospective science teachers to field of elementary education and teaching and learning of science in elementary school classrooms. Pairs of students are placed in local elementary school class-rooms to observe, participate, and assist mentor teachers in instruction. Introduction to inquiry-based learning practices, national and California standards, reading and learning differences in children, and cognitive ability of elementary-age children as it relates to introduction of concepts, curricular planning, classroom management, and learning assessment. P/NP grading.

105SL. Classroom Practices in Middle School Science. (2) Formerly numbered Life Sciences 72SL. Seminar, 90 minutes; fieldwork, three hours. Enforced requisite: course 1SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in middle school classrooms. Pairs of students are placed in local middle school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning in middle school culture, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. P/NP grading.

Upper Division Course

1005SL. Classroom Practices in High School Science. (5) Seminar, three hours; service learning fieldwork, three hours. Enforced requisite: course 105SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in high school classrooms. Pairs of students are placed in local high school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning in high school culture, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. Letter grading.
SLAVIC LANGUAGES AND LITERATURES
College of Letters and Science
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Ronald W. Vroon, Ph.D., Chair

Professors
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Vyacheslav V. Ivanov, Ph.D.
Olga Kagan, Ph.D.
Emily R. Klenin, Ph.D.
Roman Koropeckyj, Ph.D.
Gail D. Lenhoff, Ph.D.
Ronald W. Vroon, Ph.D.

Professors Emeriti
Henning Andersen, Ph.D.
Peter C. Hodgson, Jr., Ph.D.
Vladimir Markov, Ph.D.
Aleksandr L. Osipov, Ph.D.
Rochelle H. Stone, Ph.D.
Dean S. Worth, Ph.D.

Senior Lecturer S.O.E.
Edward Denzler, M.A., Emeritus

Lecturers
Melinda Borbely, M.A.
Marianna Chodorowska-Pilch, Ph.D.
Georgiana Galateanu, Ph.D.
Susan C. Kreas, Ph.D.
Ganna Kudyma, Ph.D.
Viktorija Lejo-Lacan, Ph.D.

Scope and Objectives
The Department of Slavic Languages and Literatures offers a wide array of courses in the languages and cultures of Russia and of central and eastern Europe. Instruction is offered in Czech, Hungarian, Polish, Romanian, Russian, Serbian/Croatian, and Ukrainian to provide the necessary linguistic skills to pursue advanced work in the literature, culture, history, politics, and social structures of these areas. Students have the choice of several majors and minors and the opportunity to enhance their knowledge and skills through programs of study abroad.

The department offers two majors in Russian. The Russian Language and Literature major is designed to provide students with basic mastery of the Russian language and familiarity with the classics of Russian literature. Students typically begin to study Russian in their first year, but those contemplating a Russian major later in their academic program can fulfill the Russian language requirement by combining regular coursework with summer programs or with the University of California Education Abroad Program (EAP) in Moscow, which is open to students who have completed the equivalent of one or more years of study (level 1 on the American Council on Teaching of Foreign Languages — ACTFL — scale). Students interested in this program should consult the undergraduate adviser as early as possible.

The major in Russian Studies is designed for students who wish to complement mastery of the language with an array of courses on Russian history, politics, literature, and culture.

The major in Central and East European Languages and Cultures is designed to provide students with a mastery of two languages of central or eastern Europe and familiarity with the literature, as well as general background in the cultural, political, and social history of the Slavic peoples.

The graduate program provides advanced training in Slavic literatures and linguistics leading to the 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) Central and East European Languages and Cultures, (2) Russian Language and Literature, and (3) Russian Studies. The equivalent of a major in Central and East European Languages and Cultures or Russian Language and Literature is normally required for admission to the department’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 Central and East European Languages and Cultures or Russian Language and Literature who intend to pursue graduate study in the department are strongly encouraged to take courses in Russian literature and linguistics during their undergraduate years to reduce the number of makeup courses required. Qualified seniors may also take graduate courses numbered below 220 with consent of the instructor and the graduate and undergraduate advisers.

The three majors offered in the department are designated capstone majors. Students majoring in Central and East European Languages and Cultures, Russian Language and Literature, and Russian Studies must complete a capstone seminar and present their final paper in the department’s annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.

Central and East European Languages and Cultures B.A.

Capstone Major

Preparation for the Major
Required: Central and East European Studies 91 or Slavic 90.

Transfer Students
Transfer applicants to the Central and East European Languages and Cultures major with 90 or more units must complete the following introductory course prior to admission to UCLA: one culture, history, or civilization course on one or more European nations.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admis _tr.htm for up-to-date information regarding transfer selection for admission.

The Major

During their senior year, students must also take Slavic 191T in which they complete a capstone senior thesis.

Students may petition to substitute courses after consulting with the undergraduate adviser.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.
Russian Language and Literature B.A.

Capstone Major

Preparation for the Major

Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

Transfer Students

Transfer applicants to the Russian Language and Literature major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major


During their senior year, students must also take Slavic 191T in which they complete a capstone senior thesis.

Students may petition to substitute courses after consulting with the undergraduate adviser.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program

The honors program is designed for exceptional departmental majors who wish to complete a major program of study in the College of Slavic Languages and Literature and fulfill the requirements for the major, with an overall grade-point average of 3.0 and a 3.5 GPA or better in the major courses, are eligible to apply. Students must have the sponsorship of an approved faculty adviser.

All honors students must enroll in Slavic 198A and 198B in two consecutive terms to conduct independent research and write the honors thesis. The results of the research should be presented at a conference paper at the annual Slavic Undergraduate Research Conference.

Central and East European Studies Minor

The Central and East European Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Sciences with exposure to a variety of disciplines pertinent to the study of central and eastern Europe, including language, literature, history, political science, folklore, ethnology, and women's studies.

To enter the minor students must be in good academic standing (2.0 minimum grade-point average) and file a petition with the department counselor in 322B Humanities Building, (310) 825-3856.

Required Lower Division Courses (5 units): Central and East European Studies 91 or Slavic 90.

Required Upper Division Courses (28 to 31 units): (1) One three-quarter introductory central and east European language sequence to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, Serbian/Croatian 101A, 101B, 101C, or Ukrainian 101A, 101B, 101C (students who demonstrate sufficient fluency in one of these languages through departmental testing are exempt from this three-course sequence and can replace it with a minimum of 12 units of language courses from item 3); (2) one course dealing directly with the target culture to be selected from Central and East European Studies 126, Czech 155, Ethnomusicology 161C, Gender Studies M166, 185, History 120A through 120D, 130A, 130B, Polish 152A, 152B, 152C, Political Science 156B, 156D, Romanian 152, Russian 124G, Serbian/Croatian 154, Slavic 125, 179, Sociology M166, or Ukrainian 152; (3) 12 units of second-year or higher-level language courses to be selected from Czech 102A, 102B, 102C, 187A through 187M, Hungarian 102A, 102B, 102C, 187A through 187M, Polish 102A, 102B, 102C, 187A through 187M, Romanian 102A, 102B, 102C, 187A through 187M, Serbian/Croatian 102A, 102B, 102C, 187A through 187M, Ukrainian 102A, 102B, 102C, 187A through 187M (187 courses are 2 units each) OR three courses dealing directly with any central and east European culture to be selected from Central and East European Studies 126, Czech 155, Ethnomusicology 161C, Gender Studies M166, 185, History 120A through 120D, 130A, 130B, Hungarian 121, Polish 152A, 152B, 152C, Political Science 156B, 156D, Romanian 152, Russian 124G, Serbian/Croatian 154, Slavic 125, 179, Sociology M166, Ukrainian 152.

With approval of the undergraduate adviser, other related upper division courses may be applied toward the minor.

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

No more than two courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

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

Russian Language Minor

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

Required Lower Division Courses (9 to 17 units): Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

Required Upper Division Courses (20 to 23 units): Students select one of the following options: (1) Russian 101A, 101B, 101C and two additional Russian language or literature courses; (2) Russian 100A, 100B, 100C and two additional Russian language or literature courses; or (3) five Russian language and literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 130A, 130B, 130C, 140A through 140D, with a minimum of three courses in Russian language.

Students may petition to substitute courses after consulting with the undergraduate adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
No more than two courses (8 to 10 units) may be applied toward both this minor and a major in another department or program.

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

**Russian Literature Minor**

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

**Required Lower Division Courses (9 to 17 units):** Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW.

**Required Upper Division Courses (20 units):** Five Russian language and literature courses, including at least two from Russian M11B, 119, 120, 130A, 130B, 130C, 140A through 140D. Students may petition to substitute courses after consulting with the undergraduate adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two courses (8 to 10 units) may be applied toward both this minor and a major in another department or program.

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

**Russian Studies Minor**

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

**Required Lower Division Courses (9 to 17 units):** Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW.

**Required Upper Division Courses (20 units):** Five courses in Russia-related fields, with a minimum of three courses selected from History M127A through 127D, Honors Collegium 164, Political Science 128A, 128B, 156A.

Students may petition to substitute courses after consulting with the undergraduate adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two courses (8 to 10 units) may be applied toward both this minor and a major in another department or program.

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

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Slavic Languages and Literatures offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Slavic Languages and Literatures.

**Bulgarian**

**Upper Division Courses**

101A-101B-101C. Elementary Bulgarian. (5-5-5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Basic courses in Bulgarian language. P/NP or letter grading.

**Lower Division Course**

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours; discussion, one hour. Interdisciplinary course to introduce students to main themes and concepts of central and east European studies, including historical background, nation states and ethnic groups, languages spoken in area, and culture and politics in communist and post-communist periods: religion, literature, mass media, music, art, and cinema. P/NP or letter grading.

**Upper Division Course**

126. Cold War Central European Culture. (4) Formerly numbered Slavic 126.) Lecture, three hours. Examination of coldwar Central European culture through prism of prose fiction, essays, and film from 1947 to 1992. Analysis of strategies of Polish, Czech, Hungarian, and East German writers as articulation of tensions, contradictions, and compromises informing communist rule in central and eastern Europe, with focus on culture as node of resistance as well as accommodation to communist system. P/NP or letter grading.

**Czech**

**Upper Division Courses**


102A-102B-102C. Advanced Czech. (4-4-4) Lecture, three hours. Requisite: course 101C. P/NP or letter grading.


155. Survey of Czech Literature from Middle Ages to Present. (4) Lecture, three hours. Lectures and readings in English. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Czech. (2) Tutorial, one hour; laboratory, one hour. Enforced prerequisite: course 102C or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Czech. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

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

**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.

102A-102B-102C. Advanced Hungarian. (4-4-4) Lecture, three hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

121. Survey of Hungarian Literature in Translation. (4) Lecture, three hours. Designed for students in general and comparative literature, as well as students interested in Finno-Ugric studies. Survey of main trends and contacts with other literatures. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Hungarian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Hungarian and/or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Hungarian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

**Lithuanian**

**Upper Division Courses**

101A-101B-101C. Elementary Lithuanian. (4-4-4) Discussion, five to six hours. Course 101A is requisite to 101B, which is requisite to 101C. Basic course in Lithuanian language. P/NP or letter grading.

102A-102B-102C. Advanced Lithuanian. (4-4-4) Lecture, three hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

187. Individual Studies in Lithuanian. (2 to 4) Tutorial, four hours. Limited to seniors/juniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
Polish

Upper Division Courses
101A-101B-101C. Elementary Polish. (5-5-5) Lecture, three hours. Course 101A is requisite to 101B, which is requisite to 101C. Basic courses in Polish language. P/NP or letter grading.

102A-102B-102C. Advanced Polish. (4-4-4) Lecture, three hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

152A-152B-152C. Survey of Polish Literature. (4-4-4) Lecture, three hours. Lectures and readings in English. Letter grading. 152A. From the Middle Ages to Neoclassicism; 152B. Reimagining a Nation. Readings in 19th-century Polish literature and culture. 152C. Dreaming, Mocking, and Writing “as if”. Readings in modern Polish literature and culture.

167A. Advanced Tutorial Instruction in Polish. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Polish language and/or Polish placement test. Tutorial and guided independent study of advanced Polish: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

167B-167M. Advanced Tutorial Instruction in Polish. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Polish placement test. Tutorial and guided independent study of advanced Polish: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Course
280. Seminar: Polish Literature. (4) Seminar, three hours. Introductory survey of social and cultural institutions of Romanian people and their historical background. P/NP or letter grading.

Romanian

Lower Division Course
90. Introduction to Romanian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Romanian people and their historical background. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Advanced Romanian. (5-5-5) Lecture, five hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. Differences between oral and written discourse, expansion of students’ general and academic vocabulary, writing P/NP or letter of grammatical structures for use in speaking and writing. Cultural information to be included in readings. Letter grading.


152. Survey of Romanian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of Romanian literature from Middle Ages to present. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: course 102C or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

217B-217M. Advanced Tutorial Instruction in Romanian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

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.

Russian

Lower Division Courses
1. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 1. P/NP or letter grading.


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 student. Course 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.


25. Russian Novel in Translation. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Designed for nonmajors. Study of major works by the great 19th-century Russian novelists. P/NP or letter grading.

25W. Russian Novel in Translation. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 25W. Designed for nonmajors. Study of major works by the great 19th-century Russian novelists. Satisfies Writing II requirement. Letter grading.

30. Russian Literature and World Cinema. (4) Lecture, three hours; discussion, one hour. Examination of Russian literary masterpieces and their screen adaptations in various national cinematic traditions, with focus on problems of perception and misperception arising when literature is translated into cinema, and one national culture is viewed through the eyes of another. P/NP or letter grading.

31. History of Russian Cinema. (5) Lecture, three hours; discussion, one hour; film screening, three hours. Overview of Russian cinema from silent films of early 20th century to current developments, with focus on cinematic styles, genres, and directors. Particular attention to differences between visual and verbal storytelling. P/NP or letter grading.

32. Russia and Asia: Cultural Dialogues. (5) Lecture, three hours; discussion, one hour. Since end of Soviet Union, cultural and political flux within non-Christian lands neighboring Russia has increased dramatically. Given radical rejection of Russian heritage in most former Soviet territories, key distinctions in humanities have become unclear, including fundamental confusion between limits of Slavic and Near Eastern studies. Examination of relation of Russia’s culture to its borders: Caucasus, Central Asia, China, and Japan. P/NP or letter grading.

90A. Introduction to Russian Civilization. (5) Lecture, three hours; computer laboratory, one hour. Introduction to Russian culture and society from earliest times to 1917. P/NP or letter grading.

90B. Russian Civilization in the 20th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 90B. Survey of literature, theater, cinema, television, press, music, and art. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. P/NP or letter grading.

90BW. Russian Civilization in the 20th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 90B. Survey of literature, theater, cinema, television, press, music, and art. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. P/NP or letter grading.

100A-100B-100C. Literacy in Russian. (4-4-4) Lecture, three hours. Course 100A is requisite to 100B, which is requisite to 100C. For students who speak Russian but have difficulty writing. Focus on improving reading and writing skills, increasing vocabulary, and developing speaking skills required for academic discourse. P/NP or letter grading.


101A. Russian and the West; 101B. Soviet Russia; 101C. Contemporary Russia.

102A-102B-102C. Topics in Advanced/Superior Russian. (4-4-4) Lecture, three hours. Requisite: course 101C. Discussion and composition, with emphasis on vocabulary development and review of selected grammar topics. Readings in fiction and nonfiction, films, and videos, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Native Speakers. (4-4-4) Lecture, three hours. Course 103A is not requisite to 103B, which is not requisite to 103C. Improvement of oral and written language skills, emphasizing correct and diversified use of language and addressing individual grammatical difficulties. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

103A. Russian National Identity. Readings in literature, philosophy, criticism, and film. 103B. Literature and Film. 103C. Film adaptations of Russian literature. Readings and screenings. 103C. Special Topics.
107A-107B-107C. Russian for Social and Cultural Studies. (4-4-4) Lecture, three hours. Exploration of texts and forms of visual, social sciences, and culture, with emphasis on press, television, and Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.


M118. History of Russia, Origins to Rise of Muscovy. (4) Lecture, three hours. History of Moscow. Three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Kievan Russia and its culture, Appanage principalities and towns; Mongol invasion; unification of Russian state by Muscovy. Autocracy and its Servitors; serfdom. P/NP or letter grading.

119. Golden Age and Great Realists. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Survey of 19th-century Russian literature (Pushkin, Gogol, Turgenev, Chekhov) in its cultural, political, and social context. Letter grading.

120. Literature and Revolution. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Major works of the 20th century (Belyi, Pasternak, Bulgakov, Solzhenitsyn, and others) from prerevolutionary avant-garde to the present. P/NP or letter grading.

121. Russian Pop Culture. (5) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Overview of Russian popular culture today, with examination of status of Russia's classic(al) traditions for artists and audiences working in modern Russia. Discussion of the redundancy and attenuation of another lead away from written word into neighboring forms of expression, primarily visual. Consideration of debates of modern storytelling with cinema, television, animation, music videos, and Internet. Letter grading.

122. Siberia. (5) Lecture, three hours. Introductory survey in which current cultural and ecological issues are situated in their geographical and historical background, including first contact of Siberian human geography before first contact with European colonizers and development of modes of interaction among different cultural groups. Reading in English of selection of literary works and memoirs of Russian and Siberian writers whose texts serve as locus for closer examination of Siberian regional literary culture and ecological net- work within which it exists. Letter grading.


124D. 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.


C124N. Studies in Russian Literature: Nabokov. (4) Lecture, three hours. Lectures and readings in English. Russian novelist (The Gift), American novelist (Lolita), and critic. Concurrently scheduled with course C277. P/NP or letter grading.

124P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, narrative poems, plays, short stories, and selected let- ters. P/NP or letter grading.

124T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Introduction to representative selection of most important dramatic works in Russian literary tradition, including works from neoclassical, Romantic, realist, and futurist tradi- tions. 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 literary tradition, including works from neoclassical, Romantic, realist, and futurist tradi- tions. P/NP or letter grading.

127. Women in Russian Literature. (4) (Same as Gender Studies M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Emphasis on women's writings in Russia and Soviet Union. Emphasis on 20th-century women's fiction; compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Animation and Music Video. (5) Lecture, three hours; discussion, one hour. Designed for juniors/se- niors. Lectures and readings in English. Humanities and cultural contexts. Works of late 18th and 19th centuries in their historical and cultural contexts. Emphasis on function of science fiction in development of Russian culture before and after the October Revolution. P/NP or letter grading.

130A-130B-130C. Russian Poetry. (4-4-4) Lecture, three hours; discussion, one hour. Designed for seniors/ neophytes. Lectures and readings in English. Humanities and cultural contexts. Works of late 18th and 19th centuries in their historical and cultural contexts. Emphasis on function of science fiction in development of Russian culture before and after the October Revolution. P/NP or letter grading.

130A1-130B1-130C1. Russian Poetry. (4-4-4) Lecture, three hours; discussion, one hour. Designed for seniors/neophytes. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

130A2-130B2-130C2. Russian Poetry. (4-4-4) Lecture, three hours; discussion, one hour. Designed for seniors/neophytes. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

130B. Russian for Social and Cultural Studies. (4 each) Lecture, three hours. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

130C. Russian Folk Literature. (4) Lecture, four hours. Lectures and readings in Russian. P/NP or letter grading.

C170. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey of genres and related folktoric phenomena. Concurrently scheduled with course C240. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Russian placement test. Tu- torial and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Rus- sian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Russian placement test. Tutorial and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

191. Variable Topics Research Seminars: Russian Literature. (4) Seminar, three hours. Requisite: course 6. Reading and discussion of selected authors, culminating seminar paper required. May be re- peated for credit with topic and/or instructor change. P/NP or letter grading.

Graduate Courses

201A-201B-201C. Russian: Vocabulary, Pronunci- ation, Style. (4-4-4) Lecture, three hours. Requisite: completion of course 102C. Conducted in Russian. Reading and analysis of texts with focus on vocabulary, pronun- ciation, and style, respectively, in three consecutive terms. S/U or letter grading.


203. Practicum in Russian. (2) Requisite: course 201C. Two terms per year required of Ph.D. students. Reading of advanced texts; advanced composition; conversation; stylistics. May be repeated for credit. S/ U or letter grading.


212B. Age of Realism. Lecture, three hours. Required for M.A. (literature). Survey devoted to emergence of critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoevsky, moving to major novels of Tolstoy, Dostoevsky, and Saltykov-Shchedrin, and concluding with works of the presymbolist period, especially short stories of Chekhov. S/U or letter grading.

213A. 20th-Century Russian Literature, 1890 to 1929. (4) Lecture, three hours. Required for M.A. (literature). Lectures and readings in major literary trends of modernist period, such as decadence, symbolism, futurism, acmeism, and ornamental school. Analysis of representative works by Blok, Bely, Khlebnikov, Pasternak, Platonov, and others. S/U or letter grading.


214. Contemporary Russian Literature. (4) Lecture, three hours. Introduction to most important theoretical issues of Russian literature viewed in diachronic perspective. Letter grading.


219. Movements and Genres in Russian Literature. (4) Lecture, three hours. Introduction to most important theoretical issues of Russian literature viewed in diachronic perspective. Letter grading.


227. Linguistic Approaches to Russian Poetry. (4) Lecture, three hours. Introduction to use of linguistic methods in study of Russian poetic texts. May be repeated for credit. S/U or letter grading.

C240. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey of genres and related folkloric phenomena. Concurrently scheduled with course C170. S/U or letter grading.

241. Topics in Russian Phonology. (4) Lecture, three hours. Required: 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. Required: 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. Required: course 204, Slavic 221. Selected topics in Russian historical phonology, morphology, and syntax. May be repeated for credit with consent of instructor.

251. Topics in Literature of Medieval Rus’. (4) Lecture, three hours. Required: course 211A. Detailed discussion of particular writers, periods, or genres. May be repeated for credit with consent of instructor and graduate adviser.

261. Discourse Grammar of Russian. (2 or 4) Lecture, three hours. Analysis of phenomena of Contemporary Standard Russian controlled by discourse/pragmatic factors at all levels of linguistic structure from phonology to intensional 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.

270. Russian Poetics. (4) Lecture, three hours. Introduction to technical study of Russian poetics and verification, with attention to metrics, stanza forms, rhyme, and development of various verse types from the 18th into the 20th century.


290. Seminar: Russian Poetry. (4) Seminar, three hours. Recommended preparation: course 270. Detailed study of a single poet, period, or work. May be repeated for credit with consent of instructor and graduate adviser.

291A. Seminar: Literature of Medieval Rus’. (4) Seminar, three hours. Requisite: course 211A. Selected topics from the 11th through the 17th century. May be repeated for credit with consent of instructor and graduate adviser.

291B. Seminar: 18th-Century Russian Literature. (4) Seminar, three hours. Requisite: course 211B. Selected authors and works 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. Selected authors and works from 19th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

293. Seminar: 20th-Century Russian Literature. (4) Seminar, three hours. Requisite: course 211A. Selected authors and works from 20th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser. S/U or letter grading.

294. Seminar: Russian Literary Criticism. (4) Seminar, three hours. Requisites: courses 211B, 212A, 212B, 213A. Detailed study of specific school of literary criticism, single period of Russian literary history as reflected in literary criticism. Simultaneous or similar phenomena in literary criticism in West. May be repeated for credit with consent of instructor and graduate adviser. S/U or letter grading.

296. Seminar: History of Russian Culture. (4) Discussion, three hours. Reading and discussion on selected topics in history of Russian culture.

Serbian/Croatian

Upper Division Courses

101A-101B-101C. Elementary Serbian/Croatian. (5-5-5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Basic courses in Serbian/Croatian. P/NP or letter grading.

102A-102B-102C. Advanced Serbian/Croatian. (4-4-4) Lecture, three hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.


154. South Slavic Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of South Slavic literature from Middle Ages to the present. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Serbian/ Croatian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: course 102C or Serbian/Croatian. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Ser- bian/Croatian. (2 each) Tutorial, one hour; laborato- ry, one hour. Preparation: prior course in sequence or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

Slavic

Lower Division Courses


M40. Christianities East and West. (5) (Formerly numbered 40.) (Same as Religion M40.) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity — Eastern and Oriental Orthodoxy, Roman Catholicism, and Protestantism, contrasting religious, political, and multicultural metropolis Review and analysis of features of major linguistic communities in Los Angeles area (Armenian, Cantonese, Japanese, Korean, Mandarin, Russian, Spanish, and others), with partic- ular attention to social and cultural factors that play role in maintenance of language used in any given ethnic group. Familiarization with discipline and meth- odology of urban linguistics as part of urban geo- geographical studies and as tool for investigating growing linguistic and cultural diversity of America's large cit- ies. P/NP or letter grading.

87. Languages of Los Angeles. (5) Lecture, three hours; discussion, one hour. Comprehensive interdisciplinary investigation of Los Angeles as multilingual and multicultural metropolis Review and analysis of features of major linguistic communities in Los Angeles area (Armenian, Cantonese, Japanese, Korean, Mandarin, Russian, Spanish, and others), with partic- ular attention to social and cultural factors that play role in maintenance of language used in any given ethnic group. Familiarization with discipline and meth- odology of urban linguistics as part of urban geo- geographical studies and as tool for investigating growing linguistic and cultural diversity of America's large cit- ies. P/NP or letter grading.

88. Sophomore Seminars: Literature and Culture. (4) Seminar, three hours. Variable topics course de- signed to explore themes and issues pertinent to Slavic literature and culture. Culminating project may be required. Consult Schedule of Classes or department for topics to be offered in specific term. Letter grading.

90. Introduction to Slavic Civilization. (5) Lecture, three hours; discussion, one hour. Introductory survey of social and cultural institutions of Slavic peoples and their historical background. P/NP or letter grading.
Upper Division Courses

103E. Intensive Elementary Estonian, (12) Lecture, 19 hours. Intensive basic course in Estonian equivalent to one year of language study. Use of series of thematically arranged, structurally graduated readings, conversation exercises, and individual and group assignment writing. To provide systematic overview of linguistic characteristics of Estonian language. P/ NP or letter grading.

103L. Intensive Elementary Latvian, (12) Lecture, 19 hours. Intensive basic course in Latvian equivalent to one year of language study. Use of series of thematically arranged, structurally graduated readings, conversation exercises, and individual and group assignments, as well as journal writing, to provide systematic overview of linguistic characteristics of Latvian language. P/ NP or letter grading.

CM114. Teaching and Learning of Heritage Languages, (4) (Same as Applied Linguistics CM128.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLs; particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLs; impact of student motivation and learning needs; HL curriculum and teaching approaches; similarities and differences between HLs and foreign language learners (FLLLs) regarding teaching methods and materials; diagnostic testing and needs analysis; planning of oral/aural proficiency as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM214. P/ NP or letter grading.

125. Intercultural European Prose, (4) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representative authors of the 1920s and 1930s in translation. Special attention to relation between literature and historical and ethnic concerns. P/ NP or letter grading.

179. Baltic and Slavic Folklore and Mythology, (4) Lecture, four hours. General course for students interested in folklore and mythology and for those interested in Indo-European mythic antiquities. P/ NP or letter grading.

191T. Senior Thesis in Slavic Languages and Literatures, (4) (Same as Applied Linguistics CM228.) Tutorial, to be arranged. Limited to seniors. Supervised individual research undertaken by departmental majors. Planning and completion of senior thesis; students make verbal and written presentations. Normally taken in Spring Quarter of senior year. P/ NP or letter grading.

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

212. Seminar in Slavic Literature and Linguistics, (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter may be repeated for credit. Individual contract required. P/ NP or letter grading.


224. Introduction to Slavic Linguistics, (4) (Same as Applied Linguistics CM228.) Lecture and recitation, three hours. Examination of linguistic differences between male and female speech and of language used to refer to males and females. 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: Comparative 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.

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.

560. 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


102A-102B-102C. Advanced Ukrainian, (4-4-4) Lecture, three hours. Requisite: course 101B, which is requisite to 102C. Development of advanced listening, speaking, reading, and writing skills. P/ NP or letter grading.

152. Ukrainian Literature, (4) Lecture, three hours. Lectures and readings in English. Survey of writers, literary trends, and movements in Ukrainian literature from the late 18th century to the present. Special attention to works of such major figures as Krylov, Shevchenko, Franko, Ukrainka, and Tychyna.

177A. Advanced Tutorial in Ukrainian, (2) Tutorial, one hour; laboratory, one hour. Preparatory: two years of Ukrainian and/or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian. Advanced conversational composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/ NP or letter grading.


242A. Advanced Readings in Canonical Texts; 241B. East, West, and South Slavic Recensions of Church Slavic.


260. 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.
SOCIAL THOUGHT
Interdisciplinary Minor
College of Letters and Science

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Barbara Herman, Ph.D. (Institute for Society and Genetics, Law, Philosophy)
Russell Jacoby, Ph.D., in Residence (History)
Michael Mann, Ph.D. (Sociology)
Jeffrey Prager, Ph.D. (Sociology)
Brian D. Walker, Ph.D. (Political Science)
Matthew Norton Wise, Ph.D. (Institute for Society and Genetics; History)

Scope and Objectives
The Social Thought minor provides an opportunity for students to take a series of courses that focus on modern social and intellectual thought from the 17th through the 20th century. The minor builds on lower division introductory exposure to the history of modern ideas as embodied in a number of key texts by significant thinkers such as Descartes, Hobbes, Locke, Smith, Rousseau, Wollstonecraft, Mill, Marx, Weber, Darwin, Nietzsche, Freud, DuBois, de Beauvoir, and others and promotes more intense and broad exposure to the great ideas and modern thinkers of the contemporary world. It culminates with enrollment in a two-term senior thesis tutorial related to a theme from previous coursework and closely supervised by a faculty mentor. The senior thesis occurs in conjunction with a weekly research colloquium where students meet with faculty members to discuss their senior thesis work or related work in the minor.

The minor is intended to supplement the liberal arts education of undergraduates who, through their major, are interested in finding an area of specialization related to career objectives and who seek broad and systematic training in the major ideas of the modern world.

Undergraduate Study
Social Thought Minor

The Social Thought minor is limited to students who formally apply and are admitted. To apply, students must submit an application, a personal statement supporting their interest in pursuing the minor, a letter of recommendation from a faculty mentor, and a transcript to the College Academic Counseling Office, A316 Murphy Hall.

To enter the minor, students must have an overall grade-point average of 2.0 or better and apply for admission only after successfully completing the following lower division requirements: General Education Clusters 21A and 21B, OR two courses from German 56, Honors Collegium 20, 21W, 55, 57, 62, 83W, Philosophy 6, Political Science 10, Sociology 10.


Required Research Colloquia and Senior Thesis (12 units): Students must also complete Social Thought 190A and 190A in one term and courses 190B and 190B in the following term. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

No more than two courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

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

Social Thought
Upper Division Courses

190A-190B. Research Colloquia in Social Thought I, II, (2-2) Seminar, two hours. Corequisite for course 190A: course 190A for 190B; course 190B. Limited to juniors/seniors. Required of students in Social Thought minor. Designed to bring together students undertaking supervised senior thesis work in seminar setting with one or more faculty members to discuss their work or related work in Social Thought minor. Led by one supervising faculty member. Course 190A may be repeated for credit. P/NP grading.

199A-199B. Directed Research or Senior Thesis in Social Thought I, II, (4-4) Tutorial, to be arranged. Corequisite for course 199A: course 190A; for 199B; course 190B. Limited to juniors/seniors. Required of students in Social Thought minor. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.
als 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 Luskin School of Public Affairs, the program affords students instructional opportunities in the other affiliated departments—Public Policy and Urban Planning.

Beyond national opportunities in the profession of social work, there is increasing demand for qualified and experienced social workers to serve in the international field, where many social service programs are conducted under the auspices of the United Nations, the U.S. government, and national sectarian organizations. Graduates of the doctoral program generally secure appointments at major universities or research centers.

The challenge to the department, the profession, and those who join us as students is to prepare to forge the paths, build the bridges, and shape the future to ensure that all individuals, families, and communities enjoy better education, better healthcare, better job training, and better economic futures.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgasemain.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees


Social Welfare

Upper Division Courses

100A. Introduction to Social Welfare: Policies and Programs. (4) Lecture, four hours. Origin and development of major U.S. welfare programs and policies guiding them, with emphasis on analysis of policy developments/issues related to provision of social welfare services. Study of historical and current responses of profession to major social problems. P/ NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Lecture, four hours. Requires: course 100A. Review of existing policy regulations and field of social welfare. Examination of discrepancy between need and capacity of social agencies to address need. Exploration of differential impact of policy on various populations. P/NP or letter grading.

101. Social Welfare in a Cultural Society. (4) Lecture, four hours. Social policy viewed from perspective of various cultural groups. Students to become aware of their own cultural perspective and learn to recognize similarities and differences in values, perspectives, and beliefs across cultural groups. P/NP or letter grading.


103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Lecture, four hours. Requires: course 101. Description and demonstration of basic skills employed in direct social work practice via casework process. Students practice these skills in a written assignment, small group, and video or audio audio. P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Gender Studies M104C and Gerontology M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) (Same as Gerontology M104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of history of contemporary aging policy. Exploration of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) (Same as Gerontology M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminar focuses on the social aspect of social gerontology. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Lecture, three hours; outside study, eight hours. Historical overview of major social welfare developments in the U.S., with specific emphasis on single-parent households. Overview of measurements and characteristics of poor people; alternative theoretical explanations of poverty; historical overview of major social welfare policies to combat poverty, particularly Aid to Families with Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA); and critical approaches to stat welfare reform policies. Relationship between research knowledge about poverty and current policies, and effects of gender, ethnicity, and class on patterns of poverty and policy responses. P/NP or letter grading.

130A-130B. Community Research and Services Seminars. (4-4) Seminar, three hours; service learning, outside study, five hours. Course 130A is required to 130B. Limited to juniors/seniors. History and roles of welfare policy within government, organizations, and communities. Reflections about service-learning site experiences, with application of issues related to lecture and seminar readings. Students to be assigned to work as communities working with poor people, working in the larger community, working with community-based agencies, working with non-profits, working for non-profit organizations. Letter grading.

131. Poverty, Poor, and Welfare Policy. (4) Seminar, three hours. Limited to juniors/seniors. Current research and policy issues concerning poverty in the U.S., with specific emphasis on single-parent households. Overview of measurements and characteristics of poor people; alternative theoretical explanations of poverty; historical overview of major social welfare policies to combat poverty, particularly Aid to Families with Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA); and critical approaches to state welfare reform policies. Relationship between research knowledge about poverty and current policies, and effects of gender, ethnicity, and class on patterns of poverty and policy responses. P/NP or letter grading.

132. Community Analysis and Community Needs. (4) Lecture, three hours. Limited to juniors/seniors. Theoretical and practical foundation for understanding and depicting demographic composition of communities and for determining community needs. Use of systems theory as organizing framework. Community interventions are addressed within the context of social welfare policy. Lecture, outside study, two hours. Limited to juniors/seniors. Perspectives on major features of social welfare policy and current policy issues. Knowledge of community infrastructure necessary for ascertaining its strengths and resources that can be mobilized for addressing and responding to community needs, issues, and concerns. Social service agencies and communities can work together in partnership to enhance quality of community life. P/NP or letter grading.

M140. Introduction to Study of Aging. (4) (Same as Psychology M140.) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging — biological, social, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

M142SL. Intergenerational Communication across Lifespan. (4) (Same as Gerontology M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. Perspectives on major features of human aging — biological, social, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

182. Health Policy and Services. (4) Seminar, three hours. Limited to juniors and seniors. Contemporary issues in healthcare financing and delivery and historical perspective on these issues. Role of government in healthcare and ways controversy about this role continues to shape and constrain public policy in health. Major public programs, notably Medicare and Medicaid, and their relationship to issues of access and cost for diverse vulnerable populations. Various public and private approaches to healthcare reform and ways of thinking about their potential impact, cost, and political feasibility. Existing policies and reforms designed to provide safety net for disadvantaged families, foster care, food stamps, child care, child support, and children’s allowance programs. Read of research and analysis in this area. Overview of social policies and programs that impact children. The U.S. federal system of comparative policies in other countries. P/NP or letter grading.

183. Prevention of Risky Substance Use and Related Problems. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern to parents, communities, and nations. Examination of relations to patterns of drug use and related harms (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Review of evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harms. Using most up-to-date information. P/NP or letter grading.

184. HIV Prevention in U.S. and Developing World. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern to parents, communities, and nations. Examination of relations to patterns of drug use and related harms (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Review of evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harms. Using most up-to-date information. P/NP or letter grading.

185. Preventing Substance Use and Related Conduct Problems. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern to parents, communities, and nations. Examination of relations to patterns of drug use and related harms (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Review of evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harms. Using most up-to-date information. P/NP or letter grading.

186. HIV Prevention in U.S. and Developing World. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern to parents, communities, and nations. Examination of relations to patterns of drug use and related harms (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Review of evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harms. Using most up-to-date information. P/NP or letter grading.

187. HIV Prevention in U.S. and Developing World. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern to parents, communities, and nations. Examination of relations to patterns of drug use and related harms (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Review of evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harms. Using most up-to-date information. P/NP or letter grading.

188. HIV Prevention in U.S. and Developing World. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern to parents, communities, and nations. Examination of relations to patterns of drug use and related harms (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Review of evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harms. Using most up-to-date information. P/NP or letter grading.
231K. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups: Mental Health. (4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Designed to provide students with grounding in social work practice with adults in mental health settings. Emphasis on evidence-based approaches to providing social work services. Exploration of evidence-based intervention approaches that are consistent with knowledge and values of mental health providers. Exploration of role of social interventions applicable to most common mental health problems and barriers to service delivery for this vulnerable population, such as stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.


231P. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups: Gerontology. (4) Formerly numbered 231D.) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level critical analysis of theoretical models related directly to practice with diverse population of older adults. Presentation of comprehensive tools for multidimensional geriatric assessment. How to engage in collaborative treatment planning across range of late-life problems and address impediments to intervention process. Theoretical and practical models for enabling students to serve needs of older clients and their families as they adjust to late-life transitions, as well as to handle mental health problems most prevalent for older adults. Client populations range from well elderly to physically frail and/or demented from diverse backgrounds. S/U or letter grading.

240A-240B. Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings: Community Mapping. (4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Understanding the organizational features of human service organizations that work on people to improve, sustain, or prevent decline of well-being. Because of their function these organizations have special attributes that distinguish them from other organizations. Examination of these attributes, theoretical perspective to study them, and analysis of factors that shape nature of work they do. Explanation of determinants of relationships between workers and clients by looking at such variables as policy environment, values and mission, internal structure, service technology, reward structure, organizational responses to staff and client dilemmas, and interprofessional and intraorganizational power relations between workers and clients. S/U or letter grading.

241H. Advanced Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings: Community Planning. (4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Conceptual framework and analytic tools provided to understand organizational features of human service organizations work on people to improve, sustain, or prevent decline of well-being. Because of their function these organizations have special attributes that distinguish them from other organizations. Examination of these attributes, theoretical perspective to study them, and analysis of factors that shape nature of work they do. Explanation of determinants of relationships between workers and clients by looking at such variables as policy environment, values and mission, internal structure, service technology, reward structure, organizational responses to staff and client dilemmas, and interprofessional and intraorganizational power relations between workers and clients. S/U or letter grading.

244E. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Public Policy M238 and Urban Planning M268.) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social practical and research methods related to major community practice approaches in the context of evidence-based learning and emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.
tice and policy advocacy as problem-solving process. Analysis of consequences of existing social policies, particularly for marginalized populations, development of alternative policies, and use of different advocacy tools/techniques to gain support for policy change. S/U or letter grading.


245A. Epistemology of Practice. (4) Seminar, three hours. Designed for Ph.D. students. Guiding scientific models of practice theories; process of emergence, development, and change of practice theories; intellectual foundations of practice theories; how professionals learn, apply, accumulate, and modify their practice knowledge; science and practice interplay. Letter grading.

245B. Models of Social Work Practice Research. (4) Seminar, three hours. Designed for Ph.D. students. Research for practice, with major emphasis on methods of intervention research that seek to design, test, evaluate, and disseminate innovative intervention technologies. Letter grading.

249A-249B-249C. Foundations of Scientific Inquiry I, II, III. (4-4-4) Lecture, three hours; outside study, nine hours. Limited to Ph.D. students. Introduction to underlying logic(s) of scientific inquiry to provide students with building blocks for independent scholarship. Letter grading. 249A. Experimental and quasi-experimental designs in intervention research, ways of enhancing internal, external, and statistical conclusion validity, and inferring causality. 249B. Enforced requisite: course 249A. Survey design, sampling strategies, and external and construct validity, methods of data collection, and reliability as measurement issue. 249C. Enforced requisite: course 249B. Introduction to array of qualitative research strategies.

251A. Advanced Theory of Social Welfare Practice: Conceptual Approaches to Psychological, Social, and Sexual Violence. (4) Lecture, three hours. Designed for second-year M.S.W. students in macro and clinical social work. One most pervasive aspect of women’s existence has been violence against them as a consequence of their gender. Factual information and critical examination of theories, research, and clinical and policy practices in social work regarding various forms of violence against women and girls in their homes, workplaces, and communities provided. Exploration of macro- and micro-level interventions in social work practice to address impact of violence on communities and individuals. Letter grading.


259. Variable Topics in Statistics in Social Sciences. (4) Lecture, three hours. Limited to graduate students. Designed to provide in-depth understanding of particular topics in area of applied statistics/measurements to graduate students engaged in conducting research in broad array of fields that comprise social sciences. Letter grading.

280A-280B. Knowledge Acquisition, Evidence-Based Practice, and Research in Social Welfare. (1-3) Limited to first-year M.S.W. students. Designed to stimulate student thinking about importance and relevance of evidence in social work practice. 280A. Formerly numbered 280B. Lecture, three hours. Five-week course in Fall Quarter. Introduction to foundations of critical thinking to develop student capacity to examine, analyze, and evaluate knowledge. Examination of variable meanings of research and introduction to some basic components of scientific method. Critical examination of utility and role systematic literature review in evidence-based social work practice. Letter grading (credit to be given only on completion of course 280B). 280B. Seminar, three hours. Five-week course in Spring Quarter. Examination of role of evidence-based practice in social work, including its many and varied meanings. Exposure to utility of single-case designs and role of program evaluation and social work practice. S/U or letter grading.

281A-281B-281C. Advanced Social Welfare Research. (2-2-2) Discussion, two hours. Individual or group research projects requiring intensive examination and analysis of social problem area, directed toward development of research design and methodologies for social work practice. In Progress (281A, 281B) and S/U or letter (281C) grading.

285A-285B-285C. Research in Social Welfare. (4-4-4) Discussion, three hours. Review of areas of research, ongoing theoretical and methodological special attention to design, instrument construction, data collection, data processing, data reduction, analysis, and interpretation. Designs studied include survey, panel, experimental observation, and theory development research. S/U or letter grading.


285E. Research in Gerontology. (4) Lecture, three hours. Overview of research in aging. Development of research questions, selecting appropriate theoretical frameworks, and gathering data from appropriate research design, identifying sampling methods. Special considerations in aging research, including sampling, questionnaire design, and recruitment issues. Letter grading.

285F. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discus- sions of readings about range of research from field of health services. Identification of research design, selecting appropriate research design(s), and operational definition of variables and selection of design and methods as appropriate research methods for health services research, consideration of alternative roles for social work practitioners in arena of health services. Letter grading.


285H. Program Evaluation Research. (4) Lecture, three hours. Discussion of differences and similarities between evaluation and other research, alternative program evaluation methods, roles and limitations of evaluation research in real world, development of proposals for feasible program evaluation research. Letter grading.

285I. Research in Youth Populations. (4) Lecture, three hours. Research methods as applied to prob- lems, issues, and interventions pertaining to youth populations. Instruction and experience in applying experimental and quasi-experimental designs, survey research methods, single-subject designs, and observational methods. Operational definition of variables and selection and design of appropriate measures for research with children and adolescents. Letter grading.

286A. Survey of Research Methods. (4) Seminar, three hours. Basic concepts underlying research methods. Content includes theoretical and conceptual approaches to research problem formulation; research design, selection of research designs, and observational and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286B. Advanced Research Methods. (4) Seminar, three hours. Advanced concepts underlying research methods. Continuing study of theoretical and conceptual approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286C. Research Internship. (4) Fieldwork, four hours. Supervised study and training through participation in on-going research project or one initiated by students and carried out under faculty supervision, enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

290A-290B-290C. Seminars: Social Work. (4-4-4) Seminar, three hours; outside study, nine hours. Seminar provides students dealing with research in social work and social welfare, with focus on current social problems affecting individuals, groups, and communities and new patterns of intervention based on recent demonstra- tions of successful research. S/U grading.

M290L. Children with Special Healthcare Needs: Systems Perspective. (4) (Same as Community Health Sciences M420 and Health Policy and Management M420.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

M290J. Child Welfare Policy. (4) (Same as Public Policy M212.) Lecture, three hours. Design, implementation, and evaluation of public policy as it affects children and families in different cultural backgrounds and as it is given form in public child welfare system. Examination of development of an infrastructure to support needs of children and families. S/U or letter grading.

M290K. Mental Health Policy. (4) (Same as Public Policy M213.) Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and statistical factors that influence need and services they are provided. S/U or letter grading.

M290L. Poverty, Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Urban Planning M246.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward poor in U.S. S/U or letter grading.

M290M. Health Policy. (4) (Same as Public Policy M215.) Lecture, three hours. Design, implementation, and evaluation of public policy directed toward poor in U.S. S/U or letter grading.

M290N. Public Policy for Children and Youth. (4) (Same as Public Policy M216.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M290P. Aging Policy, Elderly Families. (4) (Same as Public Policy M261.) Lecture, three hours; fieldwork, one hour. Design, implementation, and evaluation of public policy directed toward elderly in U.S. and impact on American communities. Policy development, approaches, processes of implementation, evaluation, and strategies to effect policy. S/U or letter grading.


M290R. Law and Poor. (4) (Same as Public Policy M295 and Urban Planning M295.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor
and structure and implementation of law, policy, and administration. Current referent consensus and major reforms.

M290S. Nonprofit Sector, State and Civil Society. (4) (Same as Public Policy M227 and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped development of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

290T. Social Work and Juvenile Justice System. (4) Lecture, three hours; outside study, nine hours. Designated 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 Public Policy M243 and Urban Planning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations. Is problem housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M290V. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Public Policy M226 and Urban Planning M286.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental building blocks for successful management in nonprofit sector. Students develop management skills in strategic thinking/problem solving, project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketing, that nonprofit managers typically face. Letter grading.

290W. International Social Welfare. (4) Lecture, three hours; outside study, nine hours. Intended for graduate students interested in pursuing analysis of key international social welfare issues. Topics approached from perspective of globalization of social, economic, and political activities. Problems of global poverty, social injustice and inequality, and issues of racial, ethnic, and cultural diversity, with emphasis on multifaceted contributions of social work, social services, and social welfare and international social development within rich and poor countries. Acquisition of knowledge of international social welfare activities, as well as analytical skills to address and debate complex international issues. S/U or letter grading.

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

401A-401B-401C. Practicum: Social Work. (3-3-3) Laboratory, 20 hours. Designated for social work, arranged for students in keeping with their major field of study. In Progress (402A, 402B) and S/U (402C) grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of student, adviser, and graduate dean. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketing, that nonprofit managers typically face. Letter grading.

506A. Special Study and Research in Social Welfare. (2 to 8) Tutorial, to be arranged. Individual programming for selected students to permit pursuit of subject in greater depth. S/U or letter grading.

506B. 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 Examinations. (2 to 12) Tutorial, to be arranged. Limited to Ph.D. students. S/U grading.


SOCIETY AND GENETICS
See Institute for Society and Genetics

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Tanya Stevers, Ph.D.
Megan McDonnell Sweeney, Ph.D.

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Richard D. Gramis, Ph.D.
Ka-Yuet Liu, Ph.D.
Gabriel Rossman, Ph.D.
Edward T. Walker, Ph.D.

Scope and Objectives
Sociology is the study of the organization, dynamics, and consequences of social life. The scope of the discipline is as broad and diverse as social life itself. Sociologists study social interaction and relationships, organizations and institutions, communities and whole societies. The methods of sociological investigation are also varied: sociologists immerse themselves in the daily life of groups, interview group participants, examine recorded interaction, interpret historical documents, analyze census data, and conduct large surveys. The methods and concepts of sociology yield powerful insights into the social processes shaping lives, problems, and possibilities in contemporary society. The capacity to identify and understand these processes — a capacity that C.W. Mills called the “sociological imagination”— is valuable preparation for personal and professional participation in a changing and complex world.

In addition to contributing to a liberal arts education, the Sociology major prepares individuals for a broad range of career options and graduate and professional studies. The analytic perspectives and skills gained in the major are
a foundation for careers in law, social welfare, urban planning, business, education, and public health. The major also provides a foundation for students intending to pursue graduate work in sociology and related fields. Employment opportunities available to the graduate with a Bachelor of Arts degree in Sociology also include work in community service organizations and health agencies, government service, and human resources.

The Sociology Department faculty includes internationally renown scholars who address topics ranging in scope from the organization of face-to-face interaction to the consequences of globalization. The department boasts outstanding teachers — five of whom have won Distinguished Teaching Awards — and excellently trained teaching assistants, many of whom have also won awards. The select honors program has a record for training students in the fundamentals of research and generating honors theses of substantial accomplishment.

The 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.**

**Sociology Premajor**

Only students with less than 90 units completed (excluding Advanced Placement units/credit) may declare the Sociology premajor once they complete either Sociology 1 or 20 with a grade of C or better.

**Preparation for the Major**

**Required:** Sociology 1, 20, and one course from Statistics 10, 11, 13, or Psychology 100A. A minimum grade of C is required in each preparation for the major course. Students with a grade-point average less than 2.5 in the preparation coursework are not eligible for admission to the major. Students who repeat any preparation course more than once are automatically denied admission to the major.

**Freshman Students**

Students must petition to declare the Sociology major. All preparation for the major courses should be completed by the end of the Fall Quarter of the third year at UCLA. If Sociology 101 or 102 has already been completed, a grade of C or better is required. Grades in any other completed sociology courses for the major must be C– or better.

**Transfer Students**

Transfer applicants to the Sociology premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introduction to sociology course and one statistics course.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/admis_tr.htm](http://www.admissions.ucla.edu/prospect/admis_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Eleven upper division courses, including (1) two theory courses — Sociology 101, 102; (2) one methods course from Sociology 113 or Statistics 112; (3) one course from each of the following core areas: (a) interactions — Sociology 111, 119, M124A, CM125, 130, 132, 133, 134, (b) institutions and social processes — courses 116, 143, 158, 173, M174, M175, M176, (c) power and inequality — courses 156, 157, M161, M162, M165, 182, 183, 185; and (4) any five upper division sociology elective courses.

Students should complete course 101 and the core courses before taking other upper division courses. Each course for the major must be taken for a letter grade. To graduate, students must have at least a 2.0 grade-point average in their upper division major courses, with grades of C or better in Sociology 101 and 102.

Only 8 units of Sociology 199 are allowed. The two theory courses, three core area courses, and one sociology elective (six courses total) must be taken while in residence in the College of Letters and Science at UCLA.

**Honors Program**

The honors program in sociology provides opportunity for outstanding students to undertake an independent year-long research project under the guidance of a faculty member. Students who successfully complete the honors program graduate with departmental honors.

As preparation for the honors program, students must complete all preparation for the major courses.

After acceptance into the honors program, students are required to take courses 191H, 198A, 198B, and 198C (honors thesis seminars) which may be applied as electives toward the major requirements.

Students must have a 3.5 overall grade-point average, have completed the sociology preparation requirements and, in most cases, have completed the required theory course. Applications are available from the Undergraduate Counselor’s Office, 254E Haines Hall.

**Computing Specialization**

 Majors in Sociology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor's degree in the major, (2) completing Program in Computing 10A, 10B, 10C, and (3) completing Sociology 112, 113. Each course must be taken for a letter grade. Students graduate with a bachelor's degree in sociology and a specialization in Computing.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, [http://grad.ucla.edu/gasaa/library/pgmqrintro.htm](http://grad.ucla.edu/gasaa/library/pgmqrintro.htm). 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.), Candidate in Philosophy (C.Phil.), 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.

2. **Sociology of Black Communities.** (5) (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.

3. **Social Thought and Origins of Sociology.** (5) Lecture; three hours; discussion, two hours. Introduction to history of social thought, with special emphasis on theoretical precursors to development of discipline of sociology. Exposition and analysis of selected social theorists and concepts, especially from the 17th to 19th centuries. Letter grading.

4. **Introduction to Sociological Research Methods.** (5) Lecture; three hours; discussion, one hour. Introduction to methods used in contemporary sociological research, with focus on issues of research design, data collection, and analysis of data. Fieldwork may be required. Letter grading.

5. **Conversation and Society.** (4) Lecture, three hours; discussion, one hour. Examination of social norms that organize conversational interaction in everyday life. Consideration of relationship between conversation and other institutions in society. P/NP or letter grading.

6. **88A-88Z. Lower Division Seminars.** (1 each) Seminar, one hour. Limited to 15 freshmen/sophomores. Variable topics of current sociological interest. Consult Schedule of Classes or “Department Announcements” for topics and instructors. P/NP grading.

**Upper Division Courses**

1. **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.

2. **Contemporary Sociological Theory.** (5) Lecture, three hours; discussion, one hour. Requisite: course 101. Critical examination of significant theoretical formulations from 1920 to present. P/NP or letter grading.

3. **Field Research Methods I.** (6) Lecture, two hours; discussion, two hours; fieldwork, eight to 10 hours. Research practicum in which students write field notes on their experiences in and observations of intensive internship field placement. Readings focus on fieldwork roles and relations, observing and describing, writing field notes, field interviewing, ethical issues, and preliminary data analysis. Fieldwork and extensive field notes required. Letter grading.

4. **Field Research Methods II.** (6) Lecture, two hours; discussion, two hours; fieldwork, 10 hours. Requisite: course 106A. Collection and analysis of both field notes and unstructured interview data from student field placement. Use of techniques of qualitative data analysis, including qualitative coding, analytical memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.

5. **Sociohistorical Methods.** (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. General problems of scientific abstraction, generalization, inference, and verification and particular problems of historical specification, comparison, and
counterfactual reasoning in constructing and testing replicable explanation of historical event. P/NP or letter grading.

111. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks create social structure, how social actors utilize them, and their unexpected effects. Topics include job search, friendship formation, and computer socialization programs, computer simulations, and research project. P/NP or letter grading.

112. Introduction to Mathematical Sociology. (4) Lecture, three hours; laboratory, one hour. Requisites: Statistics 10, Calculus 3A (or equivalent). Emphasis on mathematical techniques such as multiple regression, analysis of variance, or factor analysis. Content varies. Students learn how to use computer and write papers analyzing prepared data sets. P/NP or letter grading.

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 context of study of social stratification, and ethnic and gender inequality. Introduction to elementary, robust analytic tools. P/NP or letter grading.

115. Environmental Sociology. (4) (Same as Environmental Studies 115.) Lecture, four 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 Sociology. (4) Lecture, three hours; discussion, one hour. Examination of demographic behaviors, such as marriage, divorce, and childbearing, associated with family and household organization. Sociological understanding causes and consequences of trends and differentials in family formation and dissolution. P/NP or letter grading.

M118. Simulating Society: Exploring Artificial Communities. (5) (Same as Honors Collegium M148.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/NP or letter grading.

119. Private Societies. (4) Lecture, three hours; discussion, one hour. Private societies and differentials. Select topics on diverse behaviors and cultural forms of private cousins, with special focus on babcas, chimpanzees, and gorillas. Examination of primate sociology, sexual competition, demography and kinship, politics, communication, and interactions within and between groups. Implications for our lives as human primates. P/NP or letter grading.

M122A-M122B. Computer-Related Structures I, II. (4-4) (Same as Communication Studies M144A-M144B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. M122A. Introduction to some structures, their organization of various signals into a meaningful association, such as turn-taking organization, organization of repair, and some basic sequence structures with limited expansions. M122B. Requisite: course M124A. Consideration of some more expand- ed 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/seniors. Practices of communication and social interaction in human society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course C229A.

126. Study of Norms. (4) Lecture, three hours; discussion, one hour. Properties of norms, of normative 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. P/NP or letter grading.

127. Mind and Society. (4) Lecture, two and one-half hours; discussion, one hour. Requisite: course 1. Study of social production of modes of thought and forms of knowledge. Study of ways in which bodies of knowledge and cognitive styles are produced, used, and transformed over historical, national, and extra-ordinary contexts. P/NP or letter grading.

128. Sociology of Emotions. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Design to make participants think of explanations of social conditions shaping and producing emotional experiences; effects of individual expression of emotions on social conditions; relations between thought, sensations, and emotions; self and emotions; social constructions of emotions. P/NP or letter grading.

129. Sociology of Time. (4) Lecture, three hours; discussion, one hour. Conceptualizations of time seen from scientific, philosophical, historical, and sociological perspectives; "cyclical" and "linear" time in primitive, ancient, and medieval societies; ritual, the sacred, and experience of the eternal; structuring of urban, modern, and postmodern societies by clock, calendar, and schedule; future value orientation and notion of process; time, labor, and social domination. P/NP or letter grading.

130. Self and Society. (4) Lecture, three hours; discussion, one hour. Examination of social processes shaping experience, definition, and enactment 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. P/NP or letter grading.

133. Collective Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Characteristics of crowds, mobs, publics, social movements, and revolutions; their relation to social unrest and their role in developing and changing social organization. P/NP or letter grading.

134. Culture and Personality. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed to examine various perspectives of the common human condition: the interplay between culture, personality, and the self; the role of culture in shaping the self; and the role of the self in shaping culture. P/NP or letter grading.

135. Group Processes. (4) Lecture, three hours; discussion, one hour. Systematic study of formation, structure, and functioning of groups; analysis of group processes and group products from variety of theoretical viewpoints. Various research techniques. P/NP or letter grading.

M138. Death, Suicide, and Trauma. (4) (Same as Psychology M163.) Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent death. Suicide is epidemic; homicide is epidemic; and only leading cause for young people aged 15 to 24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as race, social status, and neighborhood. P/NP or letter grading.

141A. Migration and Labor in Mexico-U.S. Context. (5) Seminar, 20 hours; discussion, one hour. Migration is the largest and oldest continuous international population flow of contemporary world. In recent decades, prompted by swift economic transformations, rural and urban Mexicans from every corner of Mexico have joined this migratory flow, settling well beyond southwestern region and into far-reaching areas of U.S. interior. Migration is binding U.S. and Mexico stronger than ever, putting this complex and multifaceted phenomenon at top of bilateral agenda. Examination of sociological dynamics of international migration and labor as they apply to Mexico-U.S. context, including demographic, political, economic, and social infrastructures that support cross-border mobility, and connections of migration with binational, national, regional, and local labor markets. Course examines how to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

141B. Migration and Labor in Mexico-U.S. Context. Research Seminar. (5) Seminar, 10 hours; discussion, one hour. Development of qualitative study and research paper on migration and labor in Mexico-U.S. context. Research topic of interest to be selected so students become familiar with commonly employed qualitative methodologies. Seminar is designed to help students understand basics of methodological reasoning, how to formulate research questions, and how to frame and investigate one particular issue related to migration and labor. How to make ethical decisions about conducting research. Development of student abilities as researchers by conducting secondary and primary research culminating in final research paper to be presented to faculty members and peers. Offered in summer only. Letter grading.

M142. Healthcare in Transitional Communities. (4) (Same as Public Health M151.) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Analysis of different theories to make sense of violation of suicide and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.

145. Sociology of Deviant Behavior. (4) Lecture, three hours; discussion, one hour. Examination of leading sociological approaches to study of deviant behavior and general survey of major types of deviation in American society. P/NP or letter grading.

C146. Sociology of Interpersonal Conflict. (4) Lecture, three hours; discussion, one hour. Origins, development, and outcomes of interpersonal conflicts and troubles that arise in close relationships, households, workplaces, and public places in contemporary society. Seminar. Roundly scheduled with course C229A. Letter grading.

C175A. Sociology of Crime. (4) Lecture, three hours; discussion, one hour. Sociological theories of social origins, organization, and meanings of crime and criminality. P/NP or letter grading.

1475. Sociology of Criminal Justice. (4) Lecture, three hours; discussion, one hour. Examination of crimes and routine decision-making processes of
158. Urban Sociology. (4) Lecture, three hours; dis- cussion, one hour. Description and analysis of urban- ization and urbanism in the U.S. and world. P/NP or letter grading.

159. Comparative Studies of Jewish Communities in the U.S. and Abroad. (4) Lecture, three hours; discussion, one hour. History, distribution, structure, and activities of Jewish communities, with particular emphasis on North America and Israel. In- terrelationships and sources of conflict between Jews and Gentiles in Western countries. More generally, economic and social integration of Jewish communities. Fieldwork may be required. P/NP or letter grading.

160. Intergroup Conflict and Prejudice. (4) Lec- ture, three hours; discussion, one hour. Study of causes and consequences of group conflict, with em- phasis on majority/minority relations, prejudice, and discrimination. Special attention to the role of sociol- ogical and psychological theories in the study of conflict and prejudice and to individual and social contexts. P/NP or letter grading.

161. Comparative American Indian Societies. (4) (Same as American Indian Studies M161.) Lecture, three hours. Requisite: course 1 or American In- dian Studies M161. 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. Lecture grad- ing.

162. Sociology of Gender. (4) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Requisite: course 1 or Gender Studies 10. Ex- amination of processes by which gender is socially constructed. Topics include discrimination between bio- logical sex and societal gender, causes and conse- quences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

163. Gender and Work. (4) (Same as Gender Studies M163.) Lecture, three hours. Requisite: course 1 or Gender Studies 10. Examination of rela- tionship of gender to work, concentrating on the U.S. experience but also including some comparative ma- terial. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

164. Politics of Reproduction. (4) (Same as Gen- der Studies M164.) Lecture, three hours; discussion, one hour. Title refers to intersection between politics and life cycle. Topics include social construction of gender, reproduction and political issues, politica- tion of mothers, motherhood, and mothering, surroga- cy, and new reproductive technologies. Letter grading.

165. Sociology of Race and Labor. (4) (Same as Afro-American and Chicano Studies M165.) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Explora- tion of history and social conditions of Latinos in Los Angeles as well as nationally, with particular empha- sis on their location in larger social structure and on comparisons with other minority groups. Topics in- clude migration, family, education, and work issues. P/NP or letter grading.

154. Race and Ethnicity: International Perspectives. (4) Lecture, three hours; discussion, one hour. Not open to freshmen. Role of race and ethnicity in political, economic, and social lives of nations other than the United States. P/NP or letter grading.

155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M155.) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Explora- tion of history and social conditions of Latinos in Los Angeles as well as nationally, with particular empha- sis on their location in larger social structure and on comparisons with other minority groups. Topics in- clude migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lec- ture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and ethnic structures and meanings. Special at- tention to comparison of African American and Euro- pean American experiences and to transformation of Asian American and Latino communities and the na- tion generally, brought by renewal of mass migration in second half of the 20th century. P/NP or letter grading.

157. Social Stratification. (4) Lecture, three hours; discussion, one hour. Analysis of American social structure and stratification, and problems of methodology. P/NP or letter grading.

159. Comparative Studies of Jewish Communities in the U.S. and Abroad. (4) Lecture, three hours; discussion, one hour. History, distribution, structure, and activities of Jewish communities, with particular emphasis on North America and Israel. In- terrelationships and sources of conflict between Jews and Gentiles in Western countries. More generally, economic and social integration of Jewish communities. Fieldwork may be required. P/NP or letter grading.

160. Intergroup Conflict and Prejudice. (4) Lec- ture, three hours; discussion, one hour. Study of causes and consequences of group conflict, with em- phasis on majority/minority relations, prejudice, and discrimination. Special attention to the role of sociol- ogical and psychological theories in the study of conflict and prejudice and to individual and social contexts. P/NP or letter grading.

161. Comparative American Indian Societies. (4) (Same as American Indian Studies M161.) Lecture, three hours. Requisite: course 1 or American In- dian Studies M161. 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. Lecture grad- ing.

162. Sociology of Gender. (4) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Requisite: course 1 or Gender Studies 10. Ex- amination of processes by which gender is socially constructed. Topics include discrimination between bio- logical sex and societal gender, causes and conse- quences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

163. Gender and Work. (4) (Same as Gender Studies M163.) Lecture, three hours. Requisite: course 1 or Gender Studies 10. Examination of rela- tionship of gender to work, concentrating on the U.S. experience but also including some comparative ma- terial. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

164. Politics of Reproduction. (4) (Same as Gen- der Studies M164.) Lecture, three hours; discussion, one hour. Title refers to intersection between politics and life cycle. Topics include social construction of gender, reproduction and political issues, politica- tion of mothers, motherhood, and mothering, surroga- cy, and new reproductive technologies. Letter grading.

165. Sociology of Race and Labor. (4) (Same as Afro-American and Chicano Studies M165.) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Explora- tion of history and social conditions of Latinos in Los Angeles as well as nationally, with particular empha- sis on their location in larger social structure and on comparisons with other minority groups. Topics in- clude migration, family, education, and work issues. P/NP or letter grading.

154. Race and Ethnicity: International Perspectives. (4) Lecture, three hours; discussion, one hour. Not open to freshmen. Role of race and ethnicity in political, economic, and social lives of nations other than the United States. P/NP or letter grading.

155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M155.) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Explora- tion of history and social conditions of Latinos in Los Angeles as well as nationally, with particular empha- sis on their location in larger social structure and on comparisons with other minority groups. Topics in- clude migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lec- ture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and ethnic structures and meanings. Special at- tention to comparison of African American and Euro- pean American experiences and to transformation of Asian American and Latino communities and the na- tion generally, brought by renewal of mass migration in second half of the 20th century. P/NP or letter grading.
181A-181B. Sociology of Contemporary China. (4-5) Formerly numbered 181.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Each course may be taken independently for credit. P/NP or letter grading. 181A. Exploration of 20th-century changes in China, including end of dynasties, Republican era, Communist Revolution, and market reform. Topical in focus on Chinese social structure and institutions and everyday practices. Survey of changes and analysis of forces shaping contemporary China and global impact and current implications. 181B. Survey of changes in Chinese society from beginning of 20th century to present. Topics include social mobility and inequality, family and household, and population. Emphasis on changes post-1949. For seniors in interest in economic and political change plus family organization. Contrasts and similarities between China and West. China’s place in global society, letter grades due to social organization that originated from studying Western societies.

182. Political Sociology. (4) Lecture, three hours; discussion, one hour. Contributions of sociology to study of politics, including analysis of political aspects of social systems, social context of action, and social bases of power. P/NP or letter grading.


184. Social Change. (4) Lecture, three hours; discussion, one hour. Study of patterns of social change, resistance to change, and change-producing agencies and processes. P/NP or letter grading.

185. American Sociology. (4) Lecture, three hours; discussion, one hour. Analysis of major institutions in the U.S. in historical perspective, with emphasis on topics such as industrialization, work, state, politics, community, family, religion, and American culture. Theories of social change, conflict, and order applied to case of the U.S. P/NP or letter grading.

186. Latin American Societies. (4) Lecture, three hours; discussion, one hour. Social structure and social conflict in Latin America, with special attention to racial and ethnic differences and economic development and political development. Country and specific focus varies each term. P/NP or letter grading.


M191DC. CAPPP Washington, DC, Research Seminars. (8) (Same as History M191DC and Political Science M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features are of significant research; intensive writing. Letter grading.


191F. Undergraduate Seminar: Sociology of Globalization. (5) Seminar, three hours. Limited to juniors/seniors. Great expansion of social relations across globe has occurred over last 50 years. What are causes and mechanisms of this process, how far has it transformed human societies, and how far will it go in future? Economic, cultural, political, and military aspects of globalization, with focus on extent to which global expansion of capitalism, nation-state system, and American imperialism reinforce or undercut each other, producing new lines of division and conflict across world. Reading, discussion, and development of culminating project. Letter grading.

191H. Honors Seminars: Sociology. (4) Seminar, three hours. In-depth introduction to process of producing scholarly sociological research for students who intend to write a thesis for departmental honors. Letter grading.

191I. Undergraduate Seminar: Health and Inequality. (5) Seminar, three hours. Limited to juniors/seniors. Examining health and survival were widening in the U.S. as in other developed societies. Broad overview of these trends and their causes. Reading, discussion, and development of culminating project. Letter grading.

191J. Undergraduate Seminar: Mexican Society. (5) Seminar, three hours. Selected topics on contemporary Mexican society and vital transformations it has undergone in recent years. Reading, discussion, and development of culminating project. Letter grading.

191K. Undergraduate Seminar: Cigarettes and Western Civilization — Sociological History of Smoking. (5) Seminar, three hours. Limited to juniors/seniors. Use of history of tobacco and cigarette smoking to explore important themes in sociology, history, and culture. History of tobacco from its roots in Native American culture, its contribution to foundation of European colonies in New World, its cultural incorporation in western Europe, its role in rise of industrial way of life and health consequences, and its demise as legitimate soft drug for modern urban people. Letter grading.


191N. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Sociology dimensions of patient care in primary care context. Use of microsociological methods to examine main facets of primary care medical visits, including detailed analysis of interactional conduct of those visits and development of microanalytical constructs into quantitative measures. Emphasis on direct contact with empirical materials and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.


191W. Undergraduate Seminar: Communication in Medical Care. (5) Seminar, three hours. Limited to juniors/seniors. Sociology dimensions of patient care in primary care context. Use of microsociological methods to examine main facets of primary care medical visits, including detailed analysis of interactional conduct of those visits and development of microanalytical constructs into quantitative measures. Emphasis on direct contact with empirical materials and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

191X. Undergraduate Seminar: Cultural Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Exploration of historically specific understandings of love, Reading, discussion, and development of culminating project. Letter grading.

191Y. Undergraduate Seminar: Sociology of Gender and Sexuality. (5) Seminar, three hours. Limited to juniors/seniors. Sexuality is important site for enactment of gender and gender identity. Sex preference and sexual behavior can also form basis for social identity, repression, discrimination, and privilege, independent of gender. Social factors such as social class, ethnicity, generation, and networks shape our sexual practices and choice of partners. Reading and writing about variety of sociological, historical, and anthropological texts and development of culminating project. Letter grading.

191Z. Undergraduate Seminar: War and Society. (5) Seminar, three hours. Limited to juniors/seniors. Study of relationship between society's military and its social organization in general, with particular attention to shock, civic militarism characteristic of the West. Topics include honor, discipline, bureaucracy, conscription, logistics, total war, guerrilla war, terror-
Instructors. May be repeated for credit and may be supervised jointly by Center for Community Learning and faculty advisor. Students meet on regular basis with instructor and provide periodic reports of their experience. Normally only 4 units of internship are allowed, with supervising faculty member required. P/NP or letter grading.

195CE. Community and Corporate Internships in Sociology. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in community agency or business to be supervised by faculty from Center for Community Learning and faculty advisor. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and work in small groups with supervising faculty member required. P/NP or letter grading.

M195DC. CAPP Washington, DC, Internships. (4) (Same as History M195DC and Political Science M195DC) Tutorial, four hours. Limited to junior/senior CAPPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP or letter grading.


199. Directed Research in Sociology. (2 to 4) Tutorial, one hour. Preparation: 3.0 grade-point average in major. Requisites: courses 1, M18. Limited to junior/senior Sociology majors. Independent investigation designed for students who want to do research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Capping paper or project required. May be repeated for maximum of 8 units, with no more than 4 in any one term. Individual contract required. See undergrad-uate counselor. P/NP or letter grading.

Graduate Courses

201A-201B-201C. Proseminars: Sociology. (2-2-2) Seminar, two hours every other week. Required of first-year graduate sociology students. Introduction to range of theoretical and research interests represent-ed 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 sociology students. Examination of interrelations of theory, method, and substance in exemplary sociological works, with analytical and skills-centered orientation. In Progress (202A) and S/U or letter (202B) grading.

204. Topics in Sociological Theorizing. (4) Seminar, four hours. Examination of selected issues and problems in classical or contemporary sociological theory. S/U 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 couples. Examination of concepts, theories, and data about kinship. S/U or letter grading.

206. Understanding Fertility: Theories and Methods. (4) (Same as Community Health M206) Lecture, three hours; laboratory, one hour. Preparation: one formal or social demography course. Requisite: Biostatistics 100A. Application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced students interested in population, demography of health, and social demography. Letter grading.


210A-210B. Intermediate Statistical Methods I, II. (4-4) Lecture, three hours; discussion, two hours. 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 for which 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) Lecture, three hours. Required of first-year graduate sociology students. Introduction to comparative and historical analysis, and substantive paradigms of comparative and historical analysis. Reading involves methodological examination of basic works in representative problem areas. 211B. Requisite: Course 211A. 211A. Topics include problem of evidence, quantitative and qualitative data. Techniques of data analysis, including use of manuscript census, content analysis, collective biography, and causal modeling. S/U or letter grading.

212A-212B. Quantitative Data Analysis. (4-4) Lecture, three hours. Requisites: courses 210A, 210B. Course 212A is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in presentation and term paper in style of American Sociological Review or similar journal article. 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 problems of statistical inference, including development and comparison of methods for handling complex sample survey designs. In Progress (212A) and S/U or 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, cohort, time-series designs, contextual, and other designs. Discussion of suitability of various design classes for specific analytic goals, as well as their comparative strengths and weaknesses. S/U or letter grading.

213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health M208, and Economics M208) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demography, calendarization, life table construction, life table decomp-osition 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 M213B) Lecture, three hours. Preparation: exposure to binary response models. Requisites: courses 210A, 210B. Introduction to regression-like analyses in which outcome is time to event. Topics include logit models for discrete-time event history models, Coxian proportional hazards; parametric survival models; S/U or letter grading.

216A-216B. Survey Research Design. (4-4) Lecture, ten minutes; discussion, 90 minutes. Requisites: course 210A. History of survey method; facet metatheory and concept formation; questionnaire and item design; scales, indices typologies; data collection — planning and management, interview, experience sampling; multistage probability sampling, stratification and clustering. Students participate in survey research project. Letter grading.


217B-217C. Ethnographic Fieldwork. (4-4) Seminar, three hours. Recommended requisite: course 217A. Theories and techniques of ethnographic fieldwork. Kinds of problems amenable to ethnographic approaches, methods, and techniques for doing fieldwork, and ethical problems involved in such research. In Progress (217B) and letter (217C) grading.

220. Self and Society. (4) Lecture, three hours. Examination of social and cultural processes shaping definition and experience of the self, embodied inter- actional practices through which the self is construct-ed in everyday and institutional contexts, formation and transformation of self during life course, and construction of collective identity. Letter grading.

222. Foundations of Ethnomethodological, Phenomenological, and Analytic Sociologies. (4) Lecture, three hours. Designed for graduate students. Basic issues, methods, and topics of ethnomethodological, phenomenological, conversation-analytic, and related varieties of inquiry. Central themes such as work and the everyday life of the metadisciplinary, rules/ norms and tacit knowledge, problem of social order, speaking and discourse, constitutive practices, and production of ordinary interaction in first part; guest presentations by invited faculty in second part. S/U or letter grading.
223. Phenomenological and Interactionist Perspectives on Selected Topics. (4) Lecture, three hours. Phenomenological and interactionist perspectives by examining particular body of live or currently unresolved substantive issues. Topics vary; attention on development of phenomenological and interactionist thought on topic of concern, with special concern over divergences and differences among these approaches. Student presentations within and between two approaches. When relevant, attention to logical and historical relations of phenomenology and interactionism of pragmatist, existentialist, and ordinary language philosophers. S/U or letter grading.


227. Sociology of Knowledge. (4) Lecture, three hours. Designed for graduate students. Survey of theories and conditions of social determinants of systems of knowledge and role of intellectual and artistic elites in Western societies. S/U or letter grading.

228. Critical Issues in Macrosociology. (4) Lecture, three hours. Conceptual introduction to area of macrosociology in which exemplary works are read, studied for substance and methods, and critiqued in seminar and in written papers. S/U or letter grading.

C229A. Sociology of Interpersonal Conflict. (4) Lecture, 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 C229A is not requisite to 229B. Theory and research analyzing organization and decision-making processes of variety of people-processing institutions, including police, courts, schools, psychiatry, human service agencies, and medicine. Letter grading.

230A-230B. Comparative Ethnicity, Race, and Nationalism. (4-4) Seminar, three hours. Preparation for independent research in area of comparative ethnicity, race, and nationalism through close reading of key theoretical and empirical works. S/U or letter grading.

230C. Comparative Race, and Nationalism. (4) Seminar, three hours. Introduction to comparative and historical sociology of race and ethnicity to demonstrate merits of double comparative approach to be as comparative as possible at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and nationality) as it does at level of research. Exploration of cases from wide variety of countries, including Australia, Brazil, Colombia, Dominican Republic, Haiti, Mexico, modern China, modern Japan, Nazi Germany, Nicaragua, Rwanda, South Africa, Sudan, and U.S. S/U or letter grading.

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, ethnicity, nationalism. Examination of contemporary “globalization” tendencies of capitalism. Letter grading.

233. Foundations of Political Sociology. (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. Letter grading.

236A-238B. International Migration. (4-4-4) Lecture, three hours. S/U or letter grading.

236A. Lecture, three hours. Comprehensive overview of key current theoretical debates in study of international migration, with focus on exploration of possibilities of comparative (historical and cross-national) research program in field, linking North American, European, and other global experiences of immigration. S/U or letter grading.

236B. 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. Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lectures, oral presentations of student projects, circulation of completed or draft student papers. S/U or letter grading.

237. Seminar: Theory and Research in Comparative Social Analysis. (2) Seminar, two hours. Designed for graduate students. Emphasis on one issue of particular importance for comparative analysis of capitalism and socialism, North America and Western Europe, developed capitalist and socialist countries and Third World, and implications for theory construction and social research. S/U grading.

M238. Feminist Theory. (Same as Gender Studies M238.) Seminar, three hours. Designed for graduate students. Students study current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent “antifeminist” feminists. Discussion of directions for future feminist sociology. Letter grading.

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 topics that are important both in the U.S. and abroad. In Progress (239A) and letter (239B) grading.

241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Gender stratification in society and sociology; extent of gender diversity in human societies past and present; why gender is absent in classical macrosociology; can masculinist paradigms make space for gender or does feminist-informed sociology necessitate fresh approach? S/U or letter grading.

M242. Analysis of Data with Qualitative and Limited Dependent Variables. (4) (Same as Statistics M211.) Lecture, three hours. Requisites: courses 210A, 210B. Introduction to more complex 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.

244A-244B-244C. Conversation Analysis I, II, III. (5-6-6) Lecture, three hours; discussion, two hours. S/U or letter grading. 244A. Introduction to some structures basic to organization of repair, and practices of action formation, story-telling organization, and overall structural organization of repair. 244B. Continuation of introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of word selection and reference to persons, places, time, and action. 244C: Requisites: courses 244A, 244B. Continuation of introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of action formation, story-telling organization, and overall structural organization of repair. S/U or letter grading.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Examination of classical and contemporary approaches to cultural demography, provider of cultural life — Weberian, Durkheimian, Parsonian, and critical — and living traditions they have spawned. Exploration of contemporary efforts at constructing new cultural sociology. Theoretical focus, with consideration of case studies. S/U or letter grading.

246. Sociology of Culture. (4) Seminar, three hours. Theoretical and methodological issues in structural approaches to culture. Perspectives include cultural economics, political economy, and production of culture. S/U or letter grading.

247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experiential approaches to emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressed affect; thought, sensations, and emotions; specialization; cultural and historical emotional expression; measurement of emotions. Letter grading.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Designed for graduate students. Seminar on selected topics on culture and society. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

M249A. Health Professions. (4) (Same as Community Health Sciences M274.) Lecture, three hours. Requisite: Community Health Sciences 210. Sociological examination of concepts “health” and “illness” and role of various health professionals, especially physicians. Attention to meaning of professionalism and professional/client relationships within range of organizational settings. Letter grading.

M249B. Health and Illness Behavior. (4) (Same as Community Health Sciences M275.) Seminar, three hours. Designed for graduate students. Seminar discussion based on student responses to readings on medicalization, health promotion as moral enterprise and consumerism, and preoccupation with body. S/U or letter grading.

250. Sociology of Health. (4) Seminar, three hours. Exploration of literature of human health as product of society. Macro focus and micro focus used to examine relevance of macro organizational features of national society (culture, economy, politics) while maintaining awareness of micro pathways that link these wider influences to personal experience (mind, body, emotion). Main focus on modern industrial societies and organized around many leading issues in sociology of health. S/U or letter grading.

M252. Selected Topics in Sociology of Gender. (4) (Same as Gender Studies M253.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

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 these concepts, current exemplars of research that utilize these concepts, and critical reflection on research traditions. Letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Gender Studies M254.) Lecture, three hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or unified feminist movements possible or is gender too different cross-culturally? S/U or letter grading.

257. Demography of Marriage Formation and Dissolution. (4) Discussion, three hours. Requisite: course 210A; extensive and in-depth critical examination of major approaches to marriage formation and dissolution, with focus primarily on demographic literature. S/U or letter grading.

C258. Talk and Social Institutions. (4) Lecture, four hours. Practices of communication and social interaction in major institutional sites in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course CM125. S/U or letter grading.

259. Social Structure and Economic Change: Historical and Comparative Perspectives. (4) Lecture, four hours. Preparation: at least two upper division courses on China in any social sciences discipline. Introduction to current research questions in Chinese sociology, as well as major themes in study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change before and after 1949. S/U or letter grading.

288A-288B. Mental Health Services for Persons with AIDS. (4-4) Lecture, four hours. Designed for graduate students. Analysis of current research on mental health service systems for persons with AIDS. S/U grading.

289A-289B. Practicum in Conversion Analysis. (2-4) Requisites: courses 244A, 244B. S/U grading.

289A. Data Analysis. Laboratory, two hours. Practice in analysis of conversational data. May be repeated for credit. 289B. Developing Work in Progress. Seminar, three hours. Opportunity to advance research projects in progress and to develop skills of construction in discussion and written presentation. S/U grading.

M290A-M290B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4-4) Same as Education M289A-M289B, Political Science M287A-M287B, and Public Policy M289A-M289B.) Seminar, four hours. Preparation: knowledge about metropolitan American society and institutions at beginning of 21st century. Consideration of best available information on patterns of settlement, changing functions of urban spaces and institutions, and the opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization of workplace and dramatic decline of industrial employment in advanced nations, not only greatly raise stakes on creating equal opportunity, but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M290A) and letter (M290B) grading.


295. Working Group in Sociology. (1 to 4) Discussion, one-half hours every other week. Introduction to historical and theoretically rooted social theory and theoretically sensitive history, following program of Center for Social Theory and Comparative History. Each course may be taken independently for credit. S/U or letter grading.

M296A-M296B. Social Theory and Comparative History. (4-4) Same as History M203A-M203B and Political Science M291A-M291B.) Seminar, three and one-half hours every other week. Introduction to historical and theoretically rooted social theory and theoretically sensitive history, following program of Center for Social Theory and Comparative History. Each course may be taken independently for credit. S/U or letter grading.

M296C. Theories in Cultural History. (4) Same as History M203C.) 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.

C297. Urban and Suburban Sociology. (5) Formerly numbered 297.) Seminar, three hours. History and present condition of cities and suburbs in America, with stress on global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization as it began in early 19th century and still continues. Analysis of city politics, housing and architecture, urban terror, public housing and ghettoes, segregation and integration of neighborhoods, question of gentrification,
immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C191N. Letter grading.

298. Workshop in Culture and Society. (4) Seminar, two hours every other week. Interdisciplinary workshop for graduate students and faculty pursuing theory and research in topics related to interplay of culture and society, whether social, literary, or philosophical in nature. S/U grading.

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


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


South Asian Studies
See International and Area Studies

Southeast Asian Studies
See International and Area Studies

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Scope and Objectives
The Department of Spanish and Portuguese is dedicated to the study and teaching of the languages, literatures, and cultures of the Hispanic heritage in all areas of the world, particularly on the continents of Europe and America. It maintains a strong commitment to the value of original research and professional instruction at all levels of its activities.

Whether studying for the 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 five B.A. programs: B.A. in Spanish, B.A. in Spanish and Community and Culture, B.A. in Spanish and Linguistics, B.A. in Spanish and Portuguese, and B.A. in 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 B.A., M.A., and Ph.D. programs in Chicana and Chicano Studies, B.A. and M.A. programs in Latin American Studies, and M.A. and Ph.D. programs in Comparative Literature.

Undergraduate Study
Two of the majors in the Spanish and Portuguese Department are designated capstone majors: Spanish, and Spanish and Community and Culture.

For the Spanish major, seniors complete a capstone seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate mastery of the Spanish language, along with specific skills and expertise acquired in earlier coursework. Additionally, students acquire a working knowledge of scholarly discourse relative to a specialized topic, conceive and execute an associated project, and engage with a community of scholars, presenting their work to peers and helping to further peers' work through discussion and critique.

For the Spanish and Community and Culture major, undergraduate students participate in community-based experiential learning courses coupled with elective and adjunct courses. Reflective journals, final projects, and in-class presentations are required. Through their capstone work, students should have mastery of the Spanish language, ability to conduct and interpret research to determine the needs of specific communities, critical understanding and ability to apply theories within a service context, sensitivity to diversity and cultural differences, and ability to perform scholarly presentations that tie current issues to research and theory.

Undergraduate Courses
Spanish 1 through 3 use Castells’ Mosaics. The method is inductive. Selected examples are given to enable students to inductively grasp the rules and develop their own grammar. This enables students to use language effectively and creatively. The courses are taught entirely in Spanish — students simultaneously learn to understand, speak, read, and write Spanish.

Students with one or more years of high school Spanish who plan to enroll in Spanish 1 through 25 must take the departmental placement examination. Consult the Schedule of Classes or the department office for more information.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Spanish and Portuguese grammar and/or composition.

Spanish B.A.

Capstone Major

Preparation for the Major
Required: Spanish 25 or 27 or equivalent, and 42 and 44 or equivalent as determined by the undergraduate adviser. Each course must be passed with an average grade of C or better prior to beginning upper division work in the major.
**Transfer Students**
Transfer applicants to the Spanish major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**
**Required:** (1) Two core courses (Spanish 119 and 120), (2) eight upper division Spanish elective courses in literature, culture, linguistics, media, service learning, or interdisciplinary studies, up to two of which may be from an outside department that deals with Spain or Spanish America and have been approved by the undergraduate adviser, and (3) one senior capstone seminar (Spanish 191C).

**Spanish and Community and Culture B.A.**
**Capstone Major**

**Preparation for the Major**
**Required:** Spanish 25 or 27, 42, 44. Each course must be passed with an average grade of C or better prior to beginning upper division work in the major.

**Transfer Students**
Transfer applicants to the Spanish and Community and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**
**Required:** (1) Spanish 100A, 100B, Linguistics 103, 120A, 120B, (2) one course from Linguistics 160 or 165A or 165B, and (3) four upper division Spanish electives, two of which must be from Spanish 160.

**Spanish and Portuguese B.A.**
**Preparation for the Major**
**Required:** Spanish 25 or 27, 42 or 44, Portuguese 27, and 46.

**Transfer Students**
Transfer applicants to the Spanish and Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one year of Portuguese, one Spanish civilization course or one Spanish American civilization course, and one Brazilian culture course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**
**Required:** (1) One course from Spanish 100A or 100B and one course from Portuguese 100A or 100B, (2) Spanish 119, 120, Portuguese 130A, 130B, (3) five 4- or 5-unit upper division elective courses, two of which must be in Spanish and two in Portuguese. Only upper division courses taught in the target language may be applied toward the major.

**Portuguese B.A.**
**Preparation for the Major**
**Required:** Portuguese 27, 46, or equivalent.

**Transfer Students**
Transfer applicants to the Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one nature of language course, one Portuguese civilization course or one Brazilian civilization course, and one Brazilian culture course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**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 that they pursue under the faculty member's guidance through Spanish 198. 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.

**Mexican Studies Minor**
The Mexican Studies minor allows students with an interest in Mexico to augment their major programs with courses that expose them to the history, literature, and culture of Mexico. Given Southern California's proximity to Mexico, the demographics of Los Angeles, and the shared history of Mexico and the Southwest, the minor is a natural complement to many majors.

To enter the minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.
Required Lower Division Courses (8 to 9 units):
Spanish 25 or 27, and one course from History 8A, 8B, 8C, or Spanish 44.

Required Upper Division Courses (20 to 22 units):
Three Mexican culture and literature courses selected from Spanish 135 through 175 in consultation with the undergraduate adviser and two courses from Anthropology 114P, 114Q, Chicana and Chicano Studies M102, Spanish M108A, 120, M135, 132, 142, 172, 184, Ethnolinguistics M108A, History 157B, 160B.

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

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

No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program.

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

Portuguese Minor

To enter the Portuguese minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish.

Required Lower Division Courses (9 units):
Spanish 25 or 27, and M35.

Required Upper Division Courses (20 to 21 units):
Spanish 100A, 100B, and three upper division Spanish electives, two of which must be from Spanish 160.

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

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

No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program.

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

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmintro.htm. 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 Candidate in Philosophy (C.Phil.) and Doctor of Philosophy (Ph.D.) degrees in Hispanic Languages and Literatures.

Portuguese

Lower Division Courses

1. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.


4A-4B. Portuguese Conversation. (2-2) Discussion, three hours. Enforced requisite: course 3 with a grade of B or better. P/NP or letter grading.

11A-11B. Intensive Portuguese. (5-5) (Formerly numbered 102A-102B) Lecture, six hours. Preparatory foreign language experience (other than Portuguese). Development of speaking and reading skills equivalent to those covered in three terms of traditional pattern and to meet special needs of advanced undergraduate and graduate students. P/NP or letter grading.


26. Language and Popular Culture. (4) (Formerly numbered 103.) Lecture, three hours. Enforced requisite: course 3 or 11B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Letter grading.

27. Advanced Composition and Style. (4) (Formerly numbered 105.) Lecture, three hours. Enforced requisite: course 3 or 11B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) (Same as Spanish M35.) Lecture, three hours: discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.


46. Brazil and Portuguese-Speaking World. (6) Lecture, four hours; discussion, one hour (when scheduled). Taught in English. Topical analysis of cultural history of Brazil in context of Portuguese-speaking world, with emphasis on comparative, trans-Atlantic relations, social development, and artistic manifestations. P/NP or letter grading.

Upper Division Courses


130A-130B. Introduction to Literature in Portuguese, (4) Lecture, three hours. Enforced requisite: course 27. Introduction to principal themes, currents, and authors from Brazil in context of Portuguese-speaking world. P/NP or letter grading.

141A. Literature and Film in Portuguese. (4) Lecture, three hours. Taught in English. Study of intertextuality and dialogism, interactions between literary and cinematic fields, question of fidelity, and equivalents between literary and cinematic expression in Portuguese-speaking world. May be repeated for credit with topic change. P/NP or letter grading.

141B. Film, Television, and Society in Brazil. (4) Lecture, three hours. Taught in English. Study of development, evolution, and impact of film and television in Brazil against backdrop of broader social, historical, and cultural contexts. May be repeated for credit. P/NP or letter grading.
141C. Documentary Film. (4) Lecture, three hours. Taught in English. Overview of documentary film production in Portugal and Brazil, with special focus on period since 1985. May be repeated for credit with topic change. P/NP or letter grading.

142A. Brazil and Its Culture. (4) Lecture, three hours. Taught in English. Exploration of roots of contemporary Brazilian through study of broad chronological periods from Brazilian colonization to present and how they shaped idea of Brazilian exceptionalism, racial mixture as source of national identity, and luso-tropicalism and its influence on Brazilian historiography. May be repeated for credit with topic change. P/ NP or letter grading.

142B. Brazil and Portugal in Comparative Perspective. (4) Lecture, three hours. Taught in English. Study of social and cultural links between Portugal and Brazil, with emphasis on issues of migration, dialogue, and contention in historical context. May be repeated for credit with topic change. P/NP or letter grading.

142C. Travel Narratives, Testimony, Autobiography. (4) Lecture, three hours. Taught in English. Exploration of roots of contemporary Brazilian through study of broad chronological periods from Brazilian colonization to present and how they shaped idea of Brazilian exceptionalism, racial mixture as source of national identity, and luso-tropicalism and its influence on Brazilian historiography. May be repeated for credit with topic change. P/ NP or letter grading.

Graduate Courses

M200. Research Resources. (4) Same as Spanish M200.) Lecture, three hours. Identification and use of research resources for graduate students.


M204A-204B. Generative Grammar. (4-4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semiotics, and phonology on style, metaphor, and meter.


227. 19th-Century Brazilian Literature and Culture. (4) Formerly numbered C227.) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.


249. Folk Literature of Spanish and Portuguese. (4) Formerly numbered C249.) Lecture, three hours. Intensive study of folk literature of Spanish and Portuguese cultures as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech. S/U or letter grading.

251A-M251B. Studies in Galician-Portuguese and Old Spanish. (4-4) (Same as Spanish M251A-M251B.) Lecture, two hours. Study of problems related to historical development of Galician-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.


255. Studies in Modern Brazilian Literature. (4) Discussion, two hours. S/U or letter grading.


260. Special Topics. (4) Discussion, two hours. Designation of topics. May be repeated for credit for course 260. Consent of Class or department counselor for topics to be offered in a specific term. P/NP or letter grading.


Spanish

Lower Division Courses

1. Elementary Spanish. (4) Discussion, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.


5. Intermediate Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 4. P/NP or letter grading.


7. Advanced Conversation. (2-2) Discussion, three hours. Consent of Class or department counselor for topics to be offered in a specific term. P/NP or letter grading.

8. Advanced Conversation. (2-2) Discussion, three hours. Consent of Class or department counselor for topics to be offered in a specific term. P/NP or letter grading.

9. Advanced Conversation. (2-2) Discussion, three hours. Consent of Class or department counselor for topics to be offered in a specific term. P/NP or letter grading.

10. Intensive Elementary Spanish. (12) Lecture, 20 hours. Intensive elementary instruction in speaking, listening, reading, and writing equivalent to courses 1-
2, and 3, with emphasis on Spanish grammar and Hispanic culture. Offered in summer only. P/NP or letter grading.

11A-11B. Catalan Language and Culture I, II. (4-4) (Formerly numbered 102A-102B.) Lecture, six hours. Introduction to oral and written Catalan language. Two-term accelerated language sequence equivalent to three terms of traditional pattern and designed for advanced undergraduate and graduate students. P/NP or letter grading. 11A. Preparation: at least two years of college-level Spanish, Portuguese, or another Romance language other than Catalan. 11B. Requi- site: course 11A.

25. Advanced Conversation and Composition. (4) Lecture, three hours. Enforced requisite: course 5. Emphasis on development of communicative abilities, both verbal and written, as well as on increasing com- prehension of variety of forms of cultural production in Spanish language and on preparation for more ad- vanced Spanish courses. P/NP or letter grading.


28A. Spanish for Special Purposes: Medical. (4) Lecture, three hours. Enforced requisite: course 5. Pract- ice in reading, writing, and speaking Spanish using appropriate vocabulary and cultural situations for students who wish to work in the field of medi- cine, business, law, etc. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) (Same as Portuguese M35.) Lecture, three hours; discussion, one hour. Introduction to lan- guage study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cul- tural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

42. Iberian Culture. (5) (Formerly numbered M42.) Lecture, three hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spain, with emphasis on artistic, eco- nomic, social, and historical development as back- ground for upper division courses. P/NP or letter grad- ing.

44. Latin American Culture. (5) (Formerly num- bered M44.) Lecture, three hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

52. Hispanic Literatures in Translation. (4-4-4) Lecture, three hours. Class readings and analy- sis of selected works in translation. Classroom dis- cussion, papers, and examinations in English. 60A. Spanish Literature; 60B, 60C. Spanish-American Litera- ture; 60C. Don Quijote.

88A-88Z. Lower Division Seminars. (4 each) Semi- nar, three hours. Knowledge of Spanish not essential. Variable topics courses designed to explore various themes and issues pertinent to Hispanic language and culture.

97. Variable Topics in Spanish. (2) Lecture, two hours. Variable topics course with lectures, discus- sions, and papers; consult Schedule of Classes or department for topic to be offered in specific term. May be repeated for credit. P/NP or letter grad- ing.

Upper Division Courses

100A-100B. Introduction to Study of Spanish Grammar. (4-4) Lecture, three hours. Requisite: course M35. 100A. Phonology and Morphology. Analy- sis of phonemic and morphological systems of Spanish. 100B. Syntax. Study of syntactical systems of Spanish.


120. History of Literature. (4) (Formerly numbered 120A.) Lecture, three hours; discussion, one hour. Requisite: course 25. Introduction to different ways of looking at literary works as historical phenomena. Presentation of major models for writing the history of literature: great narratives, cyclic, teleological, sacred, and pro- fane conceptions. Traditional concepts of literary his- tory and problems of mixed categories (historical ep- ochs versus epochs of style, national history, and world literature). P/NP or letter grading.

130. Topics in Medieval Studies. (4) (Not same as course 130 prior to Fall Quarter 2010.) Lecture, three hours. Requisite: course 25. Exploration of medieval literatures: lyric and prosaic, history and society of the 20th century, with emphasis on its literary and linguistic diversity. Possible topics include Convivencia (peace- ful coexistence), Europe and Orient, beginnings of In- quisition, oral versus written traditions, origins of His- pano-Christian expansion beyond peninsula, and flowering of Al-Andalus. May be repeated for credit with topic change. P/NP or letter grading.

135. Topics in Early Modern Studies. (4) Lecture, three hours; discussion, one hour. Exploration of 16th and 17th centuries, with focus on early modern period of Spain and Spanish America. Possible topics in- clude Spanish colonization and indigenous respons- es, transatlantic literary and visual baroque, race and religion in construction of early modern nation, trans- atlantic fications, early modern identities and theatrical representations, literary and cultural history, transatlantic poetics and poetry. May be repeated for credit with topic change. P/NP or letter grading.

140. Topics in Modern Studies. (4) (Not same as course 140 prior to Fall Quarter 2010.) Lecture, three hours. Requisite: course 25. Exploration of major liter- ary movements and writers of 18th and 19th centuries in Spain and Spanish America. Possible topics in- clude Enlightenment, Romanticism, nation-building lit- erature, realism and naturalism, and works by Cada- lis, Concolorcorvo, Lizardo, Larra, Sarmiento, Béc- quer, Isaacs, Mera, Villarende, and Galdo. May be repeated for credit with topic change. P/NP or letter grading.

145A-M145B. Introduction to Chicano Litera- ture. (4-4) (Same as Chicano and Chicano Studies M145A-M145B.) Lecture, three hours. Requisite: course 25 or 27. Introduction to texts representative of the Chicano literary tradition. May be repeated for credit with topic change. P/NP or letter grading.

146. Chicano Narrative. (4) (Same as Chicana and Chicano Studies M146.) Lecture, three hours. In- troduction to narrative literature. Introduction to Chicano Chicano language tradition — Corrido, Semblanza, chroni- cle, autobiography, novel, romance, and satire. Em- phasis on way in which narrative forms are formed by and address specific social/historical problems. P/NP or letter grading.

150. Topics in Contemporary Studies. (4) Lecture, three hours. Requisite: course 25. Exploration of main trends that characterize contemporary Latin American and Spanish literatures and of main con- cepts used to address them. Possible topics include transculturation and heterogeneity, race and ethnicity, vanguard movements, literature and popular cultures, literary modernization in Latin American boom, litera- ture and revolution, autobiography, women's writing, border literature, and postmodernist fiction. May be repeated for credit with topic change. P/NP or letter grading.

155. Topics in U.S. Latino Studies. (4) Lecture, three hours. Requisite: course 25. Exploration of spread of Spanish-American literature and culture throughout North America, including literatures that have emerged with growth of civil rights, recent demo- graphic changes, new transnational identi- ties, and mixed citizenships of U.S. Latinos and Lati- nos. Chicano, Puerto Rican, Cuban American, Cen- tral American American, South American American, and Jewish and Spanish literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

160. Topics in Spanish Linguistics. (4) Lecture, three hours. Requisite: course 25. Exploration of ori- gin of language, how Spanish is acquired, evolution of Spanish from Latin to early modern period, how Spanish varies in world, how to teach Spanish, Span- ish in contact with other languages. Possible topics in- clude Spanish in Los Angeles, history of Spanish lan- guage, first- and second-language acquisition, lan- guage and cognition. May be repeated for credit with topic change. P/NP or letter grading.

M165SL. Taking It to Street: Spanish in Communi- ties. (5) (Same as Applied Linguistics M165SL.) Semi- nar, three hours; fieldwork, 10 hours. Requisite: course 25 or 27. Service learning course to give stu- dents opportunity to use cul- ture acquired in Spanish classes in real-world set- tings. Students required to spend minimum of eight to 10 hours per week at agreed on site in Latino communi- ties. P/NP or letter grading.

170. Topics in Media, Interdisciplinary, and Trans- historical Studies. (4) Lecture, three hours; discus- sion, one hour (when scheduled). Requisite: course 25. Intersection between primordial, oral, and live arts, and way they exist in mass media, new technologies, and different platforms. Possible topics include visual cultures in Latin America, Latin American and Span- ish cinema, musical cultures and literature, live arts and performance in popular culture, three-dimension- al modeling of material culture, and architecture of medieval Iberia. May be repeated for credit with topic change.

M172SL. Latinos, Linguistics, and Literacy. (5) (Same as Applied Linguistics M172SL, Chicana and Chicano Studies M170SL and Honors Collegium M128SL.) Seminar, four hours; field project, four to six hours. Recommended requisite: course 100A. In- depth study of various topics related to literacy, includ- ing different definitions of literacy, programs for adult preliterates, literacy and gender, approaches to litera- cies, literacy and cultural analysis, literacy and writing (whole language, phonics, Freire's liberation peda- gogy), history of writing systems, phoneme as basis for alphabetic writing, and national literacy cam- paigns. Required field project involving Spanish- speaking adults in adult literacy programs. P/NP or letter grading.

175. Topics in Creative Writing and Translation. (4) Seminar, three hours. Requisite: course 25. Ex- ploration of art of translation or creative writing. Guest speakers or instructors include professional literary translators, poets, novelists, playwrights, and film- makers who discuss theory, methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and Culture I, II. (1-2) Tutorial, one hour. Requisite: course 25 or 27. Designed as adjunct to upper divi- sion course in Hispanic literature, language, and cul- ture. Exploration of topics in greater depth through supplemental readings, papers, community service, or other activities. Course 187A may be repeated only for credit. P/NP or letter grading.

191A. Variable Topics in Spanish: Studies in His- panic Literature and Linguistics. (4) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Variable topics course with readings, discussions, and development of culminating project. Consult Schedule of Classes or department counselor for topic to be of- fered in specific term. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requisites: courses 119, 120, and at least three upper division elective courses required for majors. Limited to senior Spanish majors. Knowledge from previous coursework used to address current trends in discipline; students work with one faculty member on one focused research topic. Culminating paper required. Letter grading.

195. Community Internships in Spanish. (4) Tutorial, one hour; fieldwork, 10 hours. Requisite: course 25 or 27. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide journal of their experience. Final research paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Spanish. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Asigned reading and tangential evidence of mastery of subject matter. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for a maximum of 8 units. Individual contract required. P/NP or letter grading.


199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Requisite: course 25. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) (Same as Portuguese M200.) Lecture, three hours. Identification and use of materials for research. Enforced requisites: graduate standing.

M201A-M201B. Literary Theory and Criticism. (4-4) (Same as Portuguese M201A-M201B.) Lecture, three hours. Definition, discussion, and application of current trends in literary theory and criticism. Class meetings.

202A. Phonology. (4) Lecture, three hours. Study of the sound structure of Spanish and main phonological processes that map underlying representations into surface representations. Bearing of phonological theory on study of meter.

202B. Morphology. (4) Lecture, three hours. Study of derivational and inflectional word formation processes and their interaction with syntactic structure.

204A-204B. Generative Syntax and Semantics. (4-4) Lecture, three hours. Study of syntactic structure of Spanish and relation between underlying representations and logical form within a principles-and-parameters framework. Bearing of syntactic and semantic structure on study of literature.

M205A-M205B. Development of Portuguese and Spanish Languages. (4-4) (Same as Portuguese M205A-M205B.) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages and cultures from spoken Latin.

209. Dialectology. (4) Lecture, three hours. Major dialect areas of peninsular and American Spanish, with distinguishing features of each. Influence and contribution of cultural and historical features, including indigenous languages, to their formation.

221. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

222. Medieval Epic and Narrative Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

223. Medieval Prose. (4) Lecture, three hours. Readings of and lectures on Spanish prose from the beginning to 1500.

224. Poetry of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

225. Drama of the Golden Age. (4) Lecture, three hours. Readings of and lectures on the comedia.


228. The Enlightenment. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

229. Romanticism. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

230. Realism and Naturalism. (4) Lecture, three hours. Readings of and lectures on literary works, principally novels, from 1850 to 1898.

231. Major Currents in Modern Spanish Literature. (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parnassianism, and the Generation of 1898.

232. Spanish Prose Literature from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

233. Spanish Prose Literature after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

234. Spanish Drama and Poetry from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems.

235. Spanish Drama and Poetry after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems of the period.


237. The Literature of the Spanish Conquest. (4) Lecture, three hours. Readings of and lectures on chronicles, poems, and indigenous accounts of the Spanish Conquest.


241A-241B. Contemporary Spanish-American Short Story. (4-4) Lecture, three hours. Study of important short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Poetry. (4-4) Lecture, three hours. Intensive study of important poets of Spanish America from modernism to the present.

244A-244B. Contemporary Spanish-American Novel. (4-4) Lecture, three hours. Study of important novelists from modernism to the present.


247. Chicano Literature. (4) Lecture, three hours. Study of major movements and authors of Mexican American literature.

M249. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Portuguese M248.) Lecture, three hours. Intensive study of folk literature of Spanish and Portuguese cultures as represented in (1) ballad and poetry; (2) narrative and drama; (3) speech. S/U or letter grading.

M251A-M251B. Studies in Galaean-Portuguese and Old Spanish. (4-4) (Same as Portuguese M251A-M251B.) Lecture, two hours. Study of problems related to historical development of Galaean-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

256A-256B. Studies in Spanish Linguistics. (4-4) Lecture, two hours. Study of problems in analysis and description of the contemporary Spanish language. Each course may be repeated once with topic change and consent of appropriate guidance committee.

257. Studies in Dialectology. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

262A-262B. Studies in Medieval Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

264A-264B. Studies in Old Spanish Literature. (4-4) Discussion, two hours. Each course 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) Lecture, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

289. Special Topics. (4) Lecture, two hours. Variable topics. Enforced prerequisites: instructor's consent and consent of appropriate guidance committee.

290. Colonial Studies Research Group. (2-2) Research group meeting, two hours. Limited to graduate students. Discussion and analysis of colonial manuscripts. Specific topics vary from year to year. Production of student papers for publication and/
or presentation at conferences or symposia. 291A. S/ U grading; 291B. Requisite: course 291A. May be repeated for credit. S/U or letter grading.


296. Graduate Research Group. (2) Research group meeting, two hours. Limited to graduate students. Designed to bring together graduate students in seminar setting with one or more faculty members to discuss and critique individual research projects, especially dissertation research. S/U grading.

M299. Research Resources for European Studies. (2) (Same as French M299, German M299, Information Studies M299, Italian M299, and Slavic M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and on-line 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.


373. Teaching Composition. (2) Designed for graduate students. Seminar on teaching writing in Spanish language courses. Introduction to composition theory. Instruction and practice in integrating writing into curriculum, setting goals and standards, designing and sequencing course materials, evaluating and commenting on papers. May not be repeated for credit. S/U grading.

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

490. Using Technology in Foreign Language Classroom. (4) Discussion, two hours. Designed for graduate students. Theory and practice of using technology in foreign language classroom. Computer applications that facilitate instruction of grammar, discourse, culture, and composition, as well as evaluation and communication between students and instructor. S/U grading.


596. Directed Individual Study or Research. (4 to 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 4 units may be applied toward M.A. course requirements. S/U or letter grading.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for M.A. comprehensive examination or Ph.D. qualifying examinations. May be taken only once for each degree examination and only in terms that comprehensive or qualifying examinations are to be taken. S/U grading.


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**Statistics**

**College of Letters and Science**

**UCLA**

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Rebecca J. Emigh, Ph.D.

Sander Greenland, Ph.D.

Mark S. Handcock, Ph.D.

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Qing Zhou, Ph.D.

Hongjing Lu, Ph.D.

**Adjunct Associate Professors**

Amy J. Braverman, Ph.D.

Ivaylo D. Dinov, Ph.D.

**Academic Administrator**

Robert L. Gould, Ph.D.

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**Scope and Objectives**

With the advent of fast computing and the subsequent flood of data detailing almost every aspect of our daily lives comes an urgent need for scientists trained in modern statistical methodologies.

Both the undergraduate and graduate programs are structured around three core course sequences that introduce students to the science of data: theoretical statistics, data analysis, and statistical computing. This balance reflects the scale and complexity of problems that statisticians are now routinely called to address. Additional course offerings reflect the work of faculty members in bioinformatics, sensor networks, environmental studies, finance, and computer vision.

Courses and workshops for secondary school teachers of statistics are also offered in order to promote sound statistics pedagogy throughout the curriculum.

Reflecting diverse research interests, the Statistics Department is organized around several centers that collectively provide undergraduate and graduate students rich opportunities for specialized study. These include the Center for Environmental Statistics, Center for Image and Vision Sciences, Center for Statistical Computing, Center for Statistical Research in Computational Biology, and Center for the Teaching of Statistics.

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**Undergraduate Study**

The Statistics major is a designated capstone major. Undergraduate students work in small groups to solve problems posed by real community-based or campus-based clients. The capstone gives students an opportunity to put into practice concepts and ideas that otherwise might remain theoretical and/or abstract and to synthesize the many topics they have studied. Students should demonstrate ability to restate investigative questions in terms of statistical models or algorithms, find appropriate research literature to support their work, relate theoretical concepts to real-world problems, and clearly communicate their results to nontechnical audiences.

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**Undergraduate Courses**

Students planning to pursue advanced degrees in statistics should enroll in the Statistics 100 sequence. Most courses are offered once or twice each year; students interested in either the major or minor in Statistics should meet with the student affairs officer early in their careers.

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**Statistics B.S.**

**Capstone Major**

The Statistics major is designed to provide a general introduction to the practice of statistics for students who intend to pursue study at the...
graduate level or seek employment in industry or government. Courses are selected to provide sufficient theoretical background for future graduate-level research work, exposure to modern techniques and practices, and experience in fields of application.

It is strongly recommended that students, in conjunction with the B.S. degree, pursue a minor in a substantive discipline that applies statistics. Students are required to consult with the undergraduate faculty adviser to ensure that the minor selected is one in which statistics is applied.

Statistics Premajor
Incoming freshman and transfer students may be admitted as Statistics premajors on acceptance to UCLA. Premajor students must apply for the major after completing Mathematics 33A, Program in Computing 10A, and one course from Statistics 10 through 14, with grades of C or better, and a grade-point average of 2.5. Any students who meet the premajor requirements may declare the major with the undergraduate adviser in 8117A Math Sciences, (310) 206-3742.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, Program in Computing 10A, and one course from Statistics 10 through 14. Each course must be completed with a grade of C or better. Students who repeat any preparation course more than once are automatically denied admission to the major.

Transfer Students
Transfer applicants to the Statistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission: two years of calculus, one linear algebra course, and one statistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Statistics 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, two capstone statistical consulting courses (140SL, 141SL), and two upper division elective courses selected from 130, C151 through 199, Mathematics 131A, 131B, 151A, 151B, 170B, 171, 172A, 172B. Elective courses from outside the department are selected in consultation with the undergraduate faculty adviser.

Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

Students planning to continue their study of statistics at the graduate level are strongly advised to include in their schedule as many of the following courses as possible: Mathematics 131A, 131B, 151A, 151B, 170B, 171.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Statistics Minor
The Statistics minor is designed to provide a solid background in statistics for students majoring in other disciplines.

To enter the minor, students should have successfully completed one course from Statistics 10 through 14 with a letter grade, have an overall grade-point average of 2.0 or better, and file a petition with the undergraduate adviser in 8117A Math Sciences, (310) 206-3742.

Required Lower Division Courses (9 units): Statistics 10 and Mathematics 31B.

Required Upper Division Courses (28 units):
Seven upper division courses selected from one of the following options: (1) any two sequences from Statistics 100A, 100B, 100C, 101A, 101B, 101C, and 102A, 102B, 102C, and one elective course or (2) two courses from each of the above sequences and one elective course. Electives may be selected from any upper division statistics course. Statistics 199 may be applied as one of the electives for both options. Course 100A and 189 may not be applied toward the minor.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gsasaas/index.htm. 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.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Statistics.

Statistics
Lower Division Courses

10. Introduction to Statistical Reasoning. (5) Lecture, three hours; discussion, one hour; computer laboratory, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, 12, 13, 14, or former course 10H. Introduction to statistical thinking and understanding, including strengths and limitations of basic experimental designs, graphical and numerical summaries of data, inference, regression as descriptive tool. P/NP or letter grading.

11. Introduction to Statistical Methods for Business. (5) Lecture, three hours; discussion, one hour; computer laboratory, one hour. Requisite: one of the following: Mathematics 3A or 31A. Not open for credit to students with credit for course 10, 10H, 12, 13, 14, 100A, 100B, 100C, Mathematics 170A, or 170B. 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.

12. Introduction to Statistical Methods for Geography and Environmental Studies. (5) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 11, or 13. Introduction to statistical thinking and understanding, with emphasis on techniques used in geography and environmental science. Underlying logic behind statistical procedures; estimation in statistical thinking, strengths and limitations of statistical summaries, and fundamental inferential tools. Emphasis on applications in geography and environmental science in laboratory work using professional statistical analysis package, including spatial statistics. P/NP or letter grading.

13. Introduction to Statistical Methods for Life and Health Sciences. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: Mathematics 31A. Not open for credit to students with credit for course 10, 10H, 11, 12, or 14. Presentation and interpretation of data, descriptive statistics, introduction to correlation and regression and to basic statistical inference (estimation, testing of means and proportions, ANOVA) using both bootstrap methods and parametric models. P/NP or letter grading.

14. Introduction to Statistical Methods in Physical Sciences and Engineering. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: Mathematics 31A. Not open for credit to students with credit for course 10, 10H, 11, 12, or 13. Introduction to conceptual and technical aspects of statistics, with attention to applications of physical sciences and engineering. Topics include data collection and experimental design, uncertainty in measurement, descriptive statistics, introduction to time series and regression. Laboratory component to learn data analysis on real data and fundamental techniques of computer statistical analysis, including bootstrap methods. P/NP or letter grading.

35. Introduction to Probability with Applications to Poker. (4) Formerly numbered 35B. Lecture, four hours; discussion, one hour. Exploration of some main topics in introductory probability theory, especially discrete probability problems, that are useful in a wide variety of scientific applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, univariate distributions, Markov processes, and Brownian motion. Examination of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.

68. Sophomore Seminars: Statistics. (2) Seminar, two hours. Requisite: one course from 10, 11, 12, 13, or 14. Limited to 20 lower division students. Readings and discussions designed to introduce students to current statistical consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.

Upper Division Courses

100A. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A. Open to graduate students. Students may receive credit for only two of the following: course 100A, former course 110A, Biostatistics 100A. Probability distributions, random variables, vectors, and expectation. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A or Mathematics 170A. Survey sampling, estimation, testing, data summary, one- and two-sample problems. P/NP or letter grading.

100C. Linear Models. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. Theory of linear models, with emphasis on matrix approach to

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Markov processes, and Brownian motion. Examination of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.

68. Sophomore Seminars: Statistics. (2) Seminar, two hours. Requisite: one course from 10, 11, 12, 13, or 14. Limited to 20 lower division students. Readings and discussions designed to introduce students to current statistical consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.

Upper Division Courses

100A. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A. Open to graduate students. Students may receive credit for only two of the following: course 100A, former course 110A, Biostatistics 100A. Probability distributions, random variables, vectors, and expectation. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A or Mathematics 170A. Survey sampling, estimation, testing, data summary, one- and two-sample problems. P/NP or letter grading.

100C. Linear Models. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. Theory of linear models, with emphasis on matrix approach to
linear regression. Topics include model fitting, extra sums of squares principle, testing general linear hypothesis in the regression procedure. Gauss- Markov theorem, examination of residuals, principle component regression, stepwise procedures. P/NP or letter grading.

101A. Introduction to Design and Analysis of Experiments. (4) Lecture, three hours; discussion, one hour. Requisite: course 10, 11, 12, 13, or 14, and Mathematics 32B. Fundamentals of collecting data, including components of experiments, randomization and blocking, completely randomized design and ANOVA, multiple comparisons, power and sample size, and block designs. P/NP or letter grading.

101B. Introduction to Data Analysis and Regression. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Mathematics 33A. Recommended: course 102A. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical influence. P/NP or letter grading.

101C. Introduction to Regression and Data Mining (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101B. Designed for juniors/seniors. Applied regression analysis, with emphasis on generalized linear model (e.g., multiple regression) and penalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical influence. P/NP or letter grading.


102B. Introduction to Computation and Optimization for Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B, Mathematics 33A. Introduction to computational methods and optimization useful for statisticians. Use of computer programming to solve statistical problems. Topics include vector/matrix computation, multivariate normal distribution, principal component analysis, clustering analysis, gradient-based optimization, EM algorithm for missing data, and dynamic programming. P/NP or letter grading.


105. Statistics for Engineers. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Electrical Engineering 131A or Mathematics 170A. Foundation of basic concepts and techniques of statistics. Topics include sampling distributions, statistical estimation, hypothesis estimation, (hypothesis testing), statistical inferences, and hypothesis testing, with emphasis on application of these concepts. Discussion of methods for checking whether assumptions required for the above methods are appropriate for given set of data. P/NP or letter grading.


116. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 111B and 101C. One course from 10, 11, 12, 13, and one upper division statistics course using regression. Designed for social sciences graduate students and advanced undergraduate students seeking training in data analysis and methods as used in the social sciences. Concurrently scheduled with course C216. P/NP or letter grading.

130. Getting Up to Speed with SPSS, Stata, SAS, and R. (4) Lecture, three hours; discussion, one hour. Preparation: basic statistics, basic computer literacy. Study of four commonly employed solutions — SPSS (Statistical Package for Social Sciences), Stata, SAS (Statistical Analysis System), and R — for data analytic and statistical issues in health sciences, engineering, economics, and government. Emphasis on applied problem solving, measurement issues, use of computer for analysis of large-scale data. P/NP or letter grading.

140SL. Practice of Statistical Consulting. (4) Lecture, one hour; discussion, two hours. Enforced requisite: course 140SL. Designed for advanced undergraduate students and graduate students. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, share experiences, exchange ideas, and make reports. On-site visits as necessary. Concurrently scheduled with course C260. P/NP or letter grading.

141SL. Practice of Statistical Consulting. (4) Seminar, one hour; research group meeting, two hours. Enforced requisite: course 140SL. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, share experiences, exchange ideas, and make reports. On-site visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. In Progress grading (credit to be given only on completion of course 141SL). P/NP or letter grading.

141SL. Practice of Statistical Consulting. (4) Seminar, one hour; research group meeting, two hours. Enforced requisite: course 140SL. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, share experiences, exchange ideas, and make reports. On-site visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. Letter grading.

151. Experimental Design. (4) Lecture, three hours. Requisite: course 100C or 101B. 101A. Basic principles, analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial experimental designs, minimum aberration designs, robust parameter designs. Concurrently scheduled with course C225P. P/NP or letter grading.

153. Statistical Analysis with Missing Data. (4) Lecture, three hours. Requisite: course 102A. Study of methods dealing with nonresponse and missing data, including introduction to terminology, limitations of simple methods, and modern methods for dealing with missing data, such as EM algorithm and multiple imputation. P/NP or letter grading.

154. Measurement and Its Applications. (4) (Same as Psychology M144.) Lecture, three hours. Requisite: one course from 10, 11, 12, 13, 14, or Psychology 100A. Selected theories for quantification of psychological, educational, social, and behavioral science data. Classical test, factor analysis, generalizability theory model, observational ordinal measurement, computer-adaptive, and related theories. Construction of tests and measures and their reliability, validity, and bias. P/NP or letter grading.

155. Applied Sampling. (4) (Formerly numbered C155.) Lecture, three hours; laboratory, one hour. Designed for upper division and graduate students in social or life sciences and those who plan to major in Statistics. Topics include methods of sampling from finite populations, sources of sampling and estimation, and methods of generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course CM248. P/NP or letter grading.

157. Probability and Statistics Data Model and Analysis Using Statistics Online Computational Resource. (4) Lecture, three hours; discussion, one hour. Preparation: one engineering, mathematics, or statistics course in probability, or approved Program in Computing 20A. Probability and statistics topics in data-driven and interactive manner using open Internet resources. Varieties of data, study-designs, and applications arising from biomedical, research, and simulated data to prepare students for innovative multidisciplinary research. Use of Statistics Online Computational Resource (SOCR). P/NP or letter grading.

160. Site-Specific Topics. (4) Seminar, three hours. Tracking of invisible flows of data through greater Los Angeles metropolitan area, with focus on small number of specific sites situated prominently in both physical and virtual (data) spaces. Documentation of kinds of data that originate, terminate, or simply route through each location. Consideration of analyses (visual, computational, or simply informal), decisions that are made, and outcomes that are taken on basis of these data, whether they be human or automated responses. Documentation of how patterns of data acquisition and analysis dictate behaviors, enable interaction through movement and communication, and manifest community. Alterations or additions to data flows that could improve quality of life for inhabitants of or visitors to sites. May be repeated for credit; however, only one C160 may be applied toward major or minor requirements. Concurrently scheduled with course C260. P/NP or letter grading.

161. Introduction to Pattern Recognition and Machine Learning. (4) Lecture, three hours; discussion, one hour. Preparation: basic statistics, computer literacy. Study of four commonly employed solutions — SPSS (Statistical Package for Social Sciences), Stata, SAS (Statistical Analysis System), and R — for data analytic and statistical issues in sciences, engineering, economics, and government. Emphasis on applied problem solving, measurement issues, use of computer for analysis of large-scale data. P/NP or letter grading.

170. Introduction to Time-Series Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 100C or 101B. Exploration of standard methods in time series analysis. Examples provided throughout, and students implement techniques discussed. P/NP or letter grading.

M171 Introduction to Spatial Statistics. (4) (Same as Geography M171.) Lecture, three hours; laboratory, one hour. Requisite: one course from 10, 11, 12, 13, or 14. Introduction to methods of measurement and interpretation of geographical distributions and associations. P/NP or letter grading.

C173. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100C (may be taken concurrently) or 101B. Geostatistics can be applied to many problems in other disciplines such as hydrology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forestry, oceanography, meteorology, and agriculture and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C273. P/NP or letter grading.

C180. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B, Mathematics 32B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering foundational aspects, current applications, and computational issues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C236. P/NP or letter grading.
182. Fundamentals of Scientific Writing. (2) (For-merly numbered C182.) Seminar, one hour. Development of skills in writing from diverse fields of knowledge, and perfection of student written communication. Assignments and objectives of scientific writing and practice with different forms of professional writing. Analysis of quality of writing, including control, clarity, grammar, and mechanics. P/NP or letter grading.


186. Careers in Statistics. (1 Seminar, one hour. Discussion of applications of statistics by weekly guest speakers. How statistics is applied to legal questions, economic decisions, arts, environment, and other fields, with some emphasis on career paths in statistics. P/NP or letter grading.


195. Community or Corporate Internships in Sta-tistics. (4) Tutorial, four hours. Limited to juniors/se-niors. Internship in supervised setting in community agency or business. Students meet on regular basis with internship agency and complete an oral report of their experience. May be repeated for credit. Individual con-tract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Statistics. (1 to 4) Tuto-rial, one to three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with internship agency and complete an oral report of their experience. May be repeated for credit. Individual contract re-quired. P/NP or letter grading.

Graduate Courses

200A. Applied Probability. (4) Lecture, three hours. Requisite: course 100A or Mathematics 170A. Limited to graduate statistics students. Simulation, renewal theory concepts from advanced probability and applied theory course. While data compression and transmis-sion are fundamental problems in information theory, modern methods used in analysis of spatial data. Im-plementation of various techniques using real data from diverse fields including neuroimaging, ge-ography, seismology, demography, and environmental sciences. S/U or letter grading.


M231. Probability and Machine Learning. (4) (Same as Computer Science M276A.) Lecture, three hours. Designed for graduate students. Funda-mental concepts, theories, and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, pattern recogni-tion, data mining, statistics, and computational bio-logy. Topics include Bayesian decision theory, paramet-ric and nonparametric learning, clustering, complexity (VC-dimension, MLD, AIC), PCA/ICA/CA, MDS, SVM, boosting. S/U or letter grading.

M232A. Statistical Modeling and Learning in Vi-sion and Science. (4) (Same as Computer Science M276B.) Lecture, three hours. Designed for graduate students. Funda-mental concepts, theories, and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, pattern recogni-tion, data mining, statistics, and computational bio-logy. Topics include Bayesian decision theory, paramet-ric and nonparametric learning, clustering, complexity (VC-dimension, MLD, AIC), PCA/ICA/CA, MDS, SVM, boosting. S/U or letter grading.

M232B. Statistical Computing and Inference in Vi-sion and Image Science. (4) (Same as Computer Science M266B.) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), com-puter vision. Introduction to broad range of algorithms for statistical inference and learning that could be used in vision, pattern recognition, speech, bior-robotics, and autonomous driving. Students work in small groups to learn and implement Monte Carlo computing, sequential Monte Carlo methods, belief propagation, partial differential equa-tions. S/U or letter grading.

M234. Statistics and Information Theory. (4) Lecture, three hours. Preparation: introductory probability theory course. While data compression and transmis-sion are fundamental problems in information theory, field provides insights into fundamentally statistical problems of estimation, prediction, and model selec-tion. Even new concepts of randomness emerge from this line of research. S/U or letter grading.

C236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 100B, Mathematics 32B. Designed for gradu-ate students. Introduction to statistical inference based on use of Bayes theorem, covering foundation-al aspects, current applications and computational is-sues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applica-tions vary according to interests of students. Concur-rently scheduled with course C116. S/U or letter grading.

M237. Data and Media Arts. (4) (Same as Design I Media Arts M259.) Studio, six hours. Through ex-panding reach of telecommunications networks and general advancement of data collection technologies, almost every aspect of our lives can be "rendered" in data. Contemplation of use of data in creation of me-dia art and examination of each step in process of collection, analysis, and representation. Topics include databases and data warehousing, exploratory analysis and visualization, clustering and pattern find-
methods for constructing and evaluating statistical models, including non-Bayesian and Bayesian statistical modeling approaches. Discussion of theoretical parts data and data analysis. Letter grading.

CM248. Applied Sampling. (4) (Formerly numbered C248.) (Same as Epidemiology M216.) Lecture, three hours; discussion, one hour. Designed for upper division students. Data collection, sampling designs, and methodology. Estimation, hypothesis testing, and confidence intervals. 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). Required sites: Epidemiology 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Exposure to epidemiology in introductory Epidemiology 200B and 200C and included with course C256. 

M251. Statistical Methods for Life Sciences. (4) (Same as Ecology and Evolutionary Biology M216.) Lecture, three hours. Required 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.

M254. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M271 and Biomatematics M271.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Required sites: course 100A or 200A or Bioinformatics M260A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

257. Design, Analysis, and Modeling for Embedded Sensing. (4) Lecture, three hours; discussion, one hour. Recommended preparation: knowledge of probability and analysis of data, methods and models tailored for analysis of data and design models for systems. Analysis of data produced by embedded sensing, which is product of several technological advances such as low-power computing and communication platforms, and robotic devices. S/U or letter grading.

C260. Site-Specific Topics. (4) Seminar, three hours. Tracking of invisible flows of data through greater Los Angeles metropolitan area, with focus on small number of specific sites situated prominently in both physical and virtual (data) spaces. Documenta:

M264. Statistical Analysis with Latent Variables. (4) (Same as Education M208D and Psychology M207.) 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 directed graphs. Measurement models such as confirmatory, higher-order, and structured means factory analytic models. Structural equation models, including path simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.


M245. History of Statistics. (4) (Same as History M296.) Seminar, three hours. History of statistics ranges over both discovery and development. Historical methods of mathematical ideas: philosophical, political, and social issues that were linked to the emergence and use. S/U or letter grading.


CM248. Applied Sampling. (4) (Formerly numbered C248.) (Same as Epidemiology M216.) Lecture, three hours; discussion, one hour. Designed for upper division students. Data collection, sampling designs, and methodology. Estimation, hypothesis testing, and confidence intervals. 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). Required sites: Epidemiology 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Exposure to epidemiology in introductory Epidemiology 200B and 200C and included with course C256. 

M251. Statistical Methods for Life Sciences. (4) (Same as Ecology and Evolutionary Biology M216.) Lecture, three hours. Required 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.

M254. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M271 and Biomatematics M271.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Required sites: course 100A or 200A or Bioinformatics M260A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

257. Design, Analysis, and Modeling for Embedded Sensing. (4) Lecture, three hours; discussion, one hour. Recommended preparation: knowledge of probability and analysis of data, methods and models tailored for analysis of data and design models for systems. Analysis of data produced by embedded sensing, which is product of several technological advances such as low-power computing and communication platforms, and robotic devices. S/U or letter grading.

C260. Site-Specific Topics. (4) Seminar, three hours. Tracking of invisible flows of data through greater Los Angeles metropolitan area, with focus on small number of specific sites situated prominently in both physical and virtual (data) spaces. Documenta:
294. Scientific Writing. (2) (Formerly numbered C294.) Seminar, two hours. Development of oral and written presentations of statistical data. Objectives and techniques of scientific writing and practice with different forms of professional writing. Participation in oral presentations of student work. S/U or letter grading.

296. Participating Seminar; Statistics. (1 to 2) Seminar and discussion by staff and students. S/U grading.

297SL. Service Learning and Community Learning for Statistics. (2 to 4) Seminar, three hours; fieldwork, 10 hours. To further knowledge by applying what students have learned in class to an actual service work setting under guidance of faculty mentor. Interaction with nonprofit organizations can be either on location or over the Internet. May be used for M.S. thesis; research paper/project required. S/U or letter grading.


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

485. Statistics Programming and Analysis with R. (1 to 4) Seminar, one hour. Teaching of researchers and data analysts in use of R, software environment for statistical computing and graphics, in applied settings and taught in three tracks — data to graphics in R, basic statistical analysis in R, and advanced topics in R. S/U or letter grading.

495A. Teaching College Statistics. (2) Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential departmental teaching assistants and new 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 teaching of 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.


SURGERY
David Geffen School of Medicine
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Chairs
Ronald W. Busuttil, M.D., Ph.D. (Dumont-UCLA Professor of Transplantation Surgery and William P. Longmire, Jr., Professor of Surgery), Executive Chair
Richard J. Shemin, M.D. (Robert and Kelly Day Professor of Cardiothoracic Surgery), Vice Chair, Clinical Affairs
Jonathan R. Hlaat, M.D. (Robert and Kelly Day Professor of General Surgery), Vice Chair, Surgical Education
Peter F. Lawrence, M.D. (Wiley F. Barker Endowed Professor of Vascular Surgery), Vice Chair, Clinical Practice and Strategic Planning
Jerzy W. Kupiec-Weglinski, M.D., Ph.D. (Joan S. and Ralph N. Goldwyn Professor of Immunobiology and Transplantation), Vice Chair, Basic Research
Clifford Y. Ko, M.D., M.S.H.S. (Robert and Kelly Day Professor of Surgical Outcomes), Vice Chair, Clinical Research
Matthias G. Stelzner, M.D., Vice Chair, VA Greater Los Angeles Healthcare System
Bruce E. Stabile, M.D., Vice Chair, Harbor-UCLA Jesse E. Thompson, Jr., M.D., Vice Chair, Olive View-UCLA
Bruce L. Gewertz, M.D., Chief of Surgery, Cedars-Sinai
Nand S. Datta, M.D., Chief of Surgery, Drew University

Scope and Objectives
The Department of Surgery instructs medical students during all four years of medical school. Students are expected to obtain broad knowledge of diseases treated by surgical means and to understand the pathophysiology of these conditions, the therapy that may be applied, and the anticipated results of treatment. They are also encouraged to learn about the effects of surgical illness on the patient and the patient’s family and environment.

Third-year students participate in one 12-week core clerkship in clinical surgery and are assigned to rotations at a combination of Reagan UCLA, Cedars-Sinai, Harbor-UCLA, West Los Angeles VA, Olive View-UCLA, and Santa Monica UCLA Medical Centers. Each facility has a special orientation depending on the patient population and the individual staff. During the fourth year students may elect to take additional clinical rotations with increasing responsibilities. Additional in-depth elective courses are offered in collaboration with other departments.

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

THEATER
School of Theater, Film, and Television
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(310) 825-7008
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http://www.tft.ucla.edu/programs/theater-department/

Michael J. Hackett, Ph.D., Chair

Professors
Sue-Ellen Case, Ph.D.
Susan L. Foster, Ph.D.
Gary A. Gardner, Ph.D.
Hanly L. Gelogaham, B.F.A.
Michael J. Hackett, Ph.D.
Patricia M. Harter, Ph.D.
Neil P. Jampolsky, B.F.A.
Deborah Nadoolman Landis, Ph.D. (David C. Copley Professor of Study of Costume Design)
Michael S. McLain, Ph.D.
Richard S. Rose, M.F.A.
José Luis Valenzuela, B.A.

Eddie Villarreal, M.F.A.

Professors Emeriti
Alan M. Armstrong, M.F.A.
John R. Caulobe, M.A.
Henry Goodman, Ph.D.
Robert H. Hethmon, Ph.D.
John H. Jones, M.A.
Anna Krajewska-Wiezcorek, Ph.D.
Joanne T. McMaster, M.F.A.
Mel Shapiro, M.F.A.
Carol J. Sorgenfrei, Ph.D.
William D. Ward, M.F.A.
William T. Wheelley, Ph.D.
Margaret L. Wilbur, M.F.A.

Associate Professor
Joseph M. Olivieri, M.F.A.

Assistant Professors
Myung Hee A. Cho, M.F.A.
Shelley I. Salamensky, Ph.D.

Senior Lecturers S.O.E.
David S. Rodes, Ph.D., Emeritus
Thomas J. Orth, Emeritus

Lecturers
Mark Bennett
Jonathan A. Burke
Anthony Fanning
Paul E. Girard
David Gorsheim
Daniel A. Ionazzi, Jr., M.B.A.
Laura Karpman
Jane Lanier
Monica A. Payne, M.F.A.
Mark Reis
Chantal Rodriguez
Robin Schneider
Natsuo Tomita

Adjunct Professor
F. Nicholas Gunn

Adjunct Associate Professor
Linda Kerns
Jeremy L. Mann
Ed J. Monaghan, M.F.A.
Judith E. Moreland, M.F.A.
At the undergraduate 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/programs/theater-department/.

Undergraduate Study

The Theater major is a designated capstone major. Theater capstone courses represent the highest level of student scholarship/ artistic achievement in each of the undergraduate areas. They are the culmination of all the broad educational courses and core foundational courses that have come before. Group participation in the creation and production of student projects is core to the curriculum. Capstone courses vary by area and require individual projects or performances, a major artistic contribution to a theater production, or an individual course of study resulting in a research paper. Through their capstone work, students demonstrate general knowledge and specialized skills, successfully relate their experience in a studio, production, or fieldwork setting, communicate effectively orally and in writing, and engage with a community of artists and scholars presenting theatrical work.

Theater B.A.

Capstone Major

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.

Admission

All applicants must meet the admission standards of UCLA and the departmental screening process. Applications are accepted only in November for admission to the following Fall Quarter. There are no mid-year admissions. Students must submit required supplemental materials directly to the Theater Department. All applicants must also sign up for an audition and/or interview at http://www.tft.ucla.edu/admissions/. There is a $70 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.

Preparation for the Major

Required: Theater 11, 12, 13, 14A, 14B, 14C, 50 (must be taken for 4 units total).

The Major

Required: A total of 61 upper division units, including Theater 101A, 101B, 101C, 150 (must be taken for 4 units total), and 38 upper division elective units selected from courses 101A through 199 within the elective sequences listed below.

Through some of these required courses, students are responsible for completing specific production assignments related to production activity of the theater curriculum. 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. One capstone senior project (Theater 180) is required.

The design and production electives introduce design principles and investigate the design of scenery, lighting, costumes, and sound for theater, film, and television in lower division courses. Four design and production areas of study are available at the upper division level — scenic design, costume design, lighting design, and sound design. Students select from an array of design skills courses to develop proficiency in essential areas of rendering, drafting, painting, computer-aided design, and technology. Courses in art, history, and philosophy build an understanding of the social history of visual ideas. A sequence of courses in each area of study examines design principles and practice specific to each field. One capstone senior project (Theater 180) is required.

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. One capstone directing course (Theater 163C) is required.

The history and criticism of theater and drama electives include the study of fundamental cultural, social, ethical, and political issues in the context of artistic expression enriched by historical perspective. The curriculum promotes an awareness of the theater as a global phenomenon embodying the contributions of diverse cultures and explores the verbal and visual elements of its language as revealed through the dynamics of theater production. One capstone senior project (Theater 180) is required.

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. Additional courses provide hands-on training with profes-
sional artists and a range of performing experiences from workshops to full productions. One capstone senior project (Theater 180) is required. The playwriting electives include specialized and advanced courses that prepare students to write one-act and full-length plays, books and lyrics for music theater, and scripts for the one-person show. One capstone intermediate playwriting course (Theater 131C) is required. Due to curriculum changes, students in the Theater major are no longer allowed to change their major to Film and Television at the end of their sophomore year.

Theater Minor

The Theater minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of theater as a global phenomenon for reflecting the human experience. The minor consists of a selection of lower division courses that expose students to the fundamentals of theatrical production, as well as acting, writing, and directing. Upper division courses offer more focused study of those areas, as well as theater design, history, education, and theater of non-Western cultures.

To enter the minor students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one theater course with a grade of C or better, and file an application at the Student Services Office, 103 East Melnitz Building, (310) 206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student's school or college.

Required Lower Division Courses (6 to 10 units): Theater 10 and one course from 15, 20, 28A, 28B, 28C, 30.

Required Upper Division Courses (22 to 27 units): Theater 150, one course from 102A through 102E, M103A through M103G, 105, 106, 107, 108, M109, 110, 111A, 111B, 111C, or 113, and four courses from 118A, 118B, 121, 123, 130A, 138, 139, C146A, C146B, C146C, 149, 195. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to department approval. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm. 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.) and Master of Fine Arts (M.F.A.) degrees in Theater and Candidate in Philosophy (C.Phil.) and Doctor of Philosophy (Ph.D.) degrees in Theater and Performance Studies.

Theater Lower Division Courses

1A-1B-1C. Introduction to Dance for Music Theater, (1-1-1) Studio, four hours. Designed for Theater majors. Introduction to basic music theater dance technique. Each course may be repeated once for credit. Letter grading.

2. Theater in Performance: International Theater Festival. (5) Lecture, three hours; discussion, two hours. Exploration of theater in performance as revealed in productions of guest artists or UCLA in international Theater Festival, with emphasis on collaborative role of theater artists and active role of audience. Students view selected productions, go back stage to discover how they are realized, and meet creative team. Letter grading.

4. Israel and Palestine in Literature and Media. (5) Lecture, three hours; discussion, two hours. Readings in English. Exploration of Israel and Palestine through artistic, cultural, and political modes of analysis. Examination of selected works of literature, theater, and film material by Israeli, Palestinian, and Western artists, looking beyond facile cultural clichés to deeper insights. Letter grading.

10. Introduction to Theater. (5) Lecture, three hours; discussion, one hour. Exploration of theater-in-production, with emphasis on collaborative role of theater artists and active role of audience. Understanding of and access to live theatrical events and enhancement of value of theater to society; development of critical skills through consideration of representative examples of theatrical production from Europe, America, Asia, and Africa. Letter grading.

11. Approaches to Interpretation of Theater and Performance. (5) Lecture, four hours. Introduction to basic methods of interpretation in theater and performance throughout world. Topics illustrated by faculty members and guest speakers, visits to off-campus theaters, and reading from contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical events, including interpretation of drama throughout performance. Examination of various forms of theatrical performance and styles of expression, and development of acting, voice, and movement skills. Letter grading.

13. Play Reading and Analysis. (5) Lecture, three hours. Provides basis for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater’s subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.

14A-14B-14C. Introduction to Design, (5-5-5) Lecture, three hours; studio, six hours. Exploration of visual interpretation of drama. Study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Letter grading.

15. Introduction to Directing. (4) Lecture, two hours; studio, four hours. Investigation of role of director in theatrical production and theories of play direction, with emphasis on analysis and interpretation of dramatic work and its realization in production. Letter grading.

20. Acting Fundamentals. (4) Studio, four hours. Introduction to interpretation of drama through art of actor. Development of individual insights, skills, and disciplines in presentation of dramatic material to audiances. P/NP or letter grading.


23. Musical Literacy for Singing Actors I. (2) Studio, three to four hours. Introduction to understanding musical notation, musical terminology, and basic to complex rhythm-reading and sight-singing in C major. Letter grading.


26. Alexander Techniques. (2) Studio, three hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and to expansion of movement potential. P/NP or letter grading.

27. From Vaudeville to Standup Comedy. (2) Studio, three hours. Exploration of many aspects of comedy using American vaudeville traditions, acts, and performers as historical base to experience importance of rhythm, timing, delivery, speech, and body language in all styles of comedy, to find value of improvisation/ imagination as well as innovative writing skills in all comic forms, to discover how comedy gels from so many art forms, including music/songs, dance, storytelling, clowning, magic, design, and tumbling/stunts, and to build overall confidence/ ease in comic performance skills. P/NP or letter grading.

28A-28B-28C. Acting, Voice, and Movement Workshops I. (2-2-2) Studio, three to six hours. Study of beginning acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

28D-28E-28F. Acting, Voice, and Movement Workshops II. (2-2-2) Studio, six hours. Study of beginning acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

30. Dramatic Writing. (4) Studio, three hours. Exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated once. Letter grading.


35A-35B-35C. Singing for Musical Theater I. (1-1-1) Studio, four to five hours. Exploration of musical literature, concepts of singing actors, and the language of all styles of comedy, to find value of improvisation/ imagination as well as innovative writing skills in all comic forms, to discover how comedy gels from so many art forms, including music/songs, dance, storytelling, clowning, magic, design, and tumbling/stunts, and to build overall confidence/ ease in comic performance skills. P/NP or letter grading.

37. From Vaudeville to Standup Comedy. (2) Studio, three hours. Exploration of many aspects of comedy using American vaudeville traditions, acts, and performers as historical base to experience importance of rhythm, timing, delivery, speech, and body language in all styles of comedy, to find value of improvisation/ imagination as well as innovative writing skills in all comic forms, to discover how comedy gels from so many art forms, including music/songs, dance, storytelling, clowning, magic, design, and tumbling/stunts, and to build overall confidence/ ease in comic performance skills. P/NP or letter grading.

50. Theater Production. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including stage management or member of production crew. May be repeated for maximum of 8 units. Letter grading.

72. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three hours. Exploration and laboratory experience in one or more of various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be taken for maximum of 8 units. Letter grading.
101A. Making Tradition. (5) Lecture, four hours; discussion, one hour. Exploration of traditional performances in terms of how they were produced, including training techniques, archive practices, and forms of history. Examples may include classical Greek theater, Noh, Kagura, and Quem Queritis/English medieval festival plays, San-skrit drama, Yoruba/Egunyin, Yaque di water, depending on faculty and resources available. Letter grading.

101B. Reconstructing Theatrical Past. (5) Lecture, three hours; discussion, one hour. Reconstructing theater is understood in several ways: reconstruction of performance spaces such as New Globe and of specific productions and traditions such as neoclassicism that seek to reintegrate classical traditions. Letter grading.

101C. Deconstructing Theater. (5) Lecture, three hours; discussion, one hour. Exploration of defunctive practices such as fragmentation, abstraction, and absurdism, with focus on theatrical movements, directorial adaptations, cultural translations, and new forms. Letter grading.

102A. Theater of Japan. (5) Lecture, three hours. Exploration of major theater traditions of Japan from emergence of earliest theatrical activity to present, including investigation of Noh, Bunraku, and Kabuki performance. Letter grading.

102B. Theater of Southeast Asia. (5) Lecture, three hours. Examination of representative theatrical genres from various geographical areas in Southeast Asia to illustrate importance and contribution that theater plays in society. Letter grading.


121. Acting Workshop. (2) Lecture, two hours; studio, four hours. Preparing an ensemble by selecting and shaping a group of students to perform before an audience that they have never performed for before. Letter grading.

131. Special Topics in Critical Studies. (5) Lecture, three or four hours. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit. P/NP or letter grading.

115B-115C. Acting I. (4-4-4) Studio, six hours. Study of beginning acting technique: improvisation, games, and sense memory with examination of action and objective exercises and outline of Stanislavsky system. Letter grading.

116A-116B. Acting II. (4-4-4) Studio, six hours. Development of acting skills through scene study, use of self, and personalization. Examination of characterization exercises and their application to contemporary American scenes. Letter grading.

18A. Creative Dramatics. (4) Lecture/laboratory, four hours. Studies of principles and procedures of improvisational approach to drama as done with children from nursery school to junior high. P/NP or letter grading.

18B. Advanced Creative Dramatics. (2 to 4) Lecture, four hours; other, to be arranged. Practical application of creative drama process. Exploration of interrelationships of arts to traditional disciplines of learning. May be repeated once for credit. P/NP or letter grading.

18C. Interactive Theater. (4) Laboratory, four hours. Active, problem-solving process of theater exercises and games designed to examine racial stereotypes, sexual harassment, gender discrimination, and other issues that diverge campus community, as well as issues that divide campus from Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to intellectual development, exercises and games nurture skills and attitudes useful in facilitating discussions among actors and audience participants. Use of techniques of sensory awareness, movement, pantomime, improvisation, and characterization. Letter grading.

18D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites: courses 118A, 118B. Development of K-12 teaching materials to integrate theater with specific core curricula. Collaboration with classroom teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social sciences are possible curricular areas. Development of evaluation tools to measure effectiveness of incorporating theater materials into curricula. Weekly meetings to discuss teaching strategies and preparation of written lesson plans. California Teaching Content Standards, objectives, motivation, detailed implementation of lesson plan, and ideas for assessment. Classroom work culminates in thoroughly documented final project evaluated by ArtsBridge student, classroom teacher, and UCLA faculty members. P/NP or letter grading.


19B. Theater for Child Audience: Performance. (4) Lecture, two hours; studio, four hours. Preparations: audition prior to first class meeting. Designed to provide opportunity for students to work as ensemble, creating through improvisation theater presentation for young audience. Emphasis on testing theoretical concepts through ensemble work, rehearsals, and performances. Letter grading. 242A-242B. Acting and Performance in Film. (5-5-5) Lecture, six hours. Exploration of acting and performance in film. Through screenings of performance-driven films, class discussion, and acting exercises, examination of methods, styles, and performances of some of world's most highly regarded actors and their work. Letter grading.

121. Acting Workshop. (2) Studio, to be arranged. Requisites: course 20. Courses 160, 163A, 163B, and 163C may be taken concurrently. Workshop that pro-
vides students with opportunity to rehearse, perform, and criticize scenes. May be repeated once for credit. P/NP or letter grading.


123. Intermediate Acting for Stage. (4) Lecture/studio, four to six hours. Studio, two hours. Study and practice of acting through perfected techniques and application of those techniques to acting problems. P/NP or letter grading.

124A-124B-124C. Voice and Speech II. (1-1-1) Studio, two to four hours. Development of voice and speech techniques for stage. Letter grading.


125A-125B-125C. Movement and Combat I. (1-1-1) Studio, three to four hours. Physical awareness for actors, concentrating on warming up body, relaxation, control, statues, gymnastics, martial arts, and use of weapons. Letter grading.

125D-125E-125F. Movement and Combat III. (1-1-1) Studio, three to four hours. Physical awareness for actors, concentrating on warming up body, relaxation, control, statues, gymnastics, martial arts, and use of weapons. Letter grading.


128A-128B-128C. Acting, Voice, and Movement Workshops II. (2-2-2) Studio, four to six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

128D-128E-128F. Acting, Voice, and Movement Workshops II. (2-2-2) Studio, six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (as Film and Television CM129.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelationships among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.

130A. Fundamentals of Playwriting I. (5) Lecture, three hours; discussion, one hour. Study and analysis of dramatic structure, characterization, and narrative leading to guided completion and critique of student-written one-act play. Letter grading.

130B. Fundamentals of Playwriting II. (4) Lecture, three hours plus conference. Requisite: course 130A. Study in original material for theater, its preparation and development. Designed to give further insight into critical aspects of creation and production of short and full-length plays and guidance in completion of one-act and full-length plays. May be repeated twice for credit. P/NP or letter grading.

130C. Writing for American Musical Theater. (4) Lecture/laboratory, three hours. Study of practice and techniques used in writing libretto for musical theater: opening numbers, romance, subplots, and comedy. May be repeated once for credit. P/NP or letter grading.

131A-131B-131C. Intermediate Playwriting. (5-5-5) Lecture, three hours. Letter grading. 131A. Play Strategies and Styles. Requisite: course 30 or 130A. Exploration of plot and writing of one-act play. 131B. One-Act Play. Requisite: course 131A. Preparation and writing of one-act play and/or outlining of full-length play. May be repeated twice for credit with consent of instructor. 131C. Full-Length Play. Requisites: courses 131A, 131B. Preparation and writing of full-length play. May be repeated twice for credit with consent of instructor.


C133A-C133B-C133C. Script Development Workshops. (4 to 8 each) Lecture, three hours; studio, four to 24 hours. Guided process of script development, with emphasis on communication, artistic growth, and professional process. Each course may be taken for maximum of 8 units. Concurrently scheduled with courses C133A-C133B-C133C. Letter grading.


136. Advanced Acting for Stage. (4) Studio, four hours. Requisite: course 123. Study and practice of art of acting through progression to more advanced acting problems. May be repeated twice for credit. Consecutive 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 Stage. (4-4-4) Studio, six hours. Requisite: course 123. Technique of characterization and performance in advanced and complex acting styles. Each course may be repeated once for credit. P/NP or letter grading.

138. Special Problems in Performance Techniques. (4) Studio, four hours. Study of complex problems in voice, movement, and acting. May be repeated twice for credit. P/NP or letter grading.

139. Play Reading and Analysis. (5) Lecture, three hours. Investigation of dramatic texts, with focus on play structure, plot, character, dialog, ideas, and various other elements essential to effective theatrical interpretation and realization. Letter grading.

C140A. Introduction to Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language. May be repeated once for credit. Concurrently scheduled with course C440A. Letter grading.

C140B. Advanced Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440B. Letter grading.

C140C. Advanced Projects in Programming for Entertainment Design. Exploration of three advanced projects in object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440C. Letter grading.

C144A-C144B-C144C. Advanced Sound Design. (4-4-4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C444A-C444B-C444C. Letter grading.

C144A. Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with re- creation of atmosphere, processing, automation, and reproduction of dialogue, effects, and music tracks for theater sound design. May be repeated once for credit. Letter grading.

C144B. Lecture, four hours; laboratory, four hours. Advanced study and practice in recording of theater sound designs, with emphasis on analysis of script and score, conceptual development of design, and multitrack recording techniques to realize design. May be repeated once for credit. Letter grading.

C144C. Lecture, four hours; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement in theater. Study of creation of sound effects, control of MIDI data, and design techniques for music theater. May be repeated once for credit. Letter grading.

145. Costume Design for Theater. (4) Lecture/laboratory, four hours. Design of costumes for theatrical presentations. Study of use of silhouette, fabrics, color, and ornamentation as related to theatrical characterizations. May be repeated once for credit. P/NP or letter grading.

C146A-C146B-C146C. Art and Process of Entertainment Design. (4-4-4) To 8 Lecture. Conceptualization, design, and prototyping of interactive theatrical events. Each course may be repeated once for credit. Concurrently scheduled with courses C446A-C446B-C446C. Letter grading.

C146A. Lecture, three hours. Exploration of original forms of media-rich entertainment experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. May be repeated once for credit. Letter grading.

C146B. Lecture, three hours. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit. Letter grading.

C146C. (4 to 8) Lecture, three to six hours. Prototype development; conceptual refinement and technologi- cal realization of prototype in preparation for creation of elaborate proposals containing storyboards, budgets, and models or may involve production of short performances demonstrating entertainment potential of concepts or prototypes. May be repeated once for credit. Letter grading.

147A. Drafting. (4) Studio, four hours. Development of visual communication skills through drafting. Explor- ation of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

147B. Drawing Scenery. (4) Studio, four hours. Introductory course in basic skills necessary for drawing, by hand, scenic design for theater. Letter grading.

148. Special Courses in Design and Technical Theater. (4) Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

149. Introduction to Design. (5) Lecture, three hours. Exploration of interpretation of drama through design, including study of techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Concentration of attention on realization of designs in production. Letter grading.

150. Theater Production and Performance. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including performance in project or production, stage man-
agament, member of crew, or assignment as designer or assistant on production. May be repeated for maximum of 8 units. Letter grading.

C151A. Scenic Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Imaginative and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C451A. Letter grading.


C151C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multicamera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C451C. Letter grading.


C153C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Study of current professional costume design and wardrobe practices in film and television, including effect of differing media on design choices. May be repeated once for credit. Concurrently scheduled with course C453C. Letter grading.


C154B. Sound Design for Theater. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C454B. Letter grading.

C154C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C454C. Letter grading.


C155A. Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-point perspective, form light, shadow, and value. Letter grading.

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, fabrics, and other surfaces. Letter grading.

C156C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as means of communication for scenic and costume designers. Letter grading.

C156D. Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study of model for representation of scenic designs from initial working prototypes to finished carved models, with study of materials and techniques for execution of model. Letter grading.

C157E. Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Letter grading.

C157F. 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.

C157G. Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scenic painting techniques and materials and their realization of color design and elevations. May be repeated once for credit. Letter grading.

C157H. Selected Topics in Graphic Representation of Design. (2) Studio, six hours. Group study of selected subjects in techniques for interpretation of design for theater. May be repeated once for credit. Letter grading.

C156A. Introduction to Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investigation of drawing and editing techniques, drawing floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C456A. Letter grading.


C157A-C157C. Costume Construction Techniques. (2-2-2) Studio, four hours. Study of theory and application of drafting, pattern making, fitting, and construction techniques for period costumes and undergarments to achieve authentically-appearing costumes using contemporary methods. Each course may be repeated once for credit. Concurrently scheduled with courses C457A-C457B-C457C. P/NP or letter grading.


160. Fundamentals of Play Direction. (6) 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. P/ NP or letter grading.


163A. (4) Lecture/studio, four hours. Requisite: course 15. Intensive development of personal directing skills and process, including text analysis and exploration of craft fundamentals as basis for director/actor communication and effective staging. Students direct scenes from plays under laboratory conditions. Letter grading.

163B. (4) Lecture/studio, four hours. Requisite: course 15. Further development of craft elements of directorial method, with additional emphasis on psychological aspects of director/actor communication. Students direct scenes under laboratory conditions in alternate stage configurations. Letter grading.


163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of stage directing techniques in production of short play or...
170. Design and Production Project. (4) Labo-
ratory, eight hours. Requisites: courses 14A, 14B, 14C. Exper-
ience as stage manager or designer, including participation in pre-
paration and realization of scenic, lighting, costume, or sound des-
gn. May be repeated once for credit. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) La-
boratory, to be arranged. Creative participation as actor or 
stage manager or designer, including preparation and realization of de-
partmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

171B. Advanced Theater Laboratory. (1 to 4) La-
boratory, to be arranged. Creative participation in real-
ization of production elements related to public pre-
sentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

172. Production Practice in Theater, Film, Video, 
and Digital Media. (1 to 8) Studio, three to eight 
hours. Exploration and laboratory experience in one or 
more aspects of production and postpro-
duction practice for entertainment media, including the-
cluding filming, editing, video, digital media. May be 
repeated for maximum of 24 units. Letter grading.

173A. Design Assignment: Designer. (2) Studio, six 
hours. Requisites: courses 14A, 14B, 14C. Labora-
yory experience as designer, including pre-
paration and realization of scenic, lighting, costume, or sound designs. May be 
repeated. Letter grading.

173B. Production Design Assignment: Designer. (2) Studio, six 
hours. Requisites: courses 14A, 14B, 14C. Profes-
sional duties of stage manager. Problems of unions, 
professional auditions, organization, scheduling, out-
of-town openings, Broadway openings, and responsi-
bilities of lengthy run. Letter grading.

174B. Project in Stage Management. (3) Studio, 
nine hours. Requisite: course 174A. Laboratory ex-
prience in professional duties of assistant stage man-
ger, including preparing and organizing and speak-
erg on reel of production, and or stage man-
ger in production, rehearsal, and performance phases of productions. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 
douze hours. Requisite: course 174A. Laboratory experi-
ence in professional duties of stage manager, includ-
ing participation as stage manager in production, rehearsal, and performance phases of productions. May be repeated once for credit. Letter grading.

174A. Stage Managing Techniques. (2) Studio, six 
hours. Requisites: courses 14A, 14B, 14C. Profes-
sional duties of stage manager. Problems of unions, 
professional auditions, organization, scheduling, out-
of-town openings, Broadway openings, and responsi-
bilities of lengthy run. Letter grading.

175A-175C-175D. Summer Theater Workshops. (4 
or 8 each) Laboratory, 12 to 24 hours. Participation in various 
aspects of theater production and perfor-
mation. Offered in summer only. Letter grading.

175B. Summer Theater Workshop. (1 to 4) Labora-
tory, three hours. Participation in various aspects of theater production and performance. Offered in 
summer only. Letter grading.

177. Computer-Assisted Design Techniques. (4) 
Studio, six hours. Hands-on exploration of use of 
computers for design of scenery and lighting in the-
ater, and presentation and evaluation of designs. Three dif-
cerent production styles to which performers may 
need to adjust are (1) preproduction rehearsals with 
director, (2) single-camera experience, and (3) multi-
ple-camera experience. May be repeated twice for credit. Letter grading.

178. Senior Project. (4) Lecture or studio, three 
hours. Requisites: courses 101A, 101B, 101C. Prepa-
ration of conceptual or creative project to provide cul-
mulative experience of creative decision-making and pro-
cess of research work. May be repeated twice for credit. Letter 
grading.

181. Career Development for Actors. (2) Lecture, 
three hours; field trip, three hours. Limited to seniors. 
Study of business practices, career entry, and de-
velopment for actors. P/NP or letter grading.

185A. Role of Producer in Professional Theater. (2) 
Lecture, three hours. Study of structure governing economic and artistic decision-making processes in profes-
sional theater of America. Concurrently sched-
uled with course C285A. P/NP or letter grading.

185B. Role of Manager in Educational and Community 
Theater. (2) Lecture, three hours. Study of 
artistic, social, and economic criteria in administra-
tion of educational and community theater. Concur-
rently scheduled with course C285B. P/NP or letter grading.

186. Art Alive: Art and Improvisation in Muse-
ums. (4) (Same as Honors Collegium M116.) Semi-
nar, four hours. Offered in collaboration with Los An-
geles County Museum of Art (LACMA). Interpretation of 
art in collection through acting, dialogues, move-
ment, and music. Research into history and art histo-
ry and production of creative performance piece re-
quited. P/NP or letter grading.

202S. Seminar: East Asian Theater. (4) Seminar, 
three hours. Designed for graduate students. Select-
ted topics in theater forms of East Asia, including dra-
matic literature, costume, theater spaces, and critical writings. May be repeated twice for credit. S/U or let-
ter grading.

205A-205B-205C. Background of Theatrical Art. (5-
5-5) Seminar, three hours. Designed for graduate students. Select-
ted topics in the development of various spe-
cialties. Students meet on regular basis with instructor and provide periodic reports of their experience. May 
be taken for maximum of 8 units. Individual contract with 
supervising faculty member required. Letter grading.

206. Themes in World Theater and Drama. (5) 
Seminar, three hours. Designed for graduate students. 
Selected topics in world theater and drama study that 
explores significant issues and ethical considerations of modern world. May be repeated four times for cre-
it. S/U or letter grading.

207. Theater Ethics and Issues. (5) Seminar, four 
hours. Designed for graduate students. Investigation of 
theory and practice of dramaturgy. May be repeated four 
times for credit. S/U or letter grading.

207A-207B. Dramaturgy I, II. (4-4) Lecture, three 
hours. Designed for graduate students. Study of the 
forms of South Asia, including dramatic literature, costume, 
and religious experience, and revitalization of myth and rit-
ual. May be repeated twice for credit. S/U or letter grading.

208A-208B. Dramaturgy I, II. (4-4) Lecture, three 
hours; laboratory, one hour. Designed for graduate students. 
Selected topics in the development of theatrical produc-
tion and dramatic writing in American theater. May be 
repeated twice for credit. S/U or letter grading.

208C. Practicum in Dramaturgy. (2 to 12) Labora-
tory, to be arranged. Requisites: courses 208A, 208B. 
Demonstration of competence in practice of dramatur-
gy through completion of approved surgical as-
ignment. May be taken for maximum of 12 units. Let-
ter grading.
209. Theater Authors. (5) Seminar, three hours. Designed for graduate students. Investigation of work of one major playwright or group of playwrights in world theater, with special emphasis on relationship to time in which work was generated. May be repeated four times for credit. S/U or letter grading.

210. Topics in World Theater and Drama. (5) Seminar, three hours. Lecture, one hour. Overview of selected topics in world theater, drama, production, and architecture. May be repeated four times for credit. S/U or letter grading.

216A. Approaches to Representation. (6) Lecture, three hours; laboratory, one hour. Overview of strategies of representation from classical aesthetic theories to postmodern deconstructions of them. May be repeated once for credit. Letter grading.

216B. Approaches to History. (5) Lecture, three hours; laboratory, one hour. Overview of key methodologies, theories, and debates in historiography of theater and performance linked to plays and performances appropriate to approach. Letter grading.

216C. Approaches to Identification. (5) Lecture, three hours; laboratory, one hour. Overview of key theories, methods, debates, and performance texts of identifiable structure between audience member or scholar and theatrical or performance object. Letter grading.

220. Graduate Forum. (1 to 2) Seminar, one to two hours. Limited to graduate theater students. Presentation and discussion of issues informing and affecting contemporary theater. May be repeated four times for credit. S/U grading.

221. Introduction to Performance Studies. (5) Seminar, three hours. Investigation of performance as sustained practice in traditional disciplines such as theater, music, dance and as lens to focusing upon human experience in fields such as philosophy, literature, cultural anthropology, linguistics, education, and law. Emphasis on establishing interdisciplinary dialogues among fields. Lecture-grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Film and Television CM229.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions to collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professionals. May be repeated twice by same student concurrently scheduled with course M129. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theater. (4 to 8 each) Lecture, three hours; studio, two hours. Designed for graduate students. Letter grading.

230A. One-Art Play. Analysis of strategy and dramatic structure of selected contemporary short plays leading to guided completion and critique of student-written one-act plays. 230B. Full-Length Play. Analysis of strategy and dramatic structure of selected contemporary full-length plays leading to guided completion and critique of student-written full-length play. 230C. Exploration of structure, story, and thematic demands of selected contemporary American plays leading to guided completion and critique of student work.

231. Special Topics in Playwriting. (4) Lecture, three hours. Analysis and practice of various aspects of playwriting. Variable content selected from topics such as comedy writing, docudrama, experimental theater, writing for alternative audiences, or children’s theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Designed for writing for alternative audiences or workshops. Critical and constructive analysis of dramatic techniques as employed by playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit. S/U or letter grading.


242. Introduction to Design in Production. (4) Lecture or studio, four hours. Introduction to process of design for entertainment, collaborative role of designer, and rear aspects of collaboration. May be repeated once for credit. Letter grading.

243A-243B-243C. Scenic Design. (4-4-4) Studio, four hours. Advanced study and practice in scenic design for theater. Imagination as impetus for design, theories, methods, debates, and performance texts of identificatory structure between audience member or scholar and theatrical or performance object. Letter grading.

244A-244B. Advanced Theater Production. (2 to 8 each) Studio, 12 to 24 hours. Designed for graduate students. Creative participation in preparation and presentation of theatrical production. Each course may be taken for maximum of 8 units. Letter grading.

245A. Production Management. (4) Lecture, three hours. Study in production management for theater. Examination of professional duties of production manager, including preprocessing, rehearsal, and performance management. Letter grading.

245B. Production Management. (4) Lecture, three hours. Study in production management for theater, with focus on planning process of professional production manager in seasonal and repertory environment. Problems of resource allocation, unions, organizational structure, scheduling, and budgeting while maintaining creative and collaborative environment. Letter grading.

245C. Projects in Production Management. (4) Lecture/laboratory, three hours. Requisite: course 245B. Three hours each of professional duties of production manager, including participation as production manager in preprocessing, rehearsal, and performance phases of productions. Problems of resource management, unions, organizational structure, scheduling, and budgeting. Letter grading.

246A-246B-246C. History of Costume. (4-4-4) Lecture/studio, four hours. Designed for graduate students. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

246D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

247. Collaborative Project in Design and Production. (3 to 4) Studio, five hours. Designed for graduate students. Collaborative project in design, including analysis, conceptual development, and preparation of scenic, lighting, costume, or sound designs. May be repeated once for credit. Letter grading.

250. Directing I. (4) Lecture, four hours; studio, 24 hours. Designed for graduate students. Development of directorial skills of analysis, planning, staging, and criticism through medium of written preparations and directing of scenes. Letter grading.

251. Directing Post-Realist Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Development of directorial skills in production of short plays or scenes. May be repeated for maximum of 20 units. Letter grading.

C263D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisite: 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.

265. Modern Theories of Production. (4) Lecture, four hours. Examination of modern theories of production from emergence of director in 19th century to present. Investigation of different responses to problems of creating vital theatrical event in context of ongoing evolution of theater as art form. Examination of contribution of significant directors and movements; relation between theater and other forms of representation. Letter grading.

266. Theatrical Conceptualization. (4) Lecture, four hours. Examination of process of conceptualization in dramatic production; centrality of theatrical conceptualization in interpretation of dramatic text; exploration of range of possibilities inherent in different theatrical spaces and options in design components. Consideration of visual arts and music as sources of stimulus for theatrical conceptualization, with focus on collaboration and aspect of theatrical production. Letter grading.

272. Production Practice in Theater, Film, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

C285A. Role of Producer in Professional Theater. (2) Lecture, three hours. Designed for graduate students. Study of structure governing economic and artistic decision-making processes in professional theater of America. Concurrently scheduled with course C185A. S/U or letter grading.

C285B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. Designed for graduate students. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C185B. S/U or letter grading.

299A-299B. Special Studies in Theater Arts. (2 or 4 each) Lecture/discussion, two or four hours. Designed for graduate students. Examination of problems in theater arts, organized on topical basis. Each course may be repeated once for credit. S/U or letter grading.

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

420A-420B-420C. Advanced Acting I. (4 to 8-4-4) Studio, six to 18 hours. Letter grading.

420A. (4 to 8) Studio, six to 18 hours. Development of individualized acting technique, beginning with an understanding of the dramatization of one’s personal history. Scene work follows, with emphasis on off-stage preparations, improvisations capturing circumstances, role of character and intentions of scene. Letter grading.

420B. (4) Studio, six to 18 hours. Scene work, usually from 20 to 30 minutes in length. Continuation of work on off-stage preparation, with further development of how actor goes about doing research and fieldwork on characters being played.

420C. (4) Studio, six to 18 hours. Development of external technique through comedy and of skits, improvisation, physical humor, delivery of lines, rhythm, timing, and public cabaret. Fusion of internal; use of action and objective with external. Letter grading.

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242. Advanced Acting for Theater, Film, and Television. (8 to 12) Studio/laboratory, eight to 12 hours. Intensive performance experience. May be repeated for maximum of 24 units. Letter grading.


244A-424B-424C. Advanced Voice and Speech I. (2 or 4 each) Studio/laboratory, three to six hours. Development of voice and speech techniques for stage, including those of relaxation, breathing, reso- nance, 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.

244D-424E-424F. Advanced Voice and Speech II. (2 or 4 each) Studio/laboratory, three to six hours. Advanced voice problems. Extension of first-year work, with increased demands on voice. Range, resonance, and breathing capacity extension. Articulation and phonetic alphabet. Text work in classical verse. Letter grading.

244G-424H-424I. Advanced Voice and Speech III. (2 or 4 each) Studio, three to six hours. Extension of second-year work, with increased demands on voice/speech, range, resonance, and breathing capacity exten- sion. Application of ear training and International Phonetic Alphabet to creation of dialect and accents, as well as systematic approach to creating dialectal charts. Letter grading.

245A-425B-425C. Advanced Movement I. (2 or 4 each) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Develop- ment of personal idiom, range, expression, and breathing capacity. Idiom training; three to six hours. Prototype created for individual actors to their maximum potential. Experience in techniques and discovery of origins of voice, motion, and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.

245G-425H-425I. Advanced Movement III. (2 or 4 each) Studio, three to six hours. Advanced physical training for actors in one or more movement, dance, or combat discipline: capoeira, martial arts, ballet, ballroom, period dance, circus techniques. Letter grading.

246A-426B-426C. Alexander Techniques. (2 or 4 each) Studio, three to six hours. Study and practice in Alexander techniques as method of developing balance, and development of body and mind; exploration of use of rhythm to expand movement poten- tial of actors and relevant use of visual arts and ani- mal study. Further work on design and expansion of movement potential. Letter grading.


420A-430B-430C. Advanced Studies in Playwrit- ing. (4 to 8 each) Lecture, three hours. Limited to M.F.A. playwriting program students. Guided comple- tion of full-length scripts for stage. S/U or letter grad- ing.

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’s art. Variable content selected from topics such as comedy writing, docudrama, writing for alter- native audiences, adaptation from stage to screen, children’s theater, or improvisational techniques. May be repeated twice for credit. S/U or letter grading.


C433A-C433B-C433C. Script Development Work- shops. (4 to 8 each) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided development of script, with emphasis on communication, artistic growth, and professional process. Each course may be taken for maximum of 8 units. Concurrently scheduled with courses C133A- C133B-C133C. Letter grading.


C440A. Introduction to Programming for Enter- tainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX- MSP programming language. May be repeated once for credit. Concurrently scheduled with course C140A. Letter grading.

C440B. Advanced Programming for Entertain- ment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX- MSP programming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140B. Letter grading.

C440C. Advanced Projects in Programming for Entertainment Design. (4) Studio, three hours. Advanced projects using object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140C. Letter grading.

441A-441B-441C. Lighting Design. (4-4-4) Lecture/ studio, four hours. Letter grading.

441A. (4) Lecture/studio, four hours. Study and prac- tice in lighting design, analyzing textual and charac- ter analysis from lighting designer’s perspective, conceptual development with director, effect of light on dynamics of staging, use of color in light, and relation- ship of lighting designer to actor. May be repeated once for credit. Letter grading.

441B. (4) Lecture/studio, four hours. Study of use of light and color to define space, effect of light on scen- eary and costumes, lighting for arena/thrust theaters, multi-scenic productions, lighting patterns, and moving scenery. May be repeated once for credit. Letter grad- ing.

441C. (4) Lecture/studio, four hours. Investigation of lighting design in production, musical theater, opera, touring, and recording situations. Study of analysis of script and score for lighting designer. May be repeat- ed once for credit. Letter grading.

441D. Scenic Projection and Media Techniques. (4) Lecture/laboratory, four hours. Designed for gradu- ate students. Advanced study and practice in scenic projection and media techniques, with emphasis on analysis, design, and execution of theatrical projection and photographic technique for stage. S/U or letter grading.

C442A-442B-442C. Costume Design. (4-4-4) Lecture/studio, four hours. Advanced study and practice in costume design for theater. Imagination as impetus for conceptual and technical design. Letter grading.

443. Problems in Design. (2 or 4) Lecture/laboratory, four hours (additional hours). Study and practice in design techniques for theater. May be repeated for maximum of 12 units. S/U or letter grading.

C444A-C444B-C444C. Advanced Sound Design. (4-4-4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C144A-C144B-C144C. Letter grading.

C444A. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to perfor- mance environments, techniques associated with rec- ording, mixing, processing, automation, and repro- duction of dialogue, effects, and music tracks for the- ater sound design. May be repeated once for credit. Letter grading.

C444B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and re- cording of theater sound designs, with emphasis on analysis of script and sound development of design, and multitrack recording techniques to real- ize design. May be repeated once for credit. Letter grading.

C444C. (4) Lecture, four hours; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack record- ings; preparation of sound tracks and sound reinforce- ment in theater. Study of creation of sound effects, control of MIDI data, and design for music tracks. Letter grading. May be repeated once for credit. Letter grading.

445A-445B. Production Design for Film, Televi- sion, and Entertainment Media. (4-4-4) Lecture/stu- dio, four hours. Study and practice in design of scene environment for film, video, and entertainment media, including effect of differing media on design choices, role of production designers and art directors, and de- sign for single- and multiple-camera production. Each course may be repeated once for credit. Letter grading.


C446A. (4) Lecture, three hours. Exploration of origi- nal forms of media-rich entertainment experience through lectures, presentations, and seminar partici- pation. Students form collaborative teams to conceive and propose interactive entertainment events. May be repeated once for credit. Letter grading.

C446B. (4) Lecture, three hours. Prototype develop- ment: two to five proposals to be more completely de- fined and developed. Students form collaborative teams for further conceptualization of their project proposals. May be repeated once for credit. Letter grading.

C446C. (4 to 6) Lecture, three to six hours. Prototype development; conceptual refinement and technologi- cal realization of prototypes, that may entail creation of elaborate proposals containing storyboards, bud- get, and models or may involve production of short performances demonstrating entertainment potential of concepts or prototypes. May be repeated once for credit. Letter grading.

448A-448B. Costume Design for Film, Television, and Entertainment Media. (4-4) Lecture/studio, four hours. Study and practice in design of costumes for live and virtual characters in film, television, and en-
tertainment media, including effect of differing media on design choices. Each course may be repeated once for credit. Letter grading.

449. Design Thesis Project. (4) Lecture/studio, four hours. Series of group design projects that serve as comprehensive examination for M.F.A. degree in entertainment design. Review and evaluation of projects by design faculty members from all areas of curricula. Letter grading.


C451B. Scenic Design for Theater. (4) Lecture/studio, four hours. Study of scenic design for prosenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated once for credit. Concurrently scheduled with course C151A. Letter grading.

C452A. Lighting Design. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multicamera lighting, and set decoration. May be repeated once for credit. Concurrently scheduled with course C151C. Letter grading.

C452B. Lighting Design for Theater. (4) Lecture/studio, four hours. Study of lighting design for prosenium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


C453A. Costume Design. (4) Lecture/studio, four hours. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C153A. Letter grading.

C453B. Costume Design for Theater. (4) Lecture/studio, four hours. Study of costume design for prosenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated once for credit. Concurrently scheduled with course C153B. Letter grading.

C453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of current professional costume design and wardrobe practices in film and television, including effect of differing media on design choices. May be repeated once for credit. Concurrently scheduled with course C153C. Letter grading.

C454. Sound Design. (4) Lecture/studio, four hours. Introduction to sound and audio in acoustic, audio, and digital domain. Study and practice of techniques for recording, editing, and creating soundscapes. May be repeated once for credit. Concurrently scheduled with course C154A. Letter grading.

C455. Sound Design for Theater. (4) Lecture/studio, four hours. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Study of use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C154B. Letter grading.

C454C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154C. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Letter grading.


C455A. Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study of colored pencil rendering, line drawing, and perspective. May be repeated once for credit. Concurrently scheduled with courses C157A-C157B-C157C. S/U or letter grading.


C460A-460AW. Contemporary Issues in Direction. (1-1-1) Discussion, three hours. Designed for graduate students. Discussion of role of director in contemporary professional practice. Review discussion and critique of directing projects. Each course may be repeated for maximum of 4 units. Letter grading.


463. Production Project in Direction for Stage (8 or 12 units). Studio, 24 hours. Designed for graduate students. Creative participation as director in conceptualization and preparation of dramatic work. Letter grading.
596A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596B. Directed Individual Studies: Writing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596C. Directed Individual Studies: Directing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596D. Directed Individual Studies: Design. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

598. Advanced Projects in Design and Production. (4) Lecture/studio, four hours. Study and practice in preparation and execution of designs for theater, film, video, and related entertainment forms. As contributing artist/member of design team, creative responsibilities include designer, technical supervisor, or production manager. May be repeated for maximum of 16 units. Letter grading.

598A-495B-495C. Practicum and Practice in Theater. (2-2-2) Seminar, to be arranged; discussion, two hours. Limited to Ph.D. students. Study and practice of teaching theater at university level. Orientation and preparation of graduate (Ph.D.) students who have responsibility to assist in teaching undergraduate courses in department. Discussion of problems common to teaching experience. Letter grading.


599E. Directed Individual Studies: Acting. (2 to 12) Tutorial, to be arranged. Full- or part-time at studio or on 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 scheduled. S/U or letter grading.

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

596A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596B. Directed Individual Studies: Writing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596C. Directed Individual Studies: Directing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596D. Directed Individual Studies: Design. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596E. Directed Individual Studies: Acting. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596F. Directed Individual Studies: Production. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

597. Preparation for Ph.D. Qualifying Examinations in Theater Arts. (2 to 6) Tutorial, to be arranged. May be repeated for maximum of 12 units. S/U grading.


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 an undergraduate minor in Urban and Regional Studies, a two-year Master of Urban and Regional Planning (M.U.R.P.) degree, and a Ph.D. degree. Concurrent degree programs allow students to combine study for a M.U.R.P. in Urban Planning with work toward an M.B.A. in the Anderson Graduate School of Management, a J.D. in the School of Law, an M.Arch. I in the Department of Architecture and Urban Design, an M.A. in Latin American Studies, or an M.P.H. in the Fielding School of Public Health.

The department takes pride in its collegial atmosphere. It features a lively mix of students from diverse academic backgrounds, drawn from many foreign countries and from every avenue of American life. It includes many members of racial and ethnic minority groups, and more than half the students are women. Student organizations provide an interesting program of extracurricular activities.

Undergraduate Study

Urban and Regional Studies Minor

The scale, diversity, balkanized governance, and natural environment of Southern California all contribute to making it an extraordinary natural laboratory for learning about urban and regional issues, whether the focus is on immigration, employment, the built environment, transportation, poverty, natural resources, or a host of other challenges. The Urban and Regional Studies minor offers undergraduate students a means to address some of these issues from an interdisciplinary perspective, giving a balanced mixture of theory, practice, and service learning courses.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 90 or more units, and complete either Urban Planning 120 or 121 with a grade of C or better. An introductory course in geography, political science, or sociology is recommended. For further information, contact the program director/counselor at (310) 206-8966.

Required Courses (28 units): (1) Urban Planning 120 or 121 with a grade of C or better; (2) five elective courses selected as follows: (a) at least three courses from Public Policy 10A, 104, C115, M120, C147, Urban Planning 120 (unless taken under item 1), 121 (unless taken under item 1), 130, C133, 141, M150, M160, M165, M175, C184 and (b) up to two courses from Anthropology 167, Chicana and Chicano Studies 181, Geography 150, History 145A, 145B, Management 175, Political Science 143B, Sociology 158 (students may petition to include a Luskin School of Public Affairs course not listed above to fulfill an elective requirement); (3) capstone project that may be satisfied by one of the following: (a) Urban Planning 185SL — service learning project or (b) Urban Planning 199 or a 199 in the College of Letters
and Science with a faculty mentor affiliated with this minor — individual research project.

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

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees


Urban Planning

Upper Division Courses

120. Introduction to Cities and Planning. (4) Lecture, three hours. Survey of urban history and evolution in U.S., urban social theory, current growth trends, system of cities, urban economy and economic restructuring, traditional and alternative location theories, urban transportation, and residential location and segregation. P/NP or letter grading.

121. Urban Policy and Planning. (4) Lecture, three hours. Examination of current urban planning and policy issues and debates, such as normative theories of good urban form, metropolitan organization and governance, economic development and growth management, edge cities, spatial mismatch hypothesis, urban poverty, racial/ethnic inequality, gender and urban structure, sustainability, and future of cities. P/NP or letter grading.

M122. Policy, Planning, and Community. (4) (Same as Asian American Studies M108.) 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. Letter grading.

129. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of particular planning/policy subfield (e.g., economic development, environmental planning, housing and community development, international planning and development, land use, or urban design) in some depth. Specific topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or letter grading.

130. Fundamentals of Urban and Regional Economics. (4) Lecture, three hours. Preparation: one introduction to microeconomics course. Most U.S. population lives and works in urbanized areas, and world's population is becoming more urbanized with each passing decade. National, state, and local governments are engaged in managing, planning, policy-making, and governance in urban context. Ultimate efficacy of those public activities depend on understanding of economic forces acting on urban areas. Basic concepts related to location choice, agglomeration effects, economies of scale, and specialization by cities and transportation. P/NP or letter grading.

133. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban political economy and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements. Concurrently scheduled with course C235. P/NP or letter grading.

CM137. Southern California Regional Economy. (4) (Same as Labor and Workplace Studies M180.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Concurrently scheduled with course C235. P/NP or letter grading.

M140. Issues in Latina/Latino Poverty. (4) (Same as Chicana and Chicano Studies M121 and Labor and Workplace Studies M121.) Lecture, four hours. Examination of nature and extent of urban and rural poverty confronting population in U.S. Special emphasis on antipoverty policies of government and nonprofit organizations and social planning and economic development strategies. Attention also to literature on underclass. Letter grading.

141. Planning for Minority Communities. (4) Lecture, three hours. Introduction to inner-city policy issues on three separate levels: (1) each student develops comprehensive inner-city urban program using materials from Alternatives Inner-City Future Exercise, (2) each student is expected to identify value assumptions and theories of social justice implicit or explicit in alternative intervention programs, and (3) each student is expected to participate in class discussions that emphasize minority issues that affect implementation. P/NP or letter grading.

M150. Transportation Geography. (4) (Same as Geography M149.) Lecture, three hours. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transport. Letter grading.

151. Urban Transportation Economics. (4) Lecture, three hours. Big cities offer many attractions, but high density also produces traffic congestion and air pollution. Can we have dense urban areas without congested traffic and polluted air? Analysis of economic explanations for transportation problems and examination of possible solutions. Because university campuses resemble small cities, they are used as examples to explore various policies (such as BruinGO at UCLA) that universities have adopted to improve transportation. Letter grading.

M160. Environmental Politics and Governance. (4) (Formerly numbered CM160.) (Same as Environmental Science M164.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of governance. Institutions and politics matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.

M162. Land Use and Development. (4) (Same as Environmental Science M162.) Examination of institutional and historical evolution of land use in U.S. Comparison and contrasting of how cities have evolved in different parts of U.S. and some recent trends in urbanization of state-level land-use policies and politics and ways in which local-
185SL. Community-Based Research in Planning. (4) Seminar, one hour; fieldwork, three hours. Prepara- ration to urban and regional planning minor courses, of which at least one should be related to subject area of service learning setting. Limited to ju- nior/senior minor students. Designed to serve as complement to service learning requirement and may be used to fulfill service learning requirement for minor. Stu- dents are matched to public, private, or nonprofit agency through Center for Community Learning and must complete minimum of 30 hours of work. Duties and responsibilities to be set by students and spon- soring organizations. Readings to be determined in consultation with instructor. P/NP grading.


195. Community Internships in Urban Planning. (4) Tutorial, 12 hours. Limited to junior/senior Urban and Regional Studies minors. Internship in super- vised setting in an agency or urban planning setting. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with super- vising faculty member required. P/NP grading.

199. Directed Research in Urban Planning. (2 to 8) Tutorial, three hours. Limited to juniors/seniors. Su- pervised individual research or investigation under guidance of faculty mentor. Culminating paper or proj- ect required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) Same as Ar- chitecture and Urban Design M201.) Lecture, three hours. Exploration of conceptual and historical struc- tures that shape current issues in architectural theory. Readings in primary texts serve as framework for un- derstanding nature of speculative inquiry in architec- tural context. Letter grading.

M202A-202B. Land Use. (1 to 8 each) (Same as Law M286.) Lecture, three hours. Course M202A is enforced requisite to 202B. Exploration of 21st-cen- tury land use issues through private practice and ac- tivation in California from basic planning, zoning, subdivi- sion controls, and official mapping to regional growth and development of housing supply and public se rvice pricing, and conflicts with applications of applied planning research project. Examination of law and policy: broad array of urban issues ex- amined, as is law's role as partial cause and cure of urban problems. Examination of law as changing pro- cess rather than collection of principles, so that stu- dents develop facility in interacting with law and lawyers in positive and forceful manner. S/U or letter grading.

M212. International/Comparative Planning Work- shop. (4) Seminar, three hours; field trips, five to 10 days. Topics of planning and policy in various interna- tional or domestic sites. Topics include urban and re- gional development, urban development, urban government, and policies. Environment issues, transportation, infrastruc- ture planning, housing development, community de- velopment, and/or physical planning. May be repeat- ed for credit. S/U or letter grading.


218. Graphics and Urban Information. (4) Lecture, two hours; studio, one hour. Presentation of basic gr- aphic methods and tools for conceptualization, analysis, and documentation of built environment. De- velopment of fundamental graphic ideation and communication. Letter grading.

219. Special Topics in Built Environment. (4) Lecture, three hours. Topics in 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; laboratory, 90 minutes. Prep- aration: passing score on mathematics proficiency ex- amination given first day of class. Introduction to mathematical and statistical concepts and methods with applications in urban planning. Review of basic mathematical concepts fundamental to plan- ning methods; linear and nonlinear functions focusing on growth curves and mathematics of finance; data measurement and display; descriptive statistics and probability; Introduction to use of computer as tool in analysis of planning-related data. Letter grading.

220B. Quantitative Analysis in Urban Planning II. (4) Lecture, three hours; laboratory, 90 minutes. Requi- site: course 220A or equivalent as demonstrated by passing score on mathematics proficiency ex- amination given first day of course 220A. Introduction to concepts of statistical inference and modeling, with emphasis on urban planning applications. Topics in- clude sampling, hypothesis testing, analysis of vari-
222A. Introduction to Planning History and Theory. (4) (Formerly numbered 222.) Lecture, three hours. Required of first-year M.A. students, typically in Fall Quarter; required of first-year Ph.D. students who have not completed comparable graduate work in planning history and theory. Exploration of planning thought and practice over time, leading authors and key issues in field of planning, traditional and insurgent historiography, and alternative approaches to planning for multiple and pluralistic publics. Letter grading.

222B-222C. Advanced Planning Theory and History I, II. (4-4) (Formerly numbered 210A-210B.) Lecture, three hours. Required of first-year Ph.D. students. Major ideas and theories of planning that have influenced its development from early-19th century to present. Letter grading.

M226A. 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 office environment. Letter grading.


229. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

M230. Introduction to Regional Planning. (4) (Formerly numbered 210.) 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.

233. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentations, examination of disaster management and response in both U.S. and developing countries. Exploration of how disaster and risk reduction relate to economic, vulnerable, and political factors, in addition to acts of nature. Structured to allow students to focus on distinct disaster contexts and themes as they read in reading and weekly sessions. Letter grading.

233. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolises. 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. Concurrently scheduled with course C133. S/U or letter grading.

M234A. Development Theory. (4) (Formerly numbered 234A.) (Same as Geography M234A.) Lecture, three hours. Review of basic literature and schools of thought on development theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on economy and rural social and economic structures in Third World. Presentation, through evaluation of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policy and rural and urban impacts. Gives students important background for courses M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

M234B. Ecological Issues in Planning. (4) (Formerly numbered 234B.) (Same as Geography M234B.) Lecture, three hours. Required preparation: course M265. Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how to address these questions in ways that go beyond green consumerism and ecological and human environments. American environmentalism has become dominant model for many conservation practitioners. Emphasis on idea of environmentally detrimental aspects and processes coexisting within the context of human experience. Letter grading.

M234C. Resource-Based Development. (4) (Same as Geography M234C.) Lecture, three hours. Recommended preparation: course M234A. Some major issues associated with development of specific natural resources. Topics include the nature of resource (or region associated with it), its previous management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.


M236A. Theories of Regional Economic Development I. (4) (Same as Geography M236A and Public Policy M240.) Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between regions, process of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

M236B. Globalization and Regional Development. (4) (Formerly numbered 236B.) (Same as Geography M236B.) Lecture, three hours. Requisite: course M236A. Application of economic development, location, and trade learned in course M236A to contemporary process known as globalization. Examination of nature and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.

236C. Advanced Workshop on Regions in World Economy. (4) Lecture, three hours. Requisite: course 236B. Advanced workshop on regional development examining changes in organization of production systems, their geographies, and processes that affect regional performance in globalized environment. Letter grading.

237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Introduction to methods and procedures of sectoral investigation as applied to regions, industries, companies, and their labor forces. Current theories and conceptions of industrial structure and industrial change. Investigation of characteristics and trends of industry sectors in Los Angeles resulting in industry profile that can serve as aid to planning and shaping economic development. Letter grading.

237B. Urban and Regional Economic Development Applications. (4) Lecture, three hours. Survey and analysis of economic development strategies in U.S. Because economic strategies seek to modify or shape existing conditions, focus on how policies attempt to harness dynamics associated with new forms of industrialization, intensified global competition, and interrelationships among capital, labor, and state. Letter grading.

237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of major regional trends and influences on economic development. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Concurrently scheduled with course CM137. Letter grading.

238. Global Labor Markets. (4) Lecture, three hours. Consideration of labor-related strategies, policies, and development projects in meeting the needs of global-local labor market. Review of major approaches to improving quality, quantity, and access to jobs, including training, regulation, migration policy, organizing strategies, and social safety net. Global in scope, with particular reference to countries of global south. Letter grading.

239. Special Topics in Regional and International Development. (4) Seminar, three hours. Topics in urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

M240. Local Government. (2 to 6) (Same as Law M241.) Lecture, three hours; discussion, three hours. Nature, roles, and history of welfare institutions in different societies; applicable social system theory of different components of welfare system; theory and research about welfare policies and organizational forms. S/U or letter grading.

242. Poverty and Inequality. (4) Lecture, three hours. Examination of relationship between urbanization and spatial inequality in U.S. — spatial dynamics of urban growth, levels and causes of spatial inequality, and implications of spatial inequality for low-income communities. Topics include concentrated pov- erty, residential segregation, immigrant neighbor- hoods, spatial disparities in access to opportunities, housing mobility, neighborhood health and safety, urban infrastructure, and political cohesion and participation. Analysis of role of politics, political cartography, and market forces in shaping the distribution of wealth and poverty. Letter grading.

M243. Privatization, Regulation, and Public Finance. (4) (Same as Public Policy M243.) Lecture, three hours; outside study, nine hours. Requisite: Public Policy 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 role this trend implies for state and local governments. Letter grading.

244. Urban Poverty and Planning. (4) Lecture, three hours. Examination of determinants of urban poverty, identification of determinants of the rate of poverty, and 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 finance for urban redevelopment, and municipal bond market. S/U or letter grading.
248. Poverty, Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Social Welfare M220.) 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. S/U or letter grading.

248. Law and Poor. (4) (Same as Public Policy M295 and Social Welfare M290.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and administration. Current reform consensus and major reforms. Letter grading.

249. Special Topics in Transportation Policy and Planning. (4) (Formerly numbered 251.) Lecture, three hours. Topics in transportation policy and planning selected by faculty members. May be repeated for credit. S/U or letter grading.

M250. Transportation, Land Use, and Urban Form. (4) (Formerly numbered M254.) (Same as Public Policy M220.) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan land-use planning, and land-use transportation planning for metropolitan areas. Emphasis is placed on spatial mismatch hypothesis, jobs/housing balance, transportation in strong central city and polycentric city, neotraditional town planning debate, rail transit and urban form. Letter grading.

251. Transportation and Land Use: Parking. (4) (Formerly numbered 252.) Lecture, three hours. Parking is key link between transportation and land use, but that link has been widely misunderstood. Transportation engineers typically assume that free parking simply is there at end of most trips, while urban planners treat parking as transportation issues that engineers must study. No profession is intellectually responsible for parking, and everyone seems to assume that someone else is doing hard thinking. Mistakes in planning for parking help to explain why planning for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Letter grading.

M253. Travel Behavior Analysis. (4) (Formerly numbered M256.) (Same as Public Policy M221.) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 201 and 203. Descriptions of travel patterns in metropolitan areas, recent trends and projections into 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.

254. Bicycle and Pedestrian Planning. (4) Lecture, three hours. Planning principles for making bicycling and walking are essential components of sustainable transportation systems. In response to growing concerns about access, safety, public health, equity, climate change, and community sustainability, many government agencies and private developers are planning to improve pedestrian and bicycle transportation. Exploration of field's relationship to land use and transportation planning, public health and environment. Detailed knowledge provided of various bicycle and pedestrian facilities and their appropriate contexts. Examination of bicycle and pedestrian planning in context of overall street design. Essentials of bicycle and pedestrian planning, including policies, programs, funding, and advocacy. In-class exercises and out-of-class planning projects. Letter grading.

M253. Travel Behavior Analysis. (4) (Same as Public Policy M221.) Lecture, three hours. Requisites: courses 207 and 220B. Description of travel patterns in metropolitan areas, recent trends and projections into 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.

255. Transportation Policy and Planning. (4) (Same as Public Policy 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, paratransit, bicycle and pedestrian planning, transportation for elderly and disabled. Letter grading.

M256. Transportation Economics, Finance, and Policy. (4) (Same as Public Policy 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 charges, congestion pricing; current issues in transit finance, federal and state and local subsidies, con- tracting and privatization of transit services. Letter grading.

257. Transportation and Economic Outcomes. (4) (Formerly numbered 259.) Lecture, three hours. Examination of equity issues related to urban transportation, with focus on complex relationships among urban spatial structure, transportation (travel patterns and transportation investments), and economic outcomes. Role of improving economic outcomes for low-income and minority households and communities. Letter grading.

M258. Transportation and Environmental Issues. (4) (Same as Public Policy M223.) Lecture, three hours. Connections between land use, linking transportation, air quality, and energy issues, chemistry of air pollution, overview of transportation-related approaches to air quality enhancement; new car tailpipe standards; vehicular inspection and maintenance issues; transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growth of automobile worldwide fleet; automobile in sustainability debate. Letter grading.

260. Environmental Politics and Governance. (4) (Formerly numbered C260.) Lecture, three hours. Understanding of environmental politics and governance is critical, regardless of career path. The textbook is Steckel and Holdaway’s Environmental Politics and Institutions: Innovations in American Environmental Policy. Letter grading.


262. Urban Environmental Problems: Water Resources. (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 basically provided little help with this system. Despite growing pressures to increase supplies, examination of environmental impacts, geography, use of water, and consideration of resource planning. S/U or letter grading.

M263. Introduction to Environmental Policy. (4) (Formerly numbered M263.) Lecture, three hours. Introduction to basic concepts and methods of environmental analysis covering a variety of topics with cross-disciplinary perspectives. Development of ability to analyze major environmental and resource issues as well as to read, discuss, and write critically about environmental policy. Letter grading.

M264. Environmental Law. (1 to 8 each) (Formerly numbered M264.) (Same as Law M290.) Lecture, three hours. Course M264A is enforced requisites include 264B. Examination of field of environmental law, with analysis of case law and public policy; legal consequences of public decision-making strategies and allocation of primary responsibility for various environmental decisions. Focus on air pollution and the Clean Air Act; other pollution policy issues underlying field. In Progress (M264A) and S/U or letter (264B) grading.

M265. Environmentalism. (4) (Formerly numbered M265.) (Same as Geography M265.) Lecture, three hours. Analysis of environmental theories and their practices in dynamic U.S. and international contexts. Issues of climate change, scenario planning, and matrix ecology and its implications in both urban and rural settings. Exploration of problematic issues of increasing internationalization (or international implications) of environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grading.


M267. Environmental and Resource Economics and Policy. (4) (Same as Public Policy CM250.) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 204 and 208. Survey of ways environmental economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions additional environmental economists that bear on public policies. Letter grading.

M268. Policy Analysis of Emerging Environmental Technologies. (4) (Same as Public Policy M286.) Lecture, three hours. Acquisition and utilization of economic, finance, planning, and policy analytic tools needed to evaluate factors that drive market adoption from early to middle market phases. Rooftop solar, electric vehicle, and energy efficiency as focal exam- ples intended to spur adoption. Letter grading.

269. Special Topics in Environmental Analysis and Policy. (4) Lecture, three hours. Topics in environmental analysis and policy selected by faculty members. May be repeated for credit. S/U or letter grading.

M270. Homelessness: Housing and Social Service Issues. (4) (Same as Social Welfare M260A.) Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness: who homeless are, what social services and housing are available, existing and proposed programs—appropriate architecture, management, and sources of funding. Outside speakers include providers of services to homeless. Letter grading.


M272. Real Estate Development and Finance. (4) (Same as Architecture and Urban Design M272.) Lecture, two hours; workshop; two hours; outside study, eight hours. Requisites: courses 220A, 220B. Recommended preparation for first-year students in real estate development and built environment area of concentration. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan packages, development plan, and
feasibility studies. Lectures and projects integrate development process with proposed design solutions that are appropriately tested to meet economic feasibility tests. S/U or letter grading.

273. Site Planning. (4) Lecture, 90 minutes; laboratory, 90 minutes. Requisite: course 274. Introduction to principles of site planning for urban areas. S/U or letter grading.

274. Introduction to Physical Planning. (4) Lecture/workshop, 90 minutes; discussion, 90 minutes. Designed for students with no prior physical planning background and for first-year M.A. students in community development. Tackles land use, environment, design, and development, and transportation policy and planning concentrations. Introductory overview of physical planning, land use, site analysis, and surveys; regulatory structures and social/community impacts. Letter grading.

M275. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Public Policy M243 and Social Welfare M290U.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations. Is problem housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M276A-276B. Urban Housing. (1 to 8 each) (Formerly numbered M276.) (Same as Law M278.) Lecture, three hours. Course M276A is enforced requisite to 276B. Lecture, two hours; discussion, one hour. Emphasis on the economic, social, and institutional forces that have shaped the demand for affordable housing in the United States, and the strategies that have been used to meet these demands. Letter grading.

277. Historic Preservation: Principles and Practice. (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 designations, adaptive reuse, citizen involvement, and social issues. S/U or letter grading.

278. Urban Labor Markets and Public Policy. (4) Lecture, three hours. Central issues in urban economic development are jobs — how to create them, how to help disadvantaged populations get access to them, and how to ensure that they are of adequate quality in terms of wages, advancement, and skill development. Examination of urban markets and work and what can be done to help them work better, with focus on U.S. Particular emphasis on low-wage, low-skill workers and marginalized groups, such as inner-city people of color and immigrants. Analyses of how urban labor markets work with discussions of policy options for making them work better and range of solutions, including job creation, workforce training, job ladder creation, union and community organizing, and immigration reform. Examination of power and economic inequality and how to make changes. Letter grading.

279. Seminar: Public Space. (4) Seminar, three hours. Topics in newly emerging areas in U.S. and elsewhere continue to grow rapidly at their edges in ways that many consider poorly planned. Discussion of causes of sprawl and what, if anything, should be done about it. Letter grading.

M280. Affordable Housing Development. (4) (Formerly numbered 252B.) Lecture, three hours. Suburbs are not new, but metropolitan areas in U.S. and elsewhere continue to grow rapidly at their edges in ways that many consider poorly planned. Discussion of causes and solutions. Letter grading.

M281. Introduction to History of Built Environment in U.S. (4) Lecture, two hours; discussion, one hour. Open to advanced undergraduates with consent of instructor. Introduction to history of physical forms of urbanization in America; survey of economic, political, social, and aesthetic forces behind creation of built environments. S/U or letter grading.

M282. Urban Design: Theories, Paradigms, Applications. (4) Lecture, three hours. Discussion and evaluation of philosophical bases, ideologies, and paradigms of urban design in last century; examination of how these are reflected on built environment of cities. Letter grading.

283. Community Research and Organizing. (4) Lecture, three hours. Examination of theory and practice of organizing, analysis of role of community organizing as empowerment strategy, and marginalized communities, and relationship of community and worker organizing to broader movements for social change. Analysis of different research methods and strategies in terms of best supporting organizing and movement building, with focus on community-based participatory research (CBPR). Understanding of theories, principles, and strategies of CBPR, appreciation of advantages and limitations of this approach, and skills necessary for participating effectively in CBPR projects. Analysis in depth of one organizing model and participation in ongoing research project that links community or worker organization, exploring links between research and organizing campaign to which it is connected. Particular attention to race, gender, and class dimensions of CBPR and assessment of power and decolonizing research. Letter grading.

C284. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C184. Letter grading.

285. Women and Community Development: Great Genders Debates. (4) Lecture, 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. Letter grading.

M286. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Public Policy M226 and Social Welfare M290L.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental role of nonprofits in the U.S. Today for supportive and advocacy organizing and management in nonprofit sector. Students develop management skills in strategic thinking/problem solving, project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketting, that nonprofit managers typically face. Letter grading.

M287. Nonprofit Sector, State and Civil Society. (4) (Same as Public Policy M227 and Social Welfare M290S.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped nonprofits in the United States and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and divergent organizational perspectives. Comparative perspective between U.S. and other countries. S/U or letter grading.

M288. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Public Policy M226 and Social Welfare M290L.) 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.

M289. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Public Policy M247 and Social Welfare M241E.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical processes of problem solving including substantive social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other. Letter grading.

M291. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design CM247A.) Lecture, three hours. Relationship of built environment to natural environment through whole life cycle 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 energy. Lecture, three hours.

M292. Elements of Urban Design. (4) (Same as Architecture and Urban Design M271.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socioeconomic, and technological framework of urban systems and its dynamic interrelations. S/U or letter grading.

M293. Politics, ideology, and Design. (4) (Same as Architecture and Urban Design M288.) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294. Housing in Developing Countries: Policy Objectives and Options. (4) Lecture, three hours. Examination of relevance of public policies and their intended and unintended effects on demand and supply in developing countries. How definition of housing problems, and scope of solutions, has changed over time. Critical assessment of some key solutions that have been tried in past, their advantages, shortcomings, and resultant trade-offs, and likely directions for future housing policy. Letter grading.

298. Special Topics in Emerging Planning Issues. (4) Seminar, three hours. Topics in newly emerging planning issues such as role of cutting edge technology, innovative policies, and experimental programs. May be repeated for credit. S/U grading.

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

M404. Joint Planning/Architecture Studio. (4) (Same as Architecture and Urban Design M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Shattuck Water and Power buildings, University of California Los Angeles housing. Letter grading.
UROLOGY
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http://urology.ucla.edu

Chair
Mark S. Litwin, M.D., M.P.H., F.A.C.S., Chair

Scope and Objectives
The fundamental goal of the Department of Urology is to teach medical students the general principles of diagnosis and management in diseases of the genitourinary tract. Urology encompasses a wide scope of human illness, including conditions that are congenital and acquired, pediatric and adult, male and female, malignant and benign. The department functions to acquaint students with the skills necessary to manage these conditions in the initial stages and over the long term.

Instruction spans all four years of the undergraduate medical school curriculum but is concentrated during the clinical rotations. Students spend 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 Reagan UCLA, Harbor-UCLA, Olive View-UCLA, Santa Monica UCLA, and West Los Angeles VA Medical Centers.

For further details on the Department of Urology and a listing of the courses offered, see http://urology.ucla.edu.

UROLOGY

Upper Division Course

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

VISUAL AND PERFORMING ARTS EDUCATION

Interdisciplinary Minor
School of the Arts and Architecture

UCLA
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Angelia S.-Y. Leung, M.A., C.M.A., Chair

Faculty Committee
Judith F. Baca, M.A. (Chicana and Chicano Studies, World Arts and Cultures/Dance)
Tara C. Browner, Ph.D. (Ethnomusicology)
Barbara Drucker, M.F.A., ex officio (Art)
Frank Heuser, Ph.D. (Music)
Angelia S.-Y. Leung, M.A., C.M.A. (World Arts and Cultures/Dance)
Willem Henri Lucas, B.A. (Design | Media Arts)
Patricia A. Wideman, M.F.A. (Art)

Scope and Objectives
The Visual and Performing Arts Education minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system, (2) introduce students to a potential range of careers in the arts, including teaching artists, arts specialists, museum educators, arts administrators, and arts advocates and to a variety of arts-related programs and cultural agencies, including community arts centers, museums, after-school programs, and nonprofit arts institutions, (3) contribute to improved communication and interaction between the University, extended Los Angeles community, K-12 public school system, and students in the arts, and (4) expand the School of the Arts and Architecture’s commitment to University and community partnerships by linking teaching and research with undergraduate education, civic engagement, and support for institutional priorities to improve the quality of life for Los Angeles residents.

Undergraduate Study

Visual and Performing Arts Education Minor

The Visual and Performing Arts Education minor is intended to supplement the education of undergraduate students enrolled in the Architectural Studies, Art, Dance, Design I Media Arts, Ethnomusicology, Music, and World Arts and Cultures majors.

To apply to the minor, students must have completed at least 50 percent of the lower division requirements of their specific majors and Arts and Architecture 102 with a grade of B or better, be in good academic standing with an overall grade-point average of at least 2.7, and submit a minor application and a statement of interest, including any previous teaching and/or outreach experience.

Required Upper Division Courses (28 to 32 units): (1) Arts and Architecture 102, (2) two courses selected from Arts and Architecture 100, 101, Art M186A/M186AL, Dance C145 (with consent of adviser), 166, 167, Ethnomusicology 196, Music 100A, Theater 118A, 118D, World Arts and Cultures 103, 120 (with consent of adviser), C155, a 4-unit 195 course from the Departments of Art, Design I Media Arts, Ethnomusicology, Music, or World Arts and Cultures/Dance, or a 195 sponsored by the Center for Community Learning, (3) two courses selected from Education M108, 118, 120, 121, 122, 123, C125, C126, 127, 128, 129, 130, 131, 132, 133, 138, M186 (courses 120, 121, 127, and 130 are recommended), and (4) a two-course capstone sequence (Arts and Architecture 192, 192SL) that includes a guided teaching experience.

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

No more than two upper division courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

WOMEN’S STUDIES
See Gender Studies
WORLD ARTS AND CULTURES/DANCE
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Professors
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Susan L. Foster, Ph.D.
David H. Gere, Ph.D.
Victoria E. Marks, B.A.
Peter Nabokov, Ph.D.
Allen F. Roberts, Ph.D.
Mary Nooter Roberts, Ph.D.
David J. Rouselle, B.A.
Peter M. Sellars, B.A.
Christopher A. Waterman, Ph.D.

Professors Emeriti
Judith B. Alter, Ed.D.
Donald J. Cosentino, Ph.D.
Irma Dosamantes-Beaudry, Ph.D.
Elsie A. Dunin, M.A.
Pia S. Gilbert
Michael O. Jones, Ph.D.
Judy M. Mitoma, M.A.
Colin H. Quiqley, Ph.D.
Marta E. Savigliano, Ph.D.
Carol J. Scottorn, M.A.
Doris Siegel
Allegre Fuller Snyder, M.A.
Emma Lewis Thomas, Ph.D.

Associate Professors
Daniel Z. Froot, M.F.A.
Angelia S.-Y. Leung, M.A., C.M.A.
Janet M. O’Shea, Ph.D.
Lionel A. Popkin, M.F.A.
David Delgado Shorter, Ph.D.
Cheng-Chieh Yu, M.F.A.

Assistant Professors
Anurima Banerji, Ph.D.
Aparna Sharma, Ph.D.

Lecturers
Patrick Pak, Ph.D.
Jason C. Tsou
Hesen Weiren, M.F.A.

Adjunct Professor
Simone Forti, B.F.A.

Adjunct Assistant Professor
Vij Prakash

Visiting Assistant Professor
Rennie Harris

Scope and Objectives
Guided by an interdisciplinary faculty of artists and arts scholars, the academic programs in the Department of World Arts and Cultures/Dance (WAC/DAN) have three overlapping missions: (1) the formulation of critical theoretical and intercultural insights into artistic creativity and the politics of representation, (2) the creative interrogation of dance as a cultural practice. Students study a variety of dance techniques from around the world throughout their studies. They enroll in a four-term sequence in dance composition, with additional opportunities to participate in the creation of their own dances, as well as working as dancers in the creation of new works by faculty members and visiting artists. Further, they engage in a core of four courses in the study of scholarly discourse around the body and dance, launching a critical inquiry into their own study of bodily practices, internalization of the embodied experience, and how bodily ideas and embodied experiences are interpreted and communicated outwardly and interpersonally, both locally and globally.

The B.A. in Dance thoroughly integrates learning to dance, learning to make dances, and critical interrogation of dance as a cultural practice. Students study a variety of dance techniques from around the world throughout their studies. They enroll in a four-term sequence in dance composition, with additional opportunities to participate in the creation of their own dances, as well as working as dancers in the creation of new works by faculty members and visiting artists. Further, they engage in a core of four courses in the study of scholarly discourse around the body and dance, launching a critical inquiry into their own study of bodily practices, internalization of the embodied experience, and how bodily ideas and embodied experiences are interpreted and communicated outwardly and interpersonally, both locally and globally.

The B.A. in Dance highlights culture and representation as key perspectives for understanding creativity in local and global arenas. Three areas of cross-cultural and interdisciplinary study are available: arts activism, critical ethnographies, and visual cultures. These areas define the department commitment to a range of practices, including ethnography, activism, visual and related expressive arts, documentary and short films, museum and curatorial studies, performance, and other creative perspectives and methods. Courses combine theory and practice and are grounded in culturally diverse artistic expressions.

All students are encouraged to complement the required set of core and elective departmental courses with others offered across campus, such as courses from ethnic and area studies programs, and may organize their course of study in relation to particular interests or professional goals (e.g., international comparative studies, intercultural studies, education, area specializations such as Africa, Asia, or Latin America, minority discourse, gender studies). The graduate program offers Master of Arts and Ph.D. degrees in Culture and Performance and a Master of Fine Arts in Dance, with an emphasis on choreography. Culture and performance studies research communities, cultures, and transnational movements through heritage and globalization studies, multivocal ethnographies, dance and theories of corporeality and embodiment, visual and material culture, critical museum and curatorial studies, documentary practice and Internet interventions, as well as arts activism and interdisciplinary art-making. The M.F.A. in Dance offers opportunities to engage multiple movement practices as students work on pioneering research in the form of new choreography. Students may focus in media, dance studies theory, and the theories of the body as supplements to their work as choreographers. The Art | Global Health Center within the department presents further opportunity for learning and practice.

While operating with considerable independence, the two graduate degree areas are unified by the department’s common concern for aesthetic production, corporeality and performance, the dynamics of tradition, and culture-building in contemporary societies. Connections are forged between critical theory and artistic practices, and attention is given to the changing social roles and responsibilities of artists, practitioners, and scholars of the arts in the U.S. and worldwide.

Undergraduates and graduates have excelled in fields including technology and the arts, videography, documentary work, public service, education, theatrical/events production, performing arts, urban planning, law, environmental activism, public health, and medicine. They have made careers in community nonprofits and activist groups, government arts agencies, museums, and arts foundations. Potential careers for M.A., Ph.D., and M.F.A. graduates also include positions in research universities and colleges, and M.F.A. graduates are active as choreographers/performers in their own companies or with other professional organizations.

Undergraduate Study
Dance B.A.

All students take a set of courses as preparation for the Dance major that focuses on the integration of dance and critical analysis. For students who transfer into the major, depending on the year of entry and prior coursework, lower division preparatory coursework may be waived or substituted. When students enter the major, they continue their studies of dance techniques, composition, and analysis, and they also enroll in a primary and secondary research area.

The three research areas are (1) creative inquiry as research, (2) critical dance studies, and (3) dance and civic engagement. The creative inquiry as research area is grounded in contemporary choreography with a focus on dance-making and performing in a wide range of genres from throughout the world. Opportunities are provided for students to present their own choreography, to participate in performances by others, and to study performance production and videography. The critical dance studies area focuses on study of scholarship.
examining the body and dance, in their cultural and historical contexts. Courses in dance history, dance and culture, and dance as an iden-
tificatory practice are offered that enable stu-
dents to analyze the rhetorical and ideological significance of dance. The dance and civic en-
gagement area is grounded in the investigation and activist-oriented work of artists and the role of dance in the public sphere, and offers a wide range of courses in the nature of activism as well as opportunities for fieldwork, education in-
terships, and other forms of community in-
volvement.

Students select one area as their primary area and another as their secondary area. Elective options provide further deepening of student knowledge and skills in any or all of the areas. Students may also consider courses from pro-
grams outside the department and may orga-
nize their course of study in relation to their par-
ticular interests.

Students who wish to confer with the depart-
mental student affairs officer regarding program planning and major requirements should con-
tact the undergraduate counselor at (310) 825-
8537.

Admission
New students are admitted to the Dance major for Fall Quarter only. All applicants are reviewed individually, based on submission of a written re-
search paper, transcripts, two letters of rec-
ommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For freshmen applicants, college placement test scores are also considered.

Current UCLA students who petition to change their major are required to meet with the stu-
dent affairs officer prior to application. They are required to take selected departmental courses before and during the term in which they apply to the program. They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of appli-
cation. Students may apply at the beginning of Winter Quarter for admission into the program the following Spring or Fall Quarter. Students may be interviewed as part of the application process.

Preparation for the Major
Required: World Arts and Cultures 1, 20, 24, 33, and one 5-unit elective selected from course 2, 22, M23, or 51W.

The Major
The Dance major consists of 76 units of coursework.

Required: (1) Dance 101, 117A, 117B and (2) 10 units in the primary area and 5 units in the secondary area selected from the following: (a) creative inquiry as research — Dance 116, 117C, 118, 119, 169, C171, World Arts and Cultures 170, 174A, 174B, C180, or other courses with faculty approval, (b) critical dance studies — Dance C145, 149, 150, C152, M157, 158, 159, 160, 161, C171, 182, World Arts and Cultures C168, 199, or other courses with fac-
ulty approval, (c) dance and civic engagement — Dance 165, 166, 167, C184, World Arts and Cultures 100A, 100B, 103, 144, 177SL, 195, or other courses with faculty approval. Students also have the option to propose a senior honors project through World Arts and Cultures 186A and 186B.

World Arts and Cultures/B.A.
Three areas of cross-cultural and interdisciplin-
ary study are available in the World Arts and Cultures major: arts activism, critical ethnogra-
phies, and visual cultures. Students are intro-
duced to all three areas through introductory courses the first year and then by a pyramidal progression, they develop intermediate knowl-
edge in two areas followed by advanced knowl-
edge in the area selected as the individual spe-
cialty. Four lower division and three upper divi-
sion core courses are required to establish interdisciplin ary relationships between theory and discourse, methods, and experience. Rep-
resentation is studied within societies — as people understand their own lives and the world around them — and then from the out-
side looking in through humanistic scholarship.

The major emphasizes hands-on activities such as internships to build skills necessary to participate in the required senior projects. In consultation with faculty advisers students se-
lect elective courses within and outside the de-
partment to increase knowledge of particular area studies, histories, literatures, theories, and methods.

Students who wish to confer with the depart-
mental student affairs officer regarding program planning and major requirements should con-
tact the undergraduate counselor at (310) 825-
8537.

Admission
New students are admitted to the major for Fall Quarter only. All applicants are reviewed indi-
vidually, based on submission of a written re-
search paper, transcripts, two letters of recom-
modation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For freshmen applicants, college placement test scores are also considered.

Current UCLA students who petition to change their major are required to meet with the stu-
dent affairs officer prior to application. They are required to take selected departmental courses before and during the term in which they apply to the program. They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of appli-
cation. Students may apply at the beginning of Winter Quarter for admission into the program the following Spring or Fall Quarter. Students may be interviewed as part of the application process.

Preparation for the Major
Required: World Arts and Cultures 1, 20, 24, 33, and one 5-unit elective selected from course 2, 22, M23, or 51W.

The Major
The World Arts and Cultures major consists of 45 units of coursework.

Required: (1) World Arts and Cultures 100A or 100B, 104, 124; (2) 12 units from the following three areas, including two courses from one area and one course from another: area 1 (arts activism) — World Arts and Cultures 120 (with faculty approval), 144, C158, C159, 160, area 2 (critical ethnographies) — courses 120 (with faculty approval), 121, C142, C150, C151, area 3 (visual cultures) — courses 120 (with faculty appro

Senior Honors Project
All students must also complete World Arts and Cultures 186A and 186B (or two equivalent courses with faculty approval), the required se-
nior honors project which must be selected from each student’s area of inquiry. Students begin to identify a project in Spring Quarter of their junior year and submit a senior project proposal for faculty approval by the beginning of the senior year. They begin to work with a designated faculty adviser in Fall Quarter of the
senior year. Projects may include written theses, visual ethnographies, documentaries, installations, short films, internships, community service, field-based research, and curatorial projects, as well as other formats. Projects are crafted in close consultation with a faculty advisor so as to provide capstone experiences that draw together ideas and abilities from four years of study, while positioning students for postgraduate opportunities for further study or for entrance to job markets.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa

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 a Master of Fine Arts (M.F.A.) degree in Dance.

Dance

Lower Division Courses

1. Global Perspectives on Dance. (5) Lecture, three hours; discussion, one hour. Examination of practices of choreography, improvisation, and technique in different cultural settings and historical eras. Introduction to field of dance studies through analysis of broad spectrum of philosophies and practices within global context, with focus on creative act of dance-making, thinking and understanding act of improvising, and diverse ways of training one’s body. By framing process of analysis within array of historical periods and cultural settings, development of capacity to engage with dance as aesthetic form, artistic practice while refining critical seeing, thinking, and writing skills. P/NP or letter grading.

7. Beginning World Arts Practices in Middle East/ North Africa and Diaspora. (2) (Formerly numbered World Arts and Cultures 6.) 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 Afro-Caribbean. Variable topics, such as asante dancing, Salsa, and Senegalese or Afro-Caribbean masking traditions, 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) (Formerly numbered World Arts and Cultures 8.) 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) (Formerly numbered World Arts and Cultures 9.) Studio, three hours. Beginning-level study of world arts practices originating from North America, including 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) (Formerly numbered World Arts and Cultures 10.) Studio, three hours. Beginning-level study of world arts practices originating from East Asia, including China, Korea, and Japan. Variable topics, such as Bharata Natyam (classical dance of India), bhangra (diasporic social dance), and hatha yoga, 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) (Formerly numbered World Arts and Cultures 11.) Studio, three hours. Beginning-level study of world arts practices originating from South Asia and extending to cultures of South Asian diasporas, including communities in England and West Africa. 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.

12. Beginning World Arts Practices in Southeast Asia and Diaspora. (2) (Formerly numbered World Arts and Cultures 12.) 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 legong, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

13. Beginning World Arts Practices in Europe and Diaspora. (2) (Formerly numbered World Arts and Cultures 13.) Studio, three hours. Beginning-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including U.S. Variable topics, such as flamenco, Balinese folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

14. Beginning Modern/Postmodern Dance. (2) (Formerly numbered World Arts and Cultures 15.) Laboratory, four hours. Study of dance technique. Variable topics, such as postmodern dance, postmodern postdance artists’ work. May be repeated twice for credit. P/NP or letter grading.

15. Beginning Improvisation in Dance. (2) (Formerly numbered World Arts and Cultures 16.) Lecture, one hour; laboratory, three hours. Introduction to creative exploration in movement through improvisational and compositional exercises that access and develop imagination, find relationship between imagination and dance making, and enrich movement vocabulary. May be repeated once for credit. P/NP or letter grading.

44. World Dance Histories. (5) (Formerly numbered World Arts and Cultures 44.) Lecture, three hours; discussion, two hours. Comparative framework for looking at dance practices through time as they have developed around world, questioning relation of dance to culture and politics and providing students with tools for investigating histories of any given dance form. P/NP or letter grading.

45. Introduction to Dance Studies. (4) (Formerly numbered World Arts and Cultures 45.) Lecture, three hours. Enforced requisite: course 44. Introduction to discipline of dance studies, with focus on study of corporeality as key contemporary perspective on body. Multidisciplinary approach to dancing bodies conceptually and socially constructed, including folk to gender, race, class, and national identity. P/NP or letter grading.

56. Intermediate World Arts Practices in Sub-Saharan Africa and Diaspora. (2) (Formerly numbered World Arts and Cultures 56.) Studio, three hours. Intermediate-level study of world arts practices originating from sub-Saharan Africa or from cultures of African diaspora, including Brazil and Afro-Caribbean. Variable topics, such as dance of Ghana, 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.

57. Intermediate World Arts Practices in Middle East/North Africa and Diaspora. (2) (Formerly numbered World Arts and Cultures 57.) Studio, three hours. Intermediate-level study of world arts practices originating from Middle East and North Africa. Variable topics, such as belly dance or Israeli folk dance, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

68. Intermediate World Arts Practices in Latin America and Diaspora. (2) (Formerly numbered World Arts and Cultures 58.) 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) (Formerly numbered World Arts and Cultures 59.) Studio, three hours. Intermediate-level study of world arts practices originating from North America, including 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.

60. Intermediate World Arts Practices in East Asia and Diaspora. (2) (Formerly numbered World Arts and Cultures 60.) Studio, three hours; outside study, three hours. Intermediate-level study of world arts practices originating from East Asia, including China, Korea, and Japan. Variable topics, such as movement and music techniques of Beijing Opera, Korean shamanism, folk dance practices of East Asia, 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) (Formerly numbered World Arts and Cultures 61.) 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), bhangra (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) (Formerly numbered World Arts and Cultures 62.) 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) (Formerly numbered World Arts and Cultures 63.) Studio, three hours. Intermediate-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including U.S. Variable topics, such as flamenco, Balinese 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 World Arts and Cultures 64.) Studio, four hours. Technical training with emphasis on increasing skill. May be repeated twice for credit. P/NP or letter grading.

67A. Theories and Methods in Dance Composition I: Languages. (4) (Formerly numbered World Arts and Cultures 67A.) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 16. Examination of diverse movement...
sources from which dances are made. How do different choreographers envision vocabularies of movement they use? How do they select or create movement out of which they create dance? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Readings about and viewing of videos of selected artists' work and their different strategies for creating languages of their dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

67B. Theories and Methods in Dance Composition II: Processes. (4) (Formerly numbered World Arts and Cultures C114.) Lecture, four hours; studio, two hours; outside study, eight hours. Enforced requisite: course 67A. Examination of diverse processes through which creation of dance can take place. How are movement, form, function, and theoretical concerns integrated within different cultural contexts and different historical moments. Readings about and viewing of videos of selected artists' work and their different strategies for creating languages of their dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

Upper Division Courses

101. Theories of Dance. (5) Lecture, four hours; discussion, two hours. Enforced requisite: course 45. Ideas of dance, choreography, and movement have achieved broad resonance in contemporary performance, art, politics, culture, and studies of social behavior. Examination of concepts and approaches to dance-making, with development of its vocabulary within field and beyond, concentrated in four principal approaches: history, ethnography, choreographic analysis, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodiment, social constructions of identity and difference, and relationship between aesthetics and politics. Design of dance performances to illustrate link between theory and practice. How dance creates alternative modes of history and knowledge in relation of cultural contexts. P/NP or letter grading.

C106A. Advanced World Arts Practices in Sub-Saharan Africa. (2) (Formerly numbered World Arts and Cultures C106A.) Lecture, three hours; outside study, three hours. Advanced-level study of world arts practices originating from sub-Saharan Africa and the Caribbean. Variable topics and genres, such as West Africa (Burkina Faso, Mali, Guinea, Senegal) and diaspora (Haiti, Brazil, Caribbean, Cuba), including cultural and historical contexts. May be repeated for credit without limitation. Concurrently scheduled with course C406A. P/NP or letter grading.

C109A. Advanced World Arts Practices in North America and Diaspora. (2) (Formerly numbered World Arts and Cultures C109A.) Lecture, four hours; outside study, three hours. Advanced-level study of world arts practices originating from North America, including U.S., Canada, and Native American. Variable topics and genres, such as Native American dance, jazz, and jazz-tap, in cultural and historical contexts. May be repeated for credit without limitation. Concurrently scheduled with course C409A. P/NP or letter grading.

110B. Dance in East Asia. (4) (Formerly numbered World Arts and Cultures C110B.) 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.


113A. Advanced World Arts Practices in Europe and Diaspora. (2) (Formerly numbered World Arts and Cultures C113A.) Lecture, four hours; studio, two hours; outside study, three hours. Advanced-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including 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 C413A. P/NP or letter grading.

C115. Advanced Modern/Postmodern Dance. (2) (Formerly numbered World Arts and Cultures C115.) Studio, six hours. Requirement: 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 C415. P/NP or letter grading.

C116. Advanced Improvisation in Dance. (2) (Formerly numbered World Arts and Cultures 116B.) Studio, four hours; outside study, eight hours. Enforced requisite: courses 16, 67A, 67B. Examination of how locational differences influence world of dancers. How does occurrence of dance, concert, festival, ritual, or celebration influence experience of it? What are factors that need to be considered when locating dance in one particular place? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Examination of range of locations for dances, including proscenium stages, theaters in round, parks, sidewalks, temples, amphitheaters, village squares, and other site-specific locations that endow dance with specific significance and endow it with place in construction of new dances. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

117A. Theories and Methods in Dance Composition III: Locations. (4) (Formerly numbered World Arts and Cultures 117A.) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: courses 16, 67A, 67B. Examination of how locational differences influence world of dancers. How does occurrence of dance, concert, festival, ritual, or celebration influence experience of it? What are factors that need to be considered when locating dance in one particular place? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Examination of range of locations for dances, including proscenium stages, theaters in round, parks, sidewalks, temples, amphitheaters, village squares, and other site-specific locations that endow dance with specific significance and endow it with place in construction of new dances. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

117B. Theories in Dance Composition IV: Impacts. (4) (Formerly numbered World Arts and Cultures 117B.) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: courses 16, 67A, 67B. Examination of movement of dance to its audience. Synthesis of analyses undertaken in previous courses to determine how dances move their viewers. How do dances appeal to or address their audiences? How do dance vocabulary, sequencing, and location combine to create particular effects? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117C. Advanced Topics in Choreography. (4) (Formerly numbered World Arts and Cultures 117C.) Lec- ture, four hours; outside study, four hours. Enforced requisite: courses 16, 67A, 67B. Directed exploration in composition, with focus on developing theme-based choreographic works that are in-formed through themes with selected top- ics through lectures, readings, and discussion. Thematic topics include contemporary issues and concerns such as image, essence, reading, and discussion. Home, history, and memory; interculturalism; constructing identity. May be repeated for credit without limitation. P/NP or letter grading.

118. Advanced Interdisciplinary Composition. (4) (Formerly numbered World Arts and Cultures 118.) Lecture, four hours; studio, two hours. Enforced requisite: courses 67A, 67B. 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.

119. Advanced Intercultural Composition. (4) (Formerly numbered World Arts and Cultures 119.) Lecture, four hours; studio, two hours. Enforced requisite: courses 67A, 67B. 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.

122. Music and Dance Collaborations. (4) Studio, four hours. Opportunity for directors, choreogra- phers, and composers to work together creating and developing material in developing world. Exploration of different forms and ways of approaching creative process of making dance and music, pre- senting material on weekly basis, and developing skills in collaboration, creation, and execution. Concurrently scheduled with course C222. P/NP or letter grading.

C145. Selected Topics in Dance Studies. (4) (Formerly numbered World Arts and Cultures C145.) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Selected topics in study of dance and corporeality. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit without limitation. Concurrently scheduled with course C245. P/NP or letter grading.

149. Dance in Multicultural U.S. (4) (Formerly numbered World Arts and Cultures 149.) Lecture, two hours; discussion, one hour; laboratory, one hour. Designed for juniors/seniors. Study of dance performance in U.S., with emphasis on genres that can be viewed in multicultural Los Angeles, from concert modern/postmodern dance, Mexican folklorico, and Japanese butoh to popular idioms and video dance. Attention to genres from Native America, Americas, Oceania, Asia, Africa, and Europe. Student projects involve creation of in-class performances. P/NP or letter grading.

150. History of Dance in Culture and Performance. (4) (Formerly numbered World Arts and Cultures 150.) Lecture, two hours; discussion, one hour; laboratory, one hour. Study of dance in historical and cul- tural contexts, its function, and theoretical. Student projects involve creation of in-class performances. Focus on topics from traditional and recent research in world dance. P/NP or letter grading.

C152. History and Theory of Modern/Postmodern Dance. (4) (Formerly numbered World Arts and Cul- tures C152.) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Study of dance and choreogra- phy and writing. Concurrently scheduled with course C252. P/NP or letter grading.

M157. Rechoreographing Disability. (Formerly numbered World Arts and Cultures 157.) (Same as Disability Studies 157.) Lecture, four hours. Through study of range of performance by, featuring, or about people who identify as disabled, reading and discussion of range of writing about experiences of disability and process of making work about disability by key artists and thinkers. Introduction to concept of choreography as political/cultural idea broadly defined as scored movement and organization and behavior of bodies, as well as choreography as poetic form for World Arts and Cultures/Dance / 649
expression of ideas, creative tool, or product. Viewing and discussion of work, and embodying ideas through movement and dance-making. P/NP or letter grading.

158. Choreographing Gender. (4) Formerly numbered World Arts and Cultures 158.) Lecture, three hours; laboratory, two hours. Designed for juniors/ seniors. Analysis of aesthetic codes and theatrical choreography as they intersect with construction of gender in U.S., with close attention to race, class, and sexuality. P/NP or letter grading.

159. Movement Theories. (2) Formerly numbered World Arts and Cultures 159.) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Use of variable theoretical frameworks and techniques such as labananalysis to emphasize culturally defined processes of observing, analyzing, and describing human movement. P/NP or letter grading.

160. Topics in Body Mechanics. (4) (Formerly numbered World Arts and Cultures 160.) Lecture, three hours; studio, one hour. Designed for juniors/seniors. Variable topics course with discussion of injury prevention, anatomy for dancers, and study of biological and physical principles of human movement as related to dance. May be repeated for credit without limitation. P/NP or letter grading.

161. Movement Observation and Analysis. (4) (Formerly numbered World Arts and Cultures 161.) Lecture, two hours, two hours, Dance experience for juniors/seniors. Use of variable theoretical framework and techniques such as Laban 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 World Arts and Cultures 165.) Lecture, two hours; laboratory, three hours. Introduction to movement concepts, skills, and teaching principles for modern/postmodern dance instruction. Supervised teaching practicum included. P/NP or letter grading.

166. Dance as Culture in Education. (4) (Formerly numbered World Arts and Cultures 166.) Lecture, two hours; laboratory, two hours. Theoretical and practical aspects of teaching ethnic dance, especially in higher education, and to children.

167. Creative Dance for Children. (4) (Formerly numbered World Arts and Cultures 167.) Lecture, three hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for teaching children about dance as creative medium of expression. P/NP or letter grading.

169. Repertory Tour Ensemble. (2 or 4) (Formerly numbered World Arts and Cultures 169.) 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 problems of touring companies with variable repertoire. May be repeated once. P/NP or letter grading.

C184. Production Arts Seminar. (4) (Formerly numbered World Arts and Cultures C184.) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, production and technologies of public events, production management, event marketing, public relations, fund-raising, legalities, and archives. Concurrently scheduled with course C243. P/NP or letter grading.

Graduate Courses

211A-211F. Advanced Choreography. (4 each) (Formerly numbered World Arts and Cultures 211A-211F.) Lecture, two hours; studio, two hours. Theoretical and practical aspects of advanced choreography for students who have reached level of self-initiation of substantial creative work. Refined and realistic self-evaluation, critical counsel of acknowledged choreographers. S/U or letter grading.

222. Music and Dance Collaborations. (4) (Formerly numbered World Arts and Cultures 222.) Studio, four hours. Opportunity for directors, choreographers, and composers to work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching creative process of making dance and music, presenting and developing skills for discussion, critique, and review. Concurrently scheduled with course C122. S/U or letter grading.

225A-225B. Theories of Movement: Labananalysis. (4-4) (Formerly numbered World Arts and Cultures 225A-225B.) 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 theoretical understanding of role of movement in dance, nonverbal behavior, and cross-cultural dance studies. Focus on complex movement patterns and timing. S/U or letter grading.

230. Research Methods and Bibliography in Dance. (4) (Formerly numbered World Arts and Cultures 230.) Lecture, four hours. Survey of methods for scholarly analysis of dance materials using systems from social sciences, physical sciences, and humanities. S/U or letter grading.

C243. Production Arts Seminar. (4) (Formerly numbered World Arts and Cultures C243.) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mini-performance, marketing, public relations, fund-raising, legalities, and archives. Concurrently scheduled with course C184. S/U or letter grading.

C245. Selected Topics in Dance Studies. (4) (Formerly numbered World Arts and Cultures C245.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corporeality. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit without limitation. Concurrently scheduled with course C145. S/U or letter grading.

C252. History and Theory of Modern/Postmodern Dance. (4) (Formerly numbered World Arts and Cultures C252.) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Concurrently scheduled with course C152. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundations of dance production practices, including but not limited to, design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to reflect on their own work and that of others. Completion of production project required. May be repeated for maximum of 12 units. Concurrently scheduled with course C271. P/NP or letter grading.

C406A. Advanced World Arts Practices in Sub-Saharan Africa and Diaspora. (2) (Formerly numbered World Arts and Cultures C406A.) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from sub-Saharan Africa and African diaspora. Variable topics and genres, such as West Africa (Burkina Faso, Mali, Guinea, Senegal) and diaspora (Haiti, Brazil, Caribbean, Cuba), including cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C106A. S/U or letter grading.

C409A. Advanced World Arts Practices in North America and Diaspora. (2) (Formerly numbered World Arts and Cultures C409A.) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from North America, including U.S., Canada, and Native America. Variable topics, such as Native American dance, jazz, and hip hop, 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) (Formerly numbered World Arts and Cultures C413A.) 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 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 C134A. S/U or letter grading.

C415. Advanced Modern/Postmodern Dance. (2) (Formerly numbered World Arts and Cultures C415.) Studio, six hours. Requisite: 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) (Formerly numbered World Arts and Cultures 441.) Laboratory, four to eight hours (one or two hours may be individualized consultation). Skills and understanding of production components in roles of stage manager, production assistants, and producer. May be repeated for maximum of 8 units. S/U grading.

452. Directed Field Study in Dance Education. (2 to 8) (Formerly numbered World Arts and Cultures 452.) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. No more than 4 units may be applied toward M.A. degree requirements. S/U grading.

490. Projects in Choreography and Performance. (2 to 8) (Formerly numbered World Arts and Cultures 490.) 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 mounted concert by each student leading to fully mounted performance. May be repeated for maximum of 8 units. S/U grading.

498. Professional Internship in Dance. (4, 8, or 12) (Formerly numbered World Arts and Cultures 498.) Seminar, to be arranged. Full- or part-time supervised internship in professional arts contexts, including but not limited to, dance company, arts organization, school, or other site. Limited to M.F.A. students. Internship in community school or other approved site. No more than 4 units may be applied toward M.A. degree requirements. S/U grading.

650 / World Arts and Cultures/Dance
World Arts and Cultures
Lower Division Courses

1. Introduction to World Arts and Cultures. (5) Lecture, three hours; discussion, one hour. Survey of concepts and theories involved in intercultural, interdisciplinary study of art, aesthetics, and performance. Examination of interactions among various modes of creative expression, role of style in daily life, performative representation of cultural identity and difference, and interaction of diverse artistic traditions. Letter grading.

2. Local Seminar. (Formerly numbered 2A.) Seminar, four hours; outside study, 11 hours. Variable topics seminar with focus on scholarly and practice-based research in arts. In-depth investigations of topics ranging from body in cultural context, interdisciplinary art-making, visual cultures, oral genres, material culture, study of culture and performance, including individual and cultural identity through arts, creation of dance/theatrical performance, theoretical and analytical approaches to arts practice, arts activism, and other topics pertaining to broad fields of culture, performance, and dance. Research project, participation in ongoing divisions. Successful completion of written analysis, supervised fieldwork, individual and collaborative assignments, and/or practice-oriented processes. Substantial culminating project integrating theoretical and practical components of selected seminar topic required. May be repeated for credit without limit. Letter 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, cross-cultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

20. Culture: Introduction. (5) Lecture, four hours. Introduction to key concepts and major theoretical and methodological debates that characterize field of cultural studies, including discussion of notions of culture, popular culture, subculture, youth culture, hegemony, gender, race, class, and national identity. Letter grading.

22. Introduction to American Folklore Studies. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Cultural/historical survey of role of folklore in development of American civilization and of influence of American experience in shaping folklore in American society; attention also to representative areas of inquiry and analytical procedures. P/NP or letter grading.

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

24. World Arts, Local Lives. (5) Lecture, three hours; discussion, one hour. Use of Fowler Museum's long-term exhibition entitled “Intersections: World Arts/Local Lives” as object of study to examine many insights that arts can offer into social, political, and religious experience. Drawing heavily on cultures of Africa, Asia, Pacific, and Indigenous Americas, both ancient and contemporary, consideration of degree to which notions of aesthetics and efficacy are interwoven and interdependent in art forms made to address both immediate, personal, and social concerns. Use of specific case studies to illustrate and interrogate theoretical paradigms. P/NP or letter grading.

33. Indigenous Worldviews. (5) Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldviews as they are expressed through art, mythology, ritual, health practice, languages, and ecology. With examples spanning globe, consideration of issues of colonialism, tradition, religious change, legal and social implications of epistemological differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.

51W. Aliens, Psychics, and Ghosts. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36 or 36H. Approaches of discourse analysis and scientific method to understand how people make sense of other people's stories of aliens, psychics, and ghosts. Exploration of how people construct beliefs in what they do about human life, life after death, and other-than-human life. Satisfies Writing II requirement. Letter grading.

55. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours, outside study, three hours. Intermediate-level study of world arts practices crossing national and cultural boundaries. Variable topics, such as body music, cross-cultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

70. Production Practicum. (2) Lecture, 90 minutes; activity, three and one half hours. Introduction to practical perspectives on producing events in world arts and performance. Emphasis on role of world arts schools and departments to provide student support and planning and executing lecture series. Introduction to professional stage production principles and hands-on experience in technical theater. May be repeated for credit. P/NP grading.

78. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three to six hours. Designed for freshmen/sophomores. Private or semiprivate instruction in one world arts practice to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

80. Video Tools and Techniques. (2) Laboratory, four hours. Introductions and practices to train students in key techniques of video production. Basic skills spanned to develop short videos for circulation via DVD and/or Internet. Practical exercises based on materials and instruction provided in class, spanning production and postproduction processes of video making. Evaluation of students on these exercises and final submission of edited sequence of any or all materials developed during course. Training in technical aspects of video production and usage of video tools. P/NP or letter grading.

85. Sophomore-Year Proposal. (1) Lecture, 90 minutes. Planning for proposal for junior year of study, with attention to exploring resources of department and University as whole. P/NP grading.

Upper Division Courses

100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Discussion of what constitutes artist's social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading.

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One's ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of moral engagement, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; studio, course BY. Performance commonly refers to activities on proscenium stage. Explosion of that narrow notion of performance by delving into scholarship from young field of performance studies, which draws on disciplines of anthropology, cultural studies, gender studies, linguistics, postcolonial theory, and sociology. Exploration in studio of concept of performing by creating interdisciplinary performance works that engage with and amplify theories studied. P/NP or letter grading.

102. Seminar: Intercultural and Interdisciplinary Performance. (4) Seminar, four hours. Enforced requisite: course 101. Recent discussions of multiculturalism have demanded broadened literacy in society in general and 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 Communities. (5) Lecture, four hours. Enforced requisite: course 85. Introduction to theoretical and practical understandings of field of community arts by local artists and for multiple publics. Review of relevant issues in field and exploration of roles of artists and arts organizations in struggles for social change, representation, and community building. Through national and international examples, exploration of art works that emphasize participation of citizens in community-based and culturally relevant performance, art, and exhibitions. Examination of processes of creative thinking, community involvement, collaborative enterprise, research, and education in community arts. Letter grading.


114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected community-based or theatrical work. May be repeated for credit without limitation. P/NP grading.

120. Selected Topics in Cultural Studies. (4) Lecture, three hours. Designed for juniors/seniors. Selective topics in interdisciplinary artist and performance in cultural and historical context. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit without limitation. P/NP or letter grading.

121. Ethnography and Performance. (4) Lecture, four hours; outside study, eight hours. Survey of some ways that ethnography and performance interrelate, as well as development of some preliminary approaches to effectively document performance events. Reading of ethnographies of performances, as well as consideration of how performances can work ethnographically. P/NP or letter grading.

122. Introduction to Folklore. (4) Lecture, four hours; studio, course 85. Survey of various methods and approaches to their identification, description, and analysis, including their historical and social significance. Introduction to expressive behavior of folk groups from throughout world and comparison through readings, lectures, film, and fieldwork, with attention to artistic, religious, and other traditions in relation to evolving popular culture. P/NP or letter grading.

C123. Arts of Identity: Survey of Expressive Cultures. (4) 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 C223. P/NP or letter grading.

124. Introduction to Field-Based Research Methods. (5) (Formerly numbered 21.) Lecture, three hours; fieldwork, two hours. Introduction to methods, techniques, and issues in conducting field-based research, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sampling, checks and controls, fieldwork, interviewing. Includes articulates as not only tangible and impersonal outcomes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exercises, students learn how to design fieldwork projects and proposals, prepare consent forms and deal with ethical issues, observe behavior, construct questionnaires, interview, use audiovisual documentation, and manage and present data. P/NP or letter grading.
M125A. Beyond Mexican Mural: Beginning Murals and Community Development. (4) (Same as Art M186B and Chicana and Chicano Studies M186A.) Studio/lecture, four hours. Corequisite: course M125AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

M125C. Beyond Mexican Mural: Advanced Murals and Community Development. (4) (Same as Art M186C and Chicana and Chicano Studies M186C.) Studio/lecture, six hours. Requisites: courses M125B, M125BL. Corecourse: course M125CL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

M125L-M125BL-M125CL. Beyond Mexican Mural: Murals and Community Laboratory. (4-2-2) (Same as Art M186AL-M186BL-M186CL and Chicana and Chicano Studies M186AL-M186BL-M186CL.) Corequisite: course M125AL, which is requisite to M125CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory tech support, it offers instruction as students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M125AL. Beginning. Laboratory, four hours. Corequisite: course M125A; M125BL, Intermediate. Laboratory, four hours. Requisites: courses M125A, M125AL. Corequisite: course M125CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory tech support, it offers instruction as students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M125CL. Advanced. Laboratory, two hours. Corequisite: course M125C.

M125B. Beyond Mexican Mural: Intermediate Murals and Community Development. (4) (Same as Art M186B and Chicana and Chicano Studies M186B.) Studio/lecture, four hours. Requisites: courses M125A, M125AL. Corequisite: course M125BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

M125. Whose Monument Where: Course on Public Art. (4) (Same as Art M195 and Chicana and Chicano Studies M195.) Lecture, six hours. Requisites: courses M125A, M125B, or M125C. Examination of public monuments in U.S. as basis for cultural interpretation. American Studies emphasizes perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is “public,” what is “public space” at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.


C130. Space and Dance. (4) (Same as Architecture and Urban Design M130.) Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective and with performance emphasis. Examination of urban human interactions and their created environments. Emphasis on “common,” “ordinary,” “anonymous,” or “vernacular” nonbuilt and built environments, which are used by members of “traditional,” “transitional” communities around world. P/NP or letter grading.

C131. Folk Art and Aesthetics. (4) 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.

C132. Narrative and Oral Performance. (4) Lecture, four hours. Survey of concepts of story as text versus narrating as oral performance, studies of individual narrators, how stories are composed in performance, interaction of narrator and audience, how place and experience become embodied in narratives, modes of representing oral narrating, and politics of stories and oral performance. P/NP or letter grading.

C133. Textiles of World. (4) Lecture, four hours; discussion, one hour; laboratory, one hour. How cloth and clothing is used as a way of expressing oneself 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.


C135. African Popular Arts. (4) Lecture, three hours. Introduction to African oral traditions 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.

M136. Culture of Aesthetics. (4) (Same as Anthropology M142R and Ethnomusicology M130.) Lecture, three hours. Requisites: course 20 or Anthropology 93 or Ethnomusicology 20A or 20B or 20C. Residency requirement. Focus on indented-shaped as art form in 20th century. Listening to and interacting with professional musicians who answer questions and give musical demonstrations. Analysis of aesthetic and ideological preferences of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

C139. Afro-Caribbean Ritual Arts: Vodou and Santeria. (4) Lecture, three hours. Designed for juniors/seniors. Ethnography of diaspora African religions, including Vodou, Santeria, and Candomble. Lectures, readings, and video material focus on performances and removals that are disruptive life-cycle changes that have potential to promote self-regeneration or self-fragmentation and that are accompanied by dramatic transformative devices. Concurrently scheduled with course C239. P/NP or letter grading.

C140. Women Healers, Ritual, and Transformation. (4) Same as Gender Studies C143. Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Examination of role of women healers, historically and within contemporary culture-specific contexts. Exploration of psychological functions served by and interaction of slate and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM240. P/NP or letter grading.

C141. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calen
drical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions and their Old World antecedents. Topics include carnival and carnivalesque and politics of celebration. Concurrently scheduled with course C241. P/NP or letter grading.

C142. Dance as Healing and Therapy. (4) Lecture, two hours; laboratory, two hours; outside study/re

143A. Introduction to Museology: Museum Collections and Administration. (5) Lecture, six hours. Introduction to history and functions of museum trac
ting development to present. Collection, organization, management, and conservation of objects and legal and ethical issues surrounding these practices. P/NP or letter grading.


143C. Introduction to Museology: Selected Topics. (4) Seminar, six hours; individual study, six hours. Seminar pursues projects in museum institutions, working with staff members and museum directors to produce papers on contemporary issues in museums. For example, one student might work under one director to develop a large-scale project while another works on current but emerging issues as they pertain to contemporary museums, following suggested reading list. P/NP or letter grading.

144. Make Art/Stop AIDS. (5) Lecture, four hours; studio, two hours. Can arts save lives? That is central question posed here in relation to global AIDS epi
demic. Working in close connection with public health and epidemiology, exploration of arts as powerful effec
tive tool in AIDS prevention and treatment efforts. Review of literature of African, Caribbean, and Latin American murals that emerged in late 1980s in U.S. and application of that literature to international hot spots such as India, China, South Africa, and Brazil. Collaborative theory-in-action projects. P/NP or letter grading.

C145. Curating Cultures. (4) Lecture, three hours. Exploration of politics and poetics of exhibiting non-Western arts and cultures. Series of provocative case studies with special guest speakers addressing theoretical and historical questions of evidence, collecting, and presentation of objects and works of art. Concurrently scheduled with course C245. P/NP or letter grading.

146. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for ju
niors/seniors. Opportunity to analyze and engage with intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key words as ideology, aesthetics, theory, art, politics, intellectual property, and intellectual issues as they pertain to contemporary museums, following suggested reading list. P/NP or letter grading.

147. Arts and Healing. (4) Lecture, four hours. In
disciplinary, contemporary arts-based model of healing applicable to persons leading Western mod
ernist lifestyles and coping with two kinds of social cri
ses during their lifetimes: (1) developmental transi
tions that are disruptive life-cycle changes that have potential to promote self-regeneration or self-frag
mentation and (2) external catastrophes that are situ
tional catastrophic events that evoke great terror and trigger fears of annihilation and chaos, but if success
fully negotiated, have potential to promote revitalized sense of self, greater compassion for others, and re
stored sense of trust and hope in humanity. Concurrently scheduled with course C247. P/NP or letter grading.

C148. Dance as Healing and Therapy. (4) Lecture, two hours; laboratory, two hours; outside study/re
search, eight hours. Designed for juniors/seniors. In
troduction to historical, theoretical, methodological, and ethical considerations in practice of dance as healing and therapy. Concurrently scheduled with course C248. Letter grading.

C150. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly lo
cate ethnographic method as key component of
cross-cultural understanding. Examination of categori- cal notions of insider and outsider while also developing various perspectives on performed acts of identity formation. Concurrently scheduled with course C250. P/NP or letter grading.


C152. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gen- der, religion, class, and nation? Theories and case studies from around world permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visibility and liberation. Concurrently scheduled with course C157. P/NP or letter grading.

C155. Self and Culture. (4) Lecture, two hours; labo- ratory, two hours; outside study, eight hours. De- signed for juniors/seniors. Examination of critical de-velopmental processes and situational factors contrib- uting to sense of self and emergence of creativity and subjective relatedness in different cultural contexts. Concurrently scheduled with course C255. P/NP or letter grading.

C156. Frida Kahlo: Creation of Cultural Icon. (5) Lecture, four hours. Examination of life of renowned Mexican artist Frida Kahlo in light of (1) Mexico's political, religious, and social history that gave rise to mes- titizaje, the melding of two social conditions that strongly influenced construction of her mestiza and gender identity, as well as her revolutionary political ideals, (2) obstacles that 20th-century female artists living in patriarchal societies had to confront, (3) way her significant attachments influenced her construc- tion of subjective sense of self and kinds of artwork she produced, (4) transcendent and self-regulatory functions her self-portraits served in maintaining her emotional equilibrium, (5) conversion of Kahlo's image after her death into cultural icon by culturally dis- enfranchised groups, and (6) psychosocial conditions and processes that are negotiated through cultural re- presentations and景观. Concurrently scheduled with course C256. P/NP or letter grading.

C158. Theorizing Arts Activism. (4) Seminar, three hours. Historianizing and theorizing of arts activism to provide basis for critical analysis, creation, and protest. Readings include theoretical texts and current performance histories. Consideration of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts ac- tivist projects organized by seminar members sup- ported and encouraged. Concurrently scheduled with course C258. P/NP or letter grading.

C159. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts- and health- based methodologies in pursuit of improved health outcomes, using examples from international projects created by UCLA Art and Global Health Center. Readings include texts by artists and arts scholars and articles from public health and medical literature. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course C259. P/NP or letter grading.

160. Performing Sexual Health: UCLA Sex Squad. (4) Seminar, three hours. Exploration of activist sexual health subcultures as it has been used both lo- cally and globally. Examination specifically of how hu- mor, personal narrative, and nonjudgmental pro-sex approaches have been utilized to open empowering and educational dialogues about sexual health and for diverse range of communities. Intensive training on sex, sexuality, HIV/AIDS, and powerful history of art- ists’ interventions to open urgent dialogues on these taboo topics. P/NP or letter grading.

C164. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic ap- proaches to writing about arts, with eye toward shaping critique of public writing practices and putting that knowledge into practice. Exploration of (and venues for) writing that reenact power differen- tial between art makers and commentators. Con- curringly scheduled with course C264. P/NP or letter grading.

C168. Beyond Academia: Making Art in Real World. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Focus on under- standing bureaucratic structures and regional histo- ries conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course C268. P/NP or letter grading.

170. Art and Production. (1) Laboratory, three hours. Enforced course: course 70. Further development and application of technical and administrative support practices in producing events in world arts and cul- tures, including but not limited to theatrical support and planning and production of events that can be re- peated for credit without limitation. P/NP grading.

C173. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for seniors. Emphasis on production of music, in search of 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 collabor- ate with fellow students in creative efforts and in pre- sentations of research results. Concurrently sched- uled with course C273. P/NP or letter grading.

174A. Projects in World Arts and Cultures. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, pro- duction, and media. May be repeated for credit. P/NP or letter grading.

174B. Projects in World Arts and Cultures. (4) Laboratory, six hours. Individualized major projects in choricography, performance, cultural studies, produc- tion, and media. May be repeated for credit. P/NP or letter grading.

177SL. Taking Action: Arts Practice and Commu- nity Service. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 103. Designed for juniors/seniors enrolled in a second term for world arts and cultures through service projects designed by students in collaboration with selected community or- ganizations and institutions. Reflection on impact of service on community, the student, and the world. May be repeat- ed once for credit. P/NP or letter grading.

178. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours. De- signed for juniors/seniors. Private or semiprivate in- struction in one world arts practice with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for max- imum of 24 units. P/NP grading.

C180. Video Production in Arts. (4) Lecture, one hour; laboratory, three to 12 hours. Fundamentals of video production: conceptualization, field recording (cam- era, lighting, sound, coverage), and editing (organiz- ing raw footage, constructing program, masterfin- ished tape). Emphasis alternates quarterly between ethnographic documentary and dance/choroerography. May be repeated once for credit. Concurrently sched- uled with course C280. Letter grading.

181. Ethnographic Film. (4) Lecture, four hours. Survey of ethnographic film and video, with focus on stories of expressive culture. Emphasis on critical and comparative approaches to visual study of cul- ture, community, and identity. Letter grading.


C183. Film and Folklore. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to film criti- cism and folklore methodology. Topics include early examples of folklore on film, changing conceptions of folklore and uses of films about folklore, and exam- ples of films by, with, and for folklorists. Concurrently scheduled with course C283. P/NP or letter grading.


C185. Junior-Year Proposal. (1) Lecture, 90 minutes; outside study, 90 minutes. Enforced requisite: course 85. Limited to World Arts and Cultures majors. Development and execution of proposal (either senior focus or senior honors project) for senior-year study, with attention to exploring resources of department and University as a whole. May be repeated once for credit. P/NP grad- ing.

C186A-B. Senior Honors Projects in World Arts and Cultures. (5-5) Lecture, four hours; outside study, 11 hours. Enforced requisite: course 185. Course 186A is requisite to 186B. Limited to senior World Arts and Cultures majors. Application of concepts and content from interdisciplinary major to individual projects. Manuscript(s) may involve theoretical, eth- nographic, and performance approaches. Lecture/ seminar format with World Arts and Cultures faculty during first term, faculty-directed presentations of indi- vidual projects during second term. P/NP or letter grading.

195. Community or Corporate Internships in World Arts and Cultures. (2 to 4) Tutorial, six hours. Internship in supervised setting in community agency or business. Students meet on regular basis with in- structor and provide periodic reports of their experi- ence. May be repeated for maximum of 8 units. Indi- vidual contract with supervising faculty member re- quired. P/NP or letter grading.

C199. Directed Research in World Arts and Cul- tures. (2 to 4) Tutorial, two hours. Preparation: 3.0 grade-point average in major. Limited to juniors/se- niors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated once for a maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

C200. Theories of Culture. (4) Seminar, three hours; outside study, nine hours. Introduction to history of culture concept in arts, humanities, and social scienc- es. Analysis of contemporary debates concerning ownership and use of word “culture” and critical eluci- dation of study of culture. Concurrently scheduled with course C200. P/NP or letter grading.

C201. Theories of Performance. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of classic and contemporary studies of per- formance and related aesthetic practices. Familiariza- tion with ways in which “performance” is defined and deployed by scholars working in disciplines of anthrop- ology, dance, folklore, linguistics, literature, musicon- ology, philosophy, sociology, and theater. S/U or letter grading.

C202. Research Methodologies. (4) Three to (Not same as course 202 prior to Fall Quarter 2009.) Seminar, three hours; outside study, nine hours. Hands-on course designed to help graduate students familiarize with many developed qualitative research methods and designs they encounter in their work. Identification and creation of research problems, development of
203. Proseminar: Dance Studies. (4) Seminar, three hours; outside study, nine hours. Survey of theoretical issues and problems in study of dance and body movement in cultural, social, and historical context. S/U or letter grading.

204. Theories of Corporeality. (4) Seminar, three hours; outside study, nine hours. Cross-cultural and interdisciplinary perspectives on human body. Topics include representations of body, body symbolism, embodiment of identity (including gender, ethnicity, and class identities), and analysis of dance and other somatic modes of performance. 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. Consideration of particular folk genre, culture area, historical period, and/or theoretical issue in field of folklore. May be repeated for credit. S/U or letter grading.

207. Ethnography of Performance. (4) Formerly numbered 202.) Seminar, three hours; outside study, nine hours. Survey of methods and methodological issues in ethnographic study of performance in cultural context. Focus on participatory observation, oral history and interview techniques, performative dimensions of ethnographic research, ethics, and politics of ethnographic representation. S/U or letter grading.

210. Ethnography of and as Colonialism. (4) Seminar, three hours. Beginning with 1550 debates over Indian humanity and ranging to contemporary scholarship about and by indigenous peoples, focus on intersections between race, violence, and historical experience in Americas. Exploration of relationship between 18th-century reasoning about race and postmillennial, Western, and academic practices of writing history. Development of critical stance on utility of postcolonial theories as such perspectives bear on anthropological and historical studies of indigenous religio. Regions include southwest Colombia, Orinoco Delta, and Mexico, and several examples throughout U.S. southwest, plains, and northeast. S/U or letter grading.

216. Analyzing Narrative and Oral Performance. (5) Lecture, four hours; outside study, eight hours. Exploration of ways of documenting individual narrators and interpreting their stories and repertoires; how narrators conceptualize and perform narrative discourse and situated event on both narrative and story, how experiences and values are communicated through narrating, 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 cultural contexts. May be repeated for credit without limitation. S/U or letter grading.

223. Arts of Identity: Survey of Expressive Cultures. (4) 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 arts in cultural survival and transformation. Concurrently scheduled with course C123. S/U or letter grading.

229. Food Customs and Symbolism. (4) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to customs and traditions. Topics include gender, food and identity, food and its emotional significance, aversions and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course C129. S/U or letter grading.


CM240. Women Healers, Ritual, and Transformation. (4) Same as Gender Studies CM243.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of female healers, historically and within contemporary culture-specific contexts. Exploration of psychological functions served by rite of passage and healing rituals and ritual role of arts in healing troubled communities. Concurrently scheduled with course CM140. S/U or letter grading.

C241. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions and their Old World antecedents. Topics include carnival and carnavalesque and postmodern trends served by rites of passage and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM140. S/U or letter grading.

C242. Myth and Ritual. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Myths make sense of world and its peoples, and rituals embody and activate myths through dramatic transformative devices. Concurrently scheduled with course C142. S/U or letter grading.

C244. Folk Medicine. (4) Seminar, three hours; outside study, nine hours. Exploration of fundamental concepts, analytical approaches, and recurrent questions in research on folk or traditional medicine, including categories and motivations of healers, varieties of illness, and treatment modalities such as use of faith and plant-based remedies, along with issues about persistence, efficacy, and development of culturally sensitive healing practices for letter grading.


C246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Opportunity to reflect on artists and intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key-words as ideology, aesthetics, theory, art, politics, intervention, inspiration and myth. Concurrently scheduled with course C146. S/U or letter grading.

C247. Arts and Healing. (4) Lecture, four hours. Interdisciplinary, contemporary arts-based model of healing applicable to persons leading Western modernist lifestyles and coping with two of key social crisis during their lifetimes: (1) developmental transitions that are disruptive life-cycle changes that have potential to promote self-regeneration or self-fragmentation and (2) external transitions that are situational catastrophic events that evoke great terror and trigger fears of annihilation and chaos, but if successfully negotiated, have potential to promote revitalized sense of self, greater compassion for others, and re-stored sense of trust and hope in humanity. Concurrently scheduled with course C147. S/U or letter grading.

C248. Dance as Healing and Therapy. (4) Lecture, two hours; laboratory, three hours; outside study, eight hours. Designed for graduate students. Introduction to historical, theoretical, methodological, and ethical considerations involved in practice of dance as healing. Concurrently scheduled with course C148. Letter grading.

C250. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method as key component of cross-cultural understanding. Examination of categor-
log), (2) transfer students exempt on the basis of their transcript evaluation (see the Undergraduate Study Section of this catalog), and (3) graduate students who hold a bachelor’s or higher degree from a university in which English is the medium of instruction (see International Applicants in the Graduate Study Section of this catalog).

Based on the results of the AWPE or the ESPE, students are either exempt from the ESL requirement or are required to take one or more courses in the ESL series. The required sequence for undergraduate students is English as a Second Language 33B, 33C, and/or 33G; each course must be completed 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 33B and/or 33G; each course must be completed with a grade of C or better if taken for a letter grade, or S if taken on an S/U basis (C or an Unsatisfactory grade is not acceptable).

English as a Second Language

Lower Division Courses

32. Conversation and Interaction for Academic Purposes. (4) Lecture, four hours. Development of oral skills in preparing nonnative speakers of English to improve critical listening skills, participate in class discussions, make oral presentations before audience, ask and answer questions, participate appropriately in conversations members of academic community, and improve through self-evaluation of speech. P/NP (undergraduates), S/U (graduates), or letter grading.

33A. Introductory English for Academic Purposes. (4) Lecture, 10 hours. Requisite: proficiency demonstrated on English as a Second Language Placement Examination. Displaces 8 units on student’s Study List but yields only 4 units of credit toward degree. Intensive instruction in structure of English, with focus on vocabulary building, listening and speaking skills, and basic composition techniques. To satisfy English as a Second Language requirement, students must select letter grading. P/NP (undergraduates), S/U (graduates), or letter grading.

33B. Intermediate English for Academic Purposes. (4) Lecture, five hours. Requisite: course 33A (C or better) or proficiency demonstrated on English as a Second Language Placement Examination. Emphasis on reading comprehension, vocabulary development, and composition techniques, with additional work on structure and oral skills. To satisfy English as a Second Language requirement, students must select letter grading. P/NP (undergraduates), S/U (graduates), or letter grading.

33C. Advanced English for Academic Purposes. (4) Lecture, five hours. Requisite: course 33B (C or better) or proficiency demonstrated on English as a Second Language Placement Examination. Emphasis on academic reading, writing, study skills, and lecture comprehension. To satisfy English as a Second Language requirement, students must select letter grading. P/NP (undergraduates), S/U (graduates), or letter grading.

33G. Advanced English for Academic Purposes for Graduate Students. (4) Lecture, five hours. Requisite: course 33B (C or better) or proficiency demonstrated on English as a Second Language Placement Examination. Designed to improve academic skills of advanced ESL graduate students, using authentic graduate-level materials. Emphasis on development of academic skills necessary for success in graduate school: (1) reading skills such as reading research in academic disciplines, rate and comprehension, and vocabulary development, (2) writing skills such as summarizing and critiquing and other discipline-specific assignments, academic listening skills, and (3) academic speaking skills. Participation in discussions and making presentations. Grammar incorporated as needed, especially in regard to writing. S/U or letter grading.

34. Public Speaking for Academic Purposes. (4) Lecture, four hours. Designed to help nonnative speakers of English communicate effectively in academic and professional settings. Development of oral skills that are part of everyday life. Emphasis on ideas that are discussed, lead discussions, lead dialogue. To satisfy English as a Second Language requirement, students must select letter grading. P/NP (undergraduates), S/U (graduates), or letter grading.

35. Approaches to University Writing 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 Analytical Writing Placement Examination. Comprehension skills for ESL students, with focus on writing process, grammatical structures key to clear and effective writing, mechanics of writing, and practice with major forms of academic writing. Additional emphasis on academic reading skills. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

36. Composition, Rhetoric, and Language 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, grammatical structures found in academic writing. Special attention to individual research, grammatical structures, and style. Satisfies Writing I 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 complex academic readings. Additional emphasis on academic reading skills. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

38A. Pronunciation: Stress and Intonation in English. (4) Lecture, four hours. Designed to help nonnative speakers of English communicate effectively in social as well as classroom/academic settings and improve critical listening skills. Emphasis on the three important aspects of pronunciation: stress, rhythm, and intonation. P/NP (undergraduates), S/U (graduates), or letter grading.

38B. Pronunciation: Sound System of English. (4) 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 sounds of American English and the 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.

39A. Intensive Language and Fluency Training for International Teaching Assistants. (4) Lecture, six hours. Recommended for individuals whose Test of Spoken English (TSE) score is 40 or below or whose UCLA Test of Oral Proficiency (TOP) score is 6.3 or below. Designed to aid international graduate students who wish to become teaching assistants, with focus on development of general communicative competence, 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 Test of Spoken English (TSE) score is 40 or 45 or whose UCLA Test of Oral Proficiency (TOP) score is 7.0 or below. Designed to help nonnative speakers of English communicate effectively as teaching assistants, with focus on presentation skills, classroom language fluency, and pronunciation accuracy. P/NP (undergraduates), S/U (graduates), or letter grading.

90C. Presentation and Discussion-Leading Skills for International Teaching Assistants. (4) Lecture, four hours. Recommended for individuals whose Test of Spoken English (TSE) score is 45 or above or whose UCLA Test of Oral Proficiency (TOP) score is 7.0 or above. Designed to help nonnative speakers of English communicate effectively as teaching assistants. Activities include interactive teaching demonstration and leading discussions, emphasis on self, peer, and instructor feedback. P/NP (undergraduates), S/U (graduates), or letter grading.

80. Language in Globalizing World: Second Language Interaction in Everyday Life and Academia. (4) Lecture, four hours. Enforced corequisite: Applied Linguistics 80. Designed to provide students whose first language is not English with linguistic and cultural resources to succeed in rigorous content course where students study various intercultural phenomena observed in second language communication. P/NP or letter grading.

97A. Variable Topics in English as a Second Language. (4) Lecture, four hours. Specialized topics in English as second language or English for academic purposes. Emphasis varies according to topics covered and/or audience to whom course is directed. May be repeated for credit with topic change. Offered in summer only. P/NP (undergraduates), S/U (graduates), or letter grading.

97B. Variable Topics in English as a Second Language. (2) Lecture, two hours. Enforced requisite: course 33B or proficiency demonstrated on English as a Second Language Placement Examination. Specialized topics in English as second language or English for academic purposes. Emphasis varies according to topics covered and/or audience to whom course is directed. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.

Upper Division Courses

101. Introduction to Language Learning and Language Teaching. (4) Lecture, four hours. Enforced corequisite: Applied Linguistics 101. Designed to provide students whose first language is not English with language support in areas of academic reading, writing, listening, and speaking. Exploration of skills and conditions involved in successful second and foreign language learning; application of this knowledge in development of framework for second and foreign languages. P/NP or letter grading.

106. Advanced Composition for ESL Students. (4) Lecture, four hours. Requisites: course 36 (C or better) or proficiency demonstrated on English as a Second Language Placement Examination, and appropriate Composition Placement Test score. Focus on production of fully developed, stylistically sophisticated expository and argumentative essays based on complex academic readings. Additional emphasis on grammatical structure and style. P/NP (undergraduates), S/U (graduates), or letter grading.

107. Academic Reading and Vocabulary. (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. Literature and Language. (4) Lecture, four hours. Requisite: course 33C or 35 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Students study various interactional phenomena observed in second language communication, P/NP or letter grading.
English Composition

Lower Division Courses

A. Introduction to University Discourse. (No credit) Lecture, five hours. Enforced requisite: appropriate score on Analytical Writing Placement Examination. Displaces 4 units on student's Study List but yields no credit toward degree. First course in reading universi- ty-level texts and framing written responses that em- ploy range of rhetorical strategies from paraphrase to analysis. Emphasis on revision, developing syntactic variety and vocabulary, and editing for grammar and style. Completion of course with grade of C or better or demonstration of minimum competence on Analytical Writing Placement Examination is required to continue in English writing. Letter grading.

2. Approaches to University Writing. (5) Lecture, four hours. Enforced requisite: course A with grade of C or better or appropriate score on Analytical Writing Placement Examination. Second course in university-level discourse, with analysis and critique of universi- ty-level texts. Emphasis on revision for argumentative coherence and effective style. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

2. Approaches to University Writing. (5) Lecture, six hours. Enforced requisite: appropriate scores on Analytical Writing Placement Examination and En- glish as a Second Language Placement Examination. Second course in university-level discourse, with analysis and critique of university-level texts. Empha- sis on strategies for developing coherent and well-ar- gued pieces of academic writing and for achieving ef- fective and clear style in academic prose. Completion of course with grade of C or better satisfies Entry-Lev- el Writing and English as a Second Language re- quirements. Letter grading.

3. English Composition, Rhetoric, and Language. (5) Lecture, three hours. Enforced requisites: satisfac- tion of Entry-Level Writing requirement, course 2 or English as a Second Language 35 (C or better). Rhetor- ical thinking and writing about issues important to academic inquiry and responsible citizen- ship. Minimum of 15 to 20 pages of revised text re- quired in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

5.W. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours. Enforced requisite: course 3 or 3H or English as a Second Language 36. Use of analy- sis of literary works within cultural context to engage students in critical thinking and writing about issues important to academic inquiry and responsible citizen- ship. Minimum of 15 to 20 pages of revised text re- quired in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

6W. Language, Culture, and Discourse. (5) Lecture, four hours. Enforced requisite: course 3 or 3H or English as a Second Language 36. Study of structure and use of English and how it reflects social structure and cultural values. Readings in linguistic analysis, language acquisition, sociolinguistics, and pragmatics provide foundation as students analyze authentic lan- guage as it is used in public and private contexts. Min- imum of 15 to 20 pages of revised text required. Satisfies Writing II requirement. Letter grading.


50. Writing Workshop. (2) Lecture, five hours. De- signed for any students who have not yet enrolled in their first full term at UCLA. Introduction to demands of university-level writing and English Composition that govern it. Writing techniques developed to ad- dress specific writing tasks such as timed examina- tion, application essay, effective e-mail, and college paper. Offered in summer only. P/NP or letter grading.

Upper Division Courses

100W. Interdisciplinary Academic Writing. (5) Lec- ture, four hours. Requisite: course 3 or 3H or English as a Second Language 36. Designed for sopho- more-researchers; academic writing suitable for both lower and upper division students that helps them develop academic papers with range of complexity and length. Focus on conventions of ac- ademic prose and genres. Assignments include common forms of academic writing such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Requi- sites: satisfactory Writing requirement; seniors, course 3 or 3H. Students must be concurrently en- rolled in course offered in conjunction with course 110 (consult Schedule of Classes for course so designat- ed) to complete writing materials from adjunct course and reflect and develop analytic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Requisite: satisfac- tion of Entry-Level Writing and English Composition requirements. Survey of topics in English linguistics of special interest to elementary school teachers. Sub- jects include approaches to English grammar; lan- guage acquisition and development; language atti- tudes; regional and social dialects of American En- glish; bilingual education and instruction of English language study to teaching of reading, writing, spell- ing, and literature. P/NP or letter grading.


131A-131D. Specialized Writing. (4 each) Lecture, four hours. Requisite: satisfaction of Entry-Level Wor- ting requirement; course 3. Sequence in practi- cal writing and editing ability specifically designed to prepare students for careers. Analysis of prose and literary styles necessary to variety of writing in profes- sional, nonacademic fields combined whenever pos- sible with practical experience in variety of writing in- ternships and training in wide range of editorial skills. In Progress (136A) and P/NP or letter (136B, 136C) grading.

175. Apprenticeship in Composition Tutoring. (2) Seminar, two hours. Enforced requisite: satisfaction of Writing II requirement. Composition Peer Learning Facilitators (PLFs) who work in Undergraduate Writ- ing Center provided writing in composition and peer learning methodologies. Overview of language, writing, and literacy needs of diverse col- lege-age writers, including developing writers, multi- lingual writers, and nonnative English-speaking (NNS) writers. Provides opportunity to reflect critically on theoretical and practical frameworks for tutoring to which students have been introduced. PLFs receive guidance in their tutoring process via observations by course instructor and their peers. P/NP or letter grad- ing.

195. Community or Corporate Internships in En- glish Composition. (1 each) Lecture, to be arranged. Requi- sites: course 3 or 3H, satisfaction of Writing II re- quirement. Limited to juniors/seniors. Internship in sup- ervised setting in community agency or business. Supervised student on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervis- ing faculty member required. P/NP or letter grad- ing.

199. Directed Research or Senior Project in En- glish Composition. (1 each) Tutorial, to be arranged. Requisite: course 3 or 3H. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or proj- ect required. May be repeated for credit. Individual contract required. P/NP or letter grading.
Graduate Courses

300. Teaching English. (4) Lecture, four hours. Required 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) Seminar, two hours. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Training and mentoring, with focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495B. Supervised Teaching Preparation. (2) Seminar, 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) Seminar, two hours. Requisite: course 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.

495D. Supervised Teaching Preparation. (2) Seminar, two hours. Requisite: course 495A. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Training and mentoring, with focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495E. Supervised Teaching Preparation. (2) (Same as Engineering M495B.) Seminar, one hour. Requisite: course M495E. Required of all teaching assistants for Engineering writing courses not exempt by appropriate departmental or program training. Training and mentoring, with focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495F. Supervised Teaching Preparation. (2) (Same as Engineering M495E.) Seminar, two hours. Required of all teaching assistants who are assigned to English as a second language (ESL) multiskills and composition courses. Focus on pedagogical issues specifically related to academic reading and composition skills for ESL students, including course design, assessment of student writing, conferencing, and specialized problems that may occur in teaching English as a second language courses. S/U grading.
APPENDIX A: REGULATIONS AND POLICIES

Nondiscrimination
The University of California, in accordance with applicable Federal and State Laws and University Policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy and childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The University also prohibits sexual harassment. 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) 206-6985.

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 Monroe Gorden, ADA and 504 Compliance, A239 Murphy Hall, UCLA, Box 951405, Los Angeles, CA 90095-1405, voice (310) 825-1514, TTY (310) 206-3349. See http://www.ada.ucla.edu.

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/coordrew/uocpolicies/aos/to.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 make themselves aware of and comply with the law, and with University and campus policies and regulations. While many of UCLA’s policies and regulations parallel federal, state, and local laws, UCLA’s standards may be set higher. The University of California Policies Applying to Campus Activities, Organizations, and Students (UC Policies) have been incorporated into the UCLA Student Conduct Code either by adapting or inserting verbatim the language of the policies. The complete University of California Policies Applying to Campus Activities, Organizations, and Students is available at http://www.ucop.edu/ucophome/coordrew/uocpolicies/aos/to.html. Students may contact the Office of the Dean of Students, Office of Ombuds Services, or Student Legal Services for advice concerning these policies.

A. Jurisdiction
The University has jurisdiction over student conduct that occurs on University property, or in connection with official University functions whether on or off University property. Although 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 has discretion to exercise jurisdiction over conduct that occurs off campus and that would violate student conduct and discipline policies or regulations if the conduct had occurred on campus when (1) the alleged misconduct indicates the student poses a threat to the safety or security of any member(s) of the University community or (2) the alleged misconduct involves academic work or the forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

Specifically, the University may choose to exercise jurisdiction over off-campus incidents under alternative A.1 above where the alleged misconduct involves

a. Conduct that threatens the health or safety of any person, including oneself. This conduct includes, but is not limited to, physical assault, sexual assault, sexual misconduct, domestic violence, threats that cause a person reasonably to be in sustained fear for one’s own safety or the safety of her or his immediate family, incidents involving the use or display of a weapon likely to cause great bodily harm, and intoxication or impairment through the use of alcohol or controlled substances to the point one is unable to exercise care for one’s own safety

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 160.00 et seq. of the University of California Policies Applying to Campus Activities, Organizations, and Students)

d. Participation in hazing or any method of initiation or preinitiation into a campus organization or other activity engaged in by the organization or members of the organization at any time that causes, or is likely to cause, physical injury or personal degradation or disgrace resulting in psychological harm to any student or other person

In determining whether or not to exercise off-campus jurisdiction in cases under alternative A.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 information, 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 upon by any student charged under this section to create any rights, substantive or procedural, or as a basis for a challenge to the exercise of the University’s jurisdiction.

B. Types of Misconduct
Students may be disciplined for violations or attempted violations (including aiding, abetting, facilitating, or participating in the planning of an act that would be in violation of the UCLA Student Conduct Code, whether or not the individual who carries out that act is a student). Violations include the following types of misconduct:

102.01: Academic Dishonesty. All forms of academic misconduct, including but not limited to cheating, fabrication or falsification, plagiarism, multiple submissions, or facilitating academic misconduct. For the purposes of the UCLA Student Conduct Code, the following definitions apply:

- **102.01a: Cheating.** Cheating includes, but is not limited to, the use of unauthorized materials, information, or study aids in any academic exercise; the alteration of any answers on a graded document before submitting it for regrading; or the failure to observe the expressed procedures or instructions of an academic exercise (e.g., examination instructions regarding alternate seating or conversation during an examination).

- **102.01b: Fabrication.** Fabrication includes, but is not limited to, falsification or invention of any information or citation in an academic exercise, including fabrication or falsification of research.

- **102.01c: Plagiarism.** Plagiarism includes, but is not limited to, the use of another person’s work (including words, ideas, designs, or data), without giving appropriate attribution or citation. This includes, but is not limited to, representing, with or without the intent to deceive, part or all of an entire work obtained by purchase or otherwise, as the student’s original work; the omission of or failure to acknowledge the true source of the work; or representing an altered
102.01d: Multiple Submissions. Multiple submissions includes, but is not limited to, the re-submission by a student of any work which has been previously submitted for credit in identical or similar form in one course to fulfill the requirements of a second course, without the informed permission/consent of the instructor of the second course; or the submission by a student of any work submitted for credit in identical or similar form in one course to fulfill the requirements of a concurrent course, without the permission/consent of the instructors of both courses.

102.01e: Facilitating Academic Dishonesty. Facilitating academic dishonesty includes, but is not limited to, knowingly helping another student commit an act of academic misconduct (e.g., cheating, fabrication, plagiarism, multiple submissions).

102.01f: Coercion Regarding Grading or Evaluation of Coursework. Threatening personal or professional repercussions or discipline against an instructor to coerce the instructor to change a grade or otherwise evaluate the student’s work by criteria not directly reflective of coursework.

102.02: Other Forms of Dishonesty. Other forms of dishonesty, including but not limited to fabricating information or knowingly furnishing false information or reporting a false emergency to the University.

102.03: Forgery. Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

102.04: Theft, Damage, or Destruction of Property.

102.04a: Theft. Theft includes taking without expressed permission or, misappropriation of any property of the University or property of others while on University premises or at official University functions; or possession of any property that the student had knowledge or reasonably should have had knowledge was stolen.

102.04b: Damage or Destruction of Property. Damage or destruction of any University property or the property of others while on University premises or at official University functions.

102.05: Computer Misuse. Theft or abuse of University computers and other University electronic resources such as computer and electronic communications facilities, systems, and services. Abuses include, but are not limited to, unauthorized entry, use, transfer, or tampering with the communications of others; interference with the work of others and with the operation of computer or electronic communications facilities, systems, and services; or violations of copyright laws, whether by theft, unauthorized sharing, or other misuse of copyrighted materials such as songs, movies, software, photos, or text. Violation of the UCLA E-Mail Policy and Guidelines (available at http://www.adminpolicies.ucla.edu/app/Default.aspx?id=455), of the University of California Electronic Communications Policy (available at http://www.ucop.edu/ucophome/policies/ec), or of any other University acceptable or allowable use policy is also considered a violation of Section 102.05.

102.06: Unauthorized Use of University Resources or Name. Unauthorized entry to, possession of, receipt of, or use of any University services, equipment, resources, or properties, including the University’s name, insignia, or seal.

102.07: Violations of University Policy. Students may be subject to discipline for violation of any University policy.

102.07a: University Housing. Violations of policy regarding University-owned, -operated, or -leased housing facilities or other housing facilities located on University property.

102.07b: University Parking. Violations of policy regarding University parking services or University-owned or -operated parking facilities.

102.07c: University Recreation. Violations of policy regarding University recreation services, programs, or within University-owned or -operated recreation facilities.

102.07d: University Identification Card (BruinCard). Violation of policies, regulations, or rules governing use of official University identification cards, including manufacturing or possession of false identification cards, using another person’s BruinCard to obtain services or establish identity, facilitating the misuse of one’s BruinCard by another person to obtain services or establish identity, or other misuse of the BruinCard.

102.08: Conduct that Threatens Health or Safety. Conduct that threatens the health or safety of any person, including oneself. This includes, but is not limited to, physical assault, sexual assault, sexual misconduct, domestic violence, threats that cause a person reasonably to be in sustained fear for one’s own safety or the safety of her or his immediate family, incidents involving the use or display of a weapon likely to cause great bodily harm, and intoxication or impairment through the use of alcohol or controlled substances to the point one is unable to exercise care for one’s own safety.

102.09: Sexual Harassment. Student Employees. When employed by the University of California, and acting within the course and scope of that employment, students are subject to the University of California Policy on Sexual Harassment for employees (http://www.ucop.edu/ucophome/coordrev/policy/PP021006Policy.pdf). Otherwise, the applicable standard for sexual harassment by students is conduct that is so severe and/or pervasive, and objectively offensive, in that so substantially impairs a person’s access to University programs or activities that the person is effectively denied equal access to the University’s resources and opportunities.

In compliance with UCLA Procedure 630.1, cases involving allegations of sexual harassment must be either resolved by the dean or heard before the Student Conduct Committee within 60 days of the referral of the complaint. This deadline may be extended on approval from the vice chancellor of Student Affairs.

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 her or his safety, or the safety of her or his 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 is defined as conduct that is so severe and/or pervasive, and objectively offensive, and that so substantially impairs a person’s access to University programs or activities that the person is effec-
tively denied equal access to the University’s resources and opportunities.

Student and/or employee sexual harassment is governed by the University of California Policy on Sexual Harassment and the procedures for responding to sexual harassment. See Section 102.09.

Sanctions may be enhanced where an individual was selected for harassment because of the individual’s race, color, national or ethnic origin, citizenship, sex, religion, age, sexual orientation, gender identity, pregnancy, marital status, ancestry, service in the uniformed services, physical or mental disability, medical condition, or perceived membership in any of these classifications.

102.12: Hazing. Participating in, engaging in, or supporting hazing or any method of initiation or preinitiation into a campus organization or other activity engaged in by the organization or members of the organization at any time that causes, or is likely to cause, physical injury or personal degradation or disgrace resulting in psychological harm to any student or other person.

102.13: Obstruction or Disruption. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.

102.14: Disorderly Behavior. Engaging in disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly.

102.16: Failure to Comply. Failure to identify oneself to, or comply with directions of, a University official or other public official acting in the performance of her or his duties while on University property or at official University functions, or resisting or obstructing such University or other public officials in the performance of or the attempt to perform their duties.

102.17: Controlled Substances. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances (including medicinal marijuana), identified in Federal and State laws or regulations, which is unlawful or otherwise prohibited by, or not in compliance with, any University policy or campus regulations or being unable to exercise care for one’s own safety because one is under the influence of controlled substances. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given a controlled substance without her or his knowledge and permission.

102.18: Alcohol. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of alcohol which is unlawful or otherwise prohibited by, or not in compliance with, University policy or campus regulations, or being unable to exercise care for one’s own safety because one is under the influence of alcohol. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given alcohol without her or his knowledge and permission.

102.19: Destructive Devices. Possession, use, storage, or manufacture of explosives, fire-bombs, or other destructive devices.

102.20: Weapons and Replica Weapons.

102.20a: Weapons. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury is prohibited.

102.20b: Replica Weapons. Except as expressly permitted by University policy, possession, use, storage, or manufacture of replicas of firearms or other weapons is prohibited.

102.21: Violation of Disciplinary Conditions. Violation of the conditions contained in the terms of a disciplinary action imposed under the UCLA Student Conduct Code.

102.22: Violation of Interim or Emergency Suspension Conditions. Violation of the conditions contained in a written Notice of Interim or Emergency Suspension issued pursuant to Section IV of the UCLA Student Conduct Code.

102.23: Unauthorized Use or Sale of University Materials. Except as provided herein, no student shall give, sell, or otherwise distribute to others or publish any recording made during any course presentation without the written consent of the University and the instructor/presenter. This policy is applicable to any recording in any medium, including handwritten or typed notes.

Any distribution of a recording of a course presentation at UCLA that captures the actual sounds and/or images of that course presentation, in any medium, must consider not only the rights of the instructor and the University, but also those of other parties. Examples include the privacy rights of students enrolled in the course, the rights of guest lecturers, and the copyright interests in materials authored by others that are displayed or presented during the course presentation. In addition to the consent of the University and the instructor/presenter, it may be necessary to secure permission from these other parties before any recording, distribution, publication, or communication is legally permitted.

102.23a: Selling Academic Materials. Selling, preparing, or distributing for any commercial purpose academic materials, including but not limited to written, video, or audio recordings of any course unless authorized by the University in advance and explicitly permitted by the course instructor in writing. The unauthorized sale or commercial distribution of academic materials, including but not limited to recordings, by a student is a violation of the UCLA Student Conduct Code whether or not it was the student or someone else who prepared the notes or recordings. This policy is applicable to any recording in any medium, including handwritten or typed notes.

102.23b: Copying Course Notes. Copying for any commercial purpose handouts, readers, or other course materials provided by an instructor as part of a University of California course unless authorized by the University in advance and explicitly permitted by the course instructor or the copyright holder in writing (if the instructor is not the copyright holder). Students currently enrolled in a course may provide a copy of their own notes or recordings to other currently enrolled students for noncommercial purposes reasonably arising from participation in the course, including individual or group study.

102.23c: Commencement Tickets. Selling commencement tickets.

102.24: Misuse of University Property. Organizing or carrying out unlawful activity on University property.

102.25: Violations of Law. Students may be subject to discipline on the basis of a conviction under any federal, California state, or local criminal law, when the conviction constitutes reasonable cause to believe that the student poses a threat to the health or safety of any person, or to the security of any property, on University premises or at official University functions, or to the orderly operation of the campus.

102.26: Terrorizing Conduct. Conduct, where the actor means to communicate a serious expression of intent to terrorize, or acts in reckless disregard of the risk of terrorizing, one or more University students, faculty, or staff. Terrorizing means to cause a reasonable person to fear bodily harm or death, perpetrated by the actor or those acting under his/her control. Reckless disregard means consciously disregarding a substantial risk. This section applies without regard to whether the conduct is motivated by race, ethnicity, personal animosity, or other reasons. This section does not apply to conduct that constitutes the lawful defense of oneself, of another, or of property.

102.27: Unwanted Personal Contact. Contact (whether physical, verbal, written, face-to-face, telephonic, electronic, or by other means) that (1) a student knows or should know is unwanted, (2) is communicated directly to one or more specific students, faculty, or staff, (3) constitutes severe and/or pervasive, and objectively offensive, conduct, and (4) does not constitute speech protected by the First Amendment to the U.S. Constitution (e.g., speech in a public forum on a matter of public concern).

102.28: Expectation of Privacy. The following is prohibited:

Making a video recording, audio recording, taking photographs, or streaming audio/video of any person in a private location without that person’s knowledge and express consent.

Looking through a hole or opening, into, or otherwise viewing, by means of any instrumentalities, the interior of a private location without the subject’s knowledge and express consent.

Photographs and recordings made in private locations of sexual activity that contain nudity may not be posted online or otherwise shared or distributed in any manner without the
knowledge and express consent of all recorded parties, even if the photograph or recording was originally made with the knowledge and express consent of those parties.

Nudity means the absence of an opaque covering which covers the genitals, pubic hair, buttocks, perineum, anus, or anal region of any person or any portion of the breast at or below the areola thereof of any female person. Private locations are settings where the person reasonably expected privacy. For example, in most cases the following are considered private locations: residential living quarters, bathrooms, locker rooms, and personal offices. Private, nonpublic conversations and/or meetings include any communication carried on in circumstances that reasonably indicate that any party wants the communication to be confined to the parties, but excludes a communication made in a public gathering, or in any other circumstance in which the parties to the communication may reasonably expect that the communication may be overheard or recorded. Express consent is clear, unmistakable, and voluntary consent that may be in written, oral, or nonverbal form.

These provisions do not extend to public events or discussions, nor to lawful official law or policy enforcement activities. These provisions may not be utilized to impinge on the lawful exercise of constitutionally protected rights of freedom of speech or assembly.

**Sexual Assault and Sexual Misconduct**

UCLA does not tolerate sexual assault or sexual misconduct. Where there is probable cause to believe a student has committed a sexual assault or has engaged in sexual misconduct, disciplinary action will be pursued. Sanctions may include dismissal from the University.

**If a Person Has Been Sexually Assaulted**

Those who believe they are the victims of sexual assault should

1. **Immediately call the police department.** If possible, call the UCLA Police Department at (310) 825-1491 or 911.

2. **Get medical attention.** Campus police will provide transportation to the 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 Campus Assault Resources and Education (CARE) counselor** at Counseling and Psychological Services. CARE counselors have expertise in working with people who have been sexually assaulted. 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. Counselors are available to assist any UCLA student regardless of where or when the assault occurred. For assistance, contact Counseling and Psychological Services at (310) 825-0768 or go to 221 Wooden Center West and ask to speak to a CARE counselor.

2. **Contact the Rape Treatment Center** at Santa Monica UCLA Medical Center (310-319-4000) for free emergency medical treatment and counseling services. See http://www.911rape.org.

Caring assistance is available for persons who have been subjected to sexual assault or sexual misconduct. They are encouraged in the strongest terms to make a report.

**Harassment**

**Sexual Harassment**

The University of California is committed to creating and maintaining a community where all persons who participate in University programs and activities can work and learn together in an atmosphere free from all forms of harassment, exploitation, or intimidation. Every member of the University community should be aware that the University is strongly opposed to sexual harassment and that such behavior is prohibited both by law and by University policy. The University will respond promptly and effectively to reports of sexual harassment and will take appropriate action to prevent, correct and, if necessary, discipline behavior that violates this policy. See http://www.sexualharassment.ucla.edu.

**Definitions**

For detailed definitions of sexual harassment, refer to Section 102.09 of the UCLA Student Conduct Code 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 Sexual Harassment Coordinator in 2241 Murphy Hall 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. **Campus Human Resources/Staff and Faculty Counseling Center, Coordinator,** 380 UCLA Wilshire Center, (310) 794-0248

3. **Chancellor’s Office, Sexual Harassment Coordinator,** 2241 Murphy Hall, (310) 206-3417

4. **Counseling and Psychological Services, Director,** 221 Wooden Center West, (310) 825-0768

5. **David Geffen School of Medicine, Dean’s Office, Special Projects Director,** 12-138 Center for the Health Sciences, (310) 794-1956

6. **Graduate Division, Office Manager,** 1237 Murphy Hall, (310) 206-3269

7. **Healthcare Human Resources, Employee Relations Manager,** 400 UCLA Wilshire Center, (310) 794-0500

8. **Lesbian Gay Bisexual Transgender Campus Resource Center, Director,** B36 Student Activities Center, (310) 206-3628

9. **Office of the Dean of Students, Assistant Dean of Students,** 1206 Murphy Hall, (310) 825-3871

10. **Office of Ombuds Services, 105 Strathmore Building,** (310) 825-7627; 52-025 Center for the Health Sciences, (310) 206-2427

11. **Office of Residential Life, Judicial Affairs Coordinator,** 205 Bradley Hall, (310) 825-3401

12. **Resnick Neuropsychiatric Hospital, Administration/Human Resources Associate Director,** B7-370 Semel Institute, (310) 206-5258

13. **School of Dentistry, Assistant Dean, Student Affairs,** A0-111 Dentistry, (310) 825-2615

14. **Student Legal Services, Director,** A239 Murphy Hall, (310) 825-9894

15. **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/coordrev/ucpolicies/aos/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 Section 102.11 of the Policies, 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. Counseling and Psychological Services, 221 Wooden Center West, (310) 825-0768, http://www.counseling.ucla.edu
2. Dashew Center for International Students and Scholars, 106 Bradley Hall, (310) 825-1681, http://www.internationalcenter.ucla.edu

Complaint Resolution
One of the necessary measures in our efforts to assure an atmosphere of civility and mutual respect is the establishment of procedures which provide effective informal and formal mechanisms for those who believe that they have been victims of any of the above misconduct.

Many incidents of harassment and intimidation can be effectively resolved through informal means. For example, an individual may wish to confront the alleged offender immediately and firmly. An individual who chooses not to confront the alleged offender and who wishes help, advice, or information is urged to contact 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/9.htm). Part II A of the Faculty Code of Conduct outlines faculty obligations to students and reads as follows:

Teaching and Students
Ethical Principles: “As teachers, the professors encourage the free pursuit of learning of their students. They hold before them the best scholarly standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to assure that their evaluations of students reflect each student’s true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic and scholarly assistance from them. They protect their academic freedom.” (from 1966 AAUP statement, revised 1987)

Types of Unacceptable Conduct
Failure to meet the responsibilities of instruction, including (1) arbitrary denial of access to instruction, (2) significant intrusion of material unrelated to the course, (3) significant failure to adhere, without legitimate reason, to the rules of the faculty in the conduct of courses, to meet class, to keep office hours, or to hold examinations as scheduled, (4) evaluation of student work by criteria not directly reflective of course performance, (5) undue and unexcused delay in evaluating student work.

Discrimination, including harassment, against a student on political grounds or for reasons of race, religion, sex, sexual orientation, 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.

Entering into a romantic or sexual relationship with any student for whom a faculty member has, or should reasonably expect to have in the future, academic responsibility (instructional, evaluative, or supervisory).

Exercising academic responsibility (instructional, evaluative, or supervisory) for any student with whom a faculty member has a romantic or sexual relationship.

Charges of Violation
If a student has reason to believe that a faculty member has violated the Faculty Code of Conduct and that formal discipline may be warranted, the alleged violator should be reported to the chair of the department and to the dean of the division or school with a request that a charge be filed with the Academic Senate Charges Committee. If the dean, in consultation with the vice chancellor of Academic Personnel, determines that there are not sufficient grounds for the administration to file a charge, the student may, after discussing the matter with the Office of Ombuds Services and a member of the Academic Senate Grievance Advisory Committee, file such a charge in person if the student continues to feel it is warranted.

Residence for Tuition Purposes
Students who have not been living in California with intent to make it their permanent home for more than one year immediately before the residence determination date for each term in which they propose to attend the University must pay nonresident supplemental tuition in addition to all other fees. The residence determination date is the day instruction begins at the last of the University of California campuses to open for the quarter, and for schools on the semester system, the day instruction begins for the semester.

Laws 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 Order 110.2 of The Regents of the University of California (http://www.universityofcalifornia.edu/regents/bylaws/so1102.html). 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, R, T, U, or V.

To establish residence students must be physically present in California for more than one year, and they must have come here with the 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 intentional move to California by properly recording their residential ties with their former state of residence and establishing those ties with California. If these steps are delayed, the one-year duration is extended until students have demonstrated both presence and intent for one full year. If their parents are not California residents, students are required to be financially independent in order to be a resident for tuition purposes. Their residence cannot be derived from their spouse, registered domestic partner, or their parents.

Requirements for Financial Independence

Students are considered financially independent if one or more of the following apply: (1) they are at least 24 years of age by December 31 of the calendar year for which they are requesting residence classification; (2) they are a veteran of the U.S. Armed Forces; (3) they are a ward of the court or both parents are deceased; (4) they have legal dependents other than a spouse; (5) they are married, have a registered domestic partner, or are a graduate student or a professional student, and they were not claimed as an income tax deduction by their parents or any other individual for the tax year immediately preceding the term for which they are requesting resident classification; or (6) they are a single undergraduate student and they were not claimed as an income tax deduction by their parents or any other individual for the two tax years immediately preceding the term for which they are requesting resident classification, and they can demonstrate self-sufficiency for two full years prior to the residence determination date of the term they propose to attend the University through their own resources (such as employment, commercial loans, financial aid, and savings that can be officially documented). The two years required for self-support might not coincide with the two tax years during which they must not have been claimed by their parents.

Note: Financial dependence is not a factor in determining residence status for graduate students, 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 that precludes them from establishing a domicile in the U.S., students may establish their own residence when both their parents are deceased and a legal guardian has not been appointed. If they derive California residency 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

Minor students may be entitled to resident classification if, immediately prior to enrolling in a postsecondary institution, they have been living with and been under the continuous direct care and control of an adult or adults other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of majority and have lived in the state the minimum time necessary to become a resident, so long as continuous full-time attendance is maintained at a postsecondary institution.

Self-Support

If students are U.S. citizens or eligible aliens and are minors who can prove that they lived in California for the entire year immediately before the residence determination date, that they have been self-supporting for that year, and that they intend to make California their permanent home, they may be eligible for resident status.

Exemptions from Nonresident Supplemental Tuition

Member of the Military

Members of the U.S. military may be exempt from nonresident supplemental tuition unless their assignment to California is for the purpose of attending a state-supported institution of higher education. Graduate and professional students are eligible for this exemption for two years, during which time they must fulfill the UC residence requirements in order to maintain their resident status. They must provide the residence deputy on campus with a statement from their commanding officer or personnel officer stating that their assignment to active duty in California is not for educational purposes. The letter must include the dates of their assignment to the state.

Undergraduate students discharged from military service after having been stationed in California on active duty for at least 366 days are entitled to resident classification for the minimum time necessary to establish residence (366 days). In this case, financial independence is not a requirement.

Some members of the U.S. military may qualify for an exemption from nonresident supplementa
tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate and graduate students who are
members of the U.S. military on active duty for a period of more than 30 days and whose domicile or permanent duty station is in California, are entitled to an exemption from nonresident supplemental tuition. Students must be continuously enrolled at the University, notwithstanding a subsequent change in their permanent duty station to a location outside of California.

**Spouse, Registered Domestic Partner, or Other Dependents of Military Personnel**

Students are exempt from payment of nonresident supplemental tuition if they are a spouse, registered domestic partner, or natural or adopted child or stepchild who is a dependent of a member of the U.S. military stationed in California on active duty. Graduate and professional students are eligible for the exemption only until they have resided in the state the minimum time necessary to become a resident (366 days). Students must petition for a waiver of nonresident supplemental tuition each term they are eligible. If they are enrolled in an educational institution and the member of the 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.

Some dependents of members of the U.S. military may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate or graduate students who are the spouse, registered domestic partner, or dependent child of a member of the U.S. military on active duty for a period of more than 30 days and whose domicile or permanent duty station is in California, are entitled to an exemption from nonresident supplemental tuition. Students must be continuously enrolled at the University, notwithstanding a subsequent change in the U.S. military member’s permanent duty station to a location outside of California.

**Child, Spouse, or Registered Domestic Partner of Faculty Member**

To the extent funds are available, if students are an unmarried dependent child under age 21, spouse, or registered domestic partner of a member of the University faculty who is a member of the Academic Senate, they may be eligible for a waiver of nonresident supplemental tuition. Confirmation of the faculty member’s membership on the Academic Senate must be secured each term this waiver is granted.

**Child, Spouse, or Registered Domestic Partner of University Employee**

Students may be entitled to resident classification if they are an unmarried dependent child, spouse, or registered domestic partner of a full-time University employee whose assignment is outside California (e.g., Los Alamos Scientific Laboratory or University of California Washington, DC, Center). Their parent’s, spouse’s, or registered domestic partner’s employment status with the University must be ascertained each term.

**Child, Spouse, or Registered Domestic Partner of Deceased Public Law Enforcement or Fire Suppression Employee**

Students may be entitled to a waiver of nonresident supplemental tuition if they are the child, spouse, or registered domestic partner of a deceased public law enforcement or fire suppression employee who was a California resident at the time of his or her death and who was killed in the course of fire suppression or law enforcement duties.

**Dependent Child of a California Resident**

If students have not been an adult resident of California for more than one year and are the natural or adopted dependent child of a California resident who has been a resident for more than one year immediately prior to the residence determination date, they may be entitled to a waiver of nonresident supplemental tuition until they have resided in California the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.

**Native American Graduate of a Bureau of Indian Affairs High School**

Students who are graduates of a California high school operated by the federal Bureau of Indian Affairs may be exempt from nonresident supplemental tuition.

**Employee of a California Public School District**

Students holding a valid credential authorizing service in the public schools of the State of California who are employed by a school district in a full-time certificate position may be exempt from nonresident supplemental tuition.

**Student Athlete in Training at the U.S. Olympic Training Center, Chula Vista**

Any amateur student athletes in training at the U.S. Olympic Training Center in Chula Vista may be exempt from nonresident supplemental tuition until they have resided in California 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 attained the equivalent) may be exempt from nonresident supplemental tuition. 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 nonresident supplemental tuition.

**Recipients of the Congressional Medal of Honor and Their Children under Age 28**

Undergraduate students who are recipients of the Congressional Medal of Honor or who are the children of a recipient may be exempt from nonresident supplemental tuition. Recipients must be California residents, and students must be under age 28. Students’ annual income must not exceed the national poverty level. If the recipient was a parent who died, the parent must have been a California resident at the time of death.

**Dependents or Wards of State through California’s Child Welfare System**

Notwithstanding any other provisions, students who reside in California and are 19 years of age or under at the time of enrollment, and who are currently dependents or wards of the state through California’s Child Welfare System, or were served by California’s Child Welfare System and are no longer being served either due to emancipation or aging out of the system, shall be entitled to a resident classification as long as they remain continuously enrolled.

**Temporary Absences**

If persons are nonresident students who are in the process of establishing a residence for tuition purposes and they return to their former home during noninstructional periods, their presence in the state is presumed to be solely for educational purposes and only convincing evidence to the contrary rebuts this presumption. Students who are in the state solely for educational purposes are NOT classified as residents for tuition purposes regardless of the length of their stay.

If persons are students who have been classified as residents for tuition purposes and they leave the state temporarily, their absence could result in the loss of their California residence. The burden is on students (or their parents if they are minors) to verify that they did nothing inconsistent with their claim of a continuing California residence during their absence. Steps that students (or their parents) should take to retain a California residence include the following:

1. Continue to use a California permanent address in all records—educational, employment, military, etc.
2. Continue to satisfy California tax obligations. If students are claiming California residence, they are liable for payment of income taxes on their total income from the 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 Residence Classification

Students may obtain a petition at 1113 Murphy Hall or at http://www.registrar.ucla.edu/forms/residenceclass.pdf 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, UCLA Office of the Registrar, 1113 Murphy Hall, Box 951429, Los Angeles, CA 90095-1429 (310-825-3447; http://www.registrar.ucla.edu/faq/residencefaq.htm).

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.

Students may appeal a campus nonresident determination to the Office of the General Counsel only on the grounds and within the deadline specified below.

Grounds for Appeal

1. The decision for classify students as nonresidents for purposes of tuition was based on (a) a significant error of fact, (b) a significant procedural error, or (c) an incorrect application of policy that, if corrected, would require that the students be reclassified as residents.

2. Significant new information became available after the date of the campus decision classifying the students as nonresidents; despite the exercise of reasonable diligence (care and attention) the information was not previously known or available to the students; and, based on the new information classification as nonresidents is incorrect.

No appeals based solely on disagreement with the campus decision are acceptable.

Appeal Deadline

The Office of the General Counsel must receive the appeal from students within 30 days of the date of the campus decision notifying students of the nonresident classification. Appeals should be directed to Residency Analyst, UC Office of the General Counsel, 1111 Franklin Street, 8th Floor, Oakland, CA 94607-5200. NO OTHER UNIVERSITY PERSONNEL ARE AUTHORIZED TO SUPPLY INFORMATION RELATIVE TO RESIDENCE REQUIREMENTS FOR TUITION PURPOSES.

Privacy Notice

All 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 Standards for Satisfactory Academic Progress

The UCLA Financial Aid Office establishes Standards of Satisfactory Academic Progress to measure students’ progress toward degree completion using both qualitative and quantitative methods in accordance with federal regulations. To be eligible for financial aid, students must meet or exceed these standards. Failure to maintain these standards may result in suspension of financial aid eligibility. The standards are as strict or more strict than the UCLA standards for a student enrolled in the same educational program who is not receiving Title IV assistance. See the Guide to Satisfactory Academic Progress at http://www.fao.ucla.edu/publications.html.

Qualitative Standard

Undergraduate students must maintain a cumulative grade-point average (GPA) of 2.0; graduate students must maintain a cumulative grade-point average of 3.0.

Quantitative Standard

Students must complete a minimum of 67 percent of cumulative coursework attempted.

Maximum Timeframe

Units attempted may not exceed 150 percent of the published length of students’ programs.

Change of Major/Pursuit of Double Major/Minor

Students who have a change of academic major or pursue a double major or minor do not have additional financial aid eligibility beyond the maximum timeframe established in this policy.

Successful Completion of Units

To successfully complete units, students must receive a grade of A, B, C, D, or P (S for graduate students) in each course. Grades of F, I, NP (U for graduate students), NR (No Report), and DR (Deferred Report) do not count as successful completion of coursework attempted.

The Standards for Satisfactory Academic Progress apply to all coursework attempted, including coursework for which students did not receive financial aid.

Cancellations

Cancellation of registration on or before the first day of classes does not count as units attempted.

English as a Second Language, Remedial, and Summer Sessions Coursework

English as a Second Language (ESL), remedial, and Summer Sessions coursework counts as units attempted and toward the cumulative grade-point average.

Repeat Coursework

Repeated courses and grade-point average are treated in accordance with the University’s academic policy as outlined in this catalog. If the Registrar’s Office counts repeat coursework as attempted/completed, this counts equally for academic progress standards.

Transfer Coursework

Coursework accepted for transfer credit counts as both units attempted and completed and has no affect on grade-point average unless the coursework is transferred from another UC campus.

Withdrawals

Withdrawals after the first day of classes during a term count as units attempted unless students do not attend any classes for the given term and receive a 100 percent refund of all fees.

Evaluation

Academic progress is evaluated annually after Winter Quarter grades are available. For students on probation and for students who are required to follow an academic plan (see below), academic progress is evaluated each term.

Suspension

Students who fail to meet the Standards for Satisfactory Academic Progress are placed on suspension and are no longer eligible to receive financial aid. Suspended students are notified via MyFAO account.

Appeal Process

Students who have their financial aid suspended may submit a written appeal using the Satisfactory Academic Progress Appeal form. When filing an appeal, they must provide a full explanation along with documentation, verifying the circumstances that led to their inability to meet the Standards for Satisfactory Academic Progress. Before filing an appeal, students should seek assistance from an aca-
demic adviser to explore ways to eliminate deficiencies and to establish a realistic plan toward graduation. Refer to the Appeal Instruction Packet for specific examples of valid reasons for an appeal.

**Appeal Deadline**

Appeals must be submitted to the Financial Aid Office prior to the last day of the term for which students are appealing to have aid reinstated. Appeals are not considered retroactively. Refer to the Appeal Instruction Packet for priority deadlines.

**Denied Appeals**

If the appeal is denied, students may file a secondary appeal and submit additional information that may help explain the circumstances by which they were not able to maintain the Standards for Satisfactory Academic Progress. They are notified of the decision of the secondary appeal in writing; the decision is final.

**Probation**

Students who have an appeal approved are placed on probation and their academic progress monitored on a quarterly basis to ensure that they meet the conditions of their academic plan.

**Reinstatement**

Students who have had their aid eligibility suspended for failing to maintain the Standards for Satisfactory Academic Progress, or who have a denied satisfactory academic progress appeal, may regain financial aid eligibility by becoming compliant with the qualitative and quantitative components of the academic progress standards. Students who exceed the maximum timeframe cannot regain eligibility through the reinstatement process.

**Academic Plans**

If students are required to submit an academic plan as a condition of their approved appeal, their financial aid cannot be disbursed until the Financial Aid Office confirms that they are adhering to their academic plan. Students on an academic plan are evaluated each term. Their ability to adhere to the units and courses specified in their academic plan is closely monitored. Failure to adhere to their academic plan causes delays in their aid being disbursed and may result in suspension of their financial aid eligibility.

**Professional Schools**

Students attending the Schools of Dentistry, Law, Management, Medicine, and University Extension are covered by criteria established by the respective school.

**Grading Regulations**

**Assigning a Grade**

The instructor in charge of a course is responsible for determining the grade of each student in the course. The standards for evaluating student performance are based on the course description as approved by the appropriate course committee.

The final grade in the course is based on the instructor's evaluation of the student's achievement in the course. When on an examination or other work submitted by a student, the student is suspected of having engaged in plagiarism or otherwise having cheated, the suspected infraction is to be reported to the appropriate administrative officer of the University for consideration of disciplinary proceedings against the student. Until such proceedings, if any, have been completed, the 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. In light of that report, the instructor may replace the grade DR with a final grade that reflects an evaluation of that which may fairly be designated as the student's own achievement in the course as distinguished from any achievement that resulted from plagiarism or cheating.

**Grade Complaints**

A grade may be appealed, on any reasonable grounds, to the chair of the department, and the dean of the division or school.

If the student believes that the instructor has violated the Faculty Code of Conduct by assigning the grade on any basis other than academic grounds, the matter should first be taken up with the instructor. If the matter is not resolved, the student may go for counsel to the Office of Ombuds Services or may follow the procedures for the formal filing of charges (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. No grade change may be made once a student has graduated. All grade changes are recorded on the transcript.

**Policy on Alternate Examination Dates**

In compliance with Section 92640(a) of the California Education Code, the University must accommodate requests for alternate examination dates for any test or examination at a time when that activity would not violate a student's religious creed. This requirement does not apply in the event that administering the test or examination at an alternate time would impose an undue hardship that could not reasonably be avoided. Accommodation for alternate examination dates are 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 that 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 written consent for release, personally identifiable information from their student records, except as provided by Federal and State Laws and University Policies, (3) inspect records maintained by UCLA of disclosures of personally identifiable information from their student records, (4) seek correction of their student records through a request to amend the records or, if such request is denied, through a hearing, and (5) file complaints with the U.S. Department of Education regarding alleged violations of the rights accorded them by FERPA.

UCLA, in accordance with Federal and State Laws and University Policies, has designated the following categories of personally identifiable information as “public information” that UCLA may release and publish without the student’s prior consent: name, address (local/mail ing, permanent, and/or e-mail), telephone numbers, major field of study, dates of attendance, enrollment status, grade level, number of course units in which enrolled, degrees and honors received, the most recent previous educational institution attended, participation in officially recognized activities (including intercollegiate athletics), and the name, weight, and height of participants on intercollegiate athletic teams. As a matter of practice, UCLA does not publish student addresses or telephone numbers in the campus electronic directory unless released by the student. The term “public information” in this policy is synonymous with the term “directory information” in FERPA.

Students who do not wish certain items (i.e., name, local/mail ing, 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 “public 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 the Registrar’s Office, 1113 Murphy Hall.

Student records that are the subject of Federal and State Laws and University Policies may be maintained in a variety of offices, including the Registrar’s Office, Office of the Dean of Students, UCLA Career Center, Graduate Division, UCLA External Affairs Department, and the offices of a student’s college or school and major department. Students are referred to the online UCLA Campus Directory (http://www.directory.ucla.edu) 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 three working days in advance. Call (310) 825-1091, option 6, or inquire at the Registrar’s Office, 1113 Murphy Hall.

A copy of the Federal and State Laws, University Policies, and the print UCLA Telephone Directory may be inspected in the office of the Information Practices Coordinator, 500 UCLA Wilshire Center. Information concerning students’ hearing rights may be obtained from that office and from the Office of the Dean of Students, 1206 Murphy Hall.

**Undergraduate Retention, Graduation, and Time to Degree**

Retention and graduation rates in undergraduate programs at UCLA are consistently among the highest in the nation. At least 97 percent of all students entering as freshmen and 94 percent of all students entering as transfers typically continue their enrollment at UCLA into a second academic year and beyond.

Recent four-year, five-year, and six-year graduation rates for students entering from high school have averaged 70, 89, and 90 percent respectively. Over 91 percent of all entering freshmen eventually graduate from UCLA.

Recent two-year, three-year, and four-year graduation rates for entering transfer students have averaged 60, 86, and 90 percent respectively. Over 91 percent of all entering transfer students eventually graduate from UCLA.

Time to degree for UCLA undergraduates has declined significantly over the past decade. In 2010-11 approximately 4,250 baccalaureate degrees were awarded to students who entered directly from high school. The average number of quarters registered at UCLA was 12.1. Among recent graduates, 80 percent were registered for 12 quarters or less (i.e., four years or less), 89 percent for 13 quarters or less, 94 percent for 14 quarters or less, and 99 percent for 15 quarters or less (i.e., five years or less).

In 2010-11 approximately 3,100 baccalaureate degrees were awarded to students who entered as transfers. The average number of quarters registered at UCLA was 6.7. Among recent graduates, 67 percent were registered for six quarters or less (i.e., two years or less), 77 percent for seven quarters or less, 85 percent for eight quarters or less, and 96 percent for nine quarters or less (i.e., three years or less).

Additional information is available at http://www.aim.ucla.edu/graduation/graduation.asp.

**Campus Security Information**

**UCLA Police Department**

The UCLA Police Department (UCPD), (310) 825-1491, http://www.ucpd.ucla.edu, is located at 601 Westwood Plaza. The sworn State of California Police Officers are 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; detectives conduct interviews, arrest violators, execute search warrants, and file cases with the Los Angeles District and City Attorney Offices.

**Incident Reporting**

UCLA police officers have primary jurisdiction over the UCLA campus, Reagan UCLA Medical Center, Center for the Health Sciences, Santa Monica UCLA Medical Center and Orthopaedic Hospital, and University Apartments South. The City of Los Angeles Police Department does not handle calls for service on campus or on most UCLA properties. All requests for police service should be made to UCPD. All crime occurring on campus, the Center for the Health Sciences, and other UCLA properties should be reported immediately to the police department to ensure appropriate action is taken. Crimes occurring off campus should be reported immediately to the local law enforcement agency. UCPD does take reports from students, faculty, and staff for incidents occurring in the Westwood area.

Police, fire, or medical EMERGENCIES can be reported by dialing 911 from any telephone on campus. All landline telephones (University, private, or 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. Campus community members are encouraged to program the department num-
ber into their cell phones and report on suspicious circumstances.

**Crime Statistics and Reports**

As required by the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, UCLA prepares an annual report describing campus security policy and information concerning alcohol and drug use, crime prevention, crime reporting, and related matters. It also includes three years of crime statistics. Printed copies are available by calling (310) 825-1491. The report can be accessed at http://map ais.ucla.edu/go/1000958.

**Community Service Officers**

UCPD employs approximately 80 student community service officers (CSOs; http://map ais.ucla.edu/go/1000050) who are the additional “eyes and ears” (trained observers) of the department and act as noninterventional visual deterrents to crime. CSOs wear high-visibility uniforms and carry two-way police radios. They are dispatched by the department’s Communications Center and provide a direct link to police, fire, and medical aid. CSOs provide security service to a number of campus buildings, including residence halls and libraries. They are most well-known for the Campus Escort Service and the Evening Van Service. The Campus Escort Service (http://map ais.ucla.edu/go/1000066) operates every day of the year from dusk to 1 a.m. (2 a.m. on Thursdays during academic terms). Individuals requesting the service call the Communications Center at (310) 794-WALK; a CSO is then dispatched to walk them safely to their destination. The service is available to UCLA students, staff, faculty, and visitors and operates on campus and in the nearby residential areas. The Evening Van Service (http://map ais.ucla.edu/go/1001008) provides a safe and convenient mode of transportation around campus at night (Monday through Thursday from 6 to 11 p.m. during academic terms) 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://map ais.ucla.edu/go/1001449) 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 sexual assault 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. Counseling and Psychological Services (CAPS) 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, and the continuum of violence and rape in society. The educational programs, tailored to meet the needs of individual audiences, include films, discussion groups, lectures, role-plays, and communication exercises. CAPS reaches students through the residence halls, sororities, fraternities, athletic teams, student clubs, and various student functions. Services include crisis intervention and advocacy for victims of sexual assault; short-term counseling and referrals for survivors, their families, and friends; support groups for rape survivors; and self-defense classes and a lending library. CAPS works closely with the student housing offices and the police department to increase campus safety.

Several programs have been designed to increase the level of crime awareness and campus safety at UCLA. All incidents of criminal activity that pose a potential threat to the campus are brought immediately to the attention of the community through campus Crime Alert Bulletins (http://map ais.ucla.edu/go/1001893). Additionally, those interested in receiving public safety bulletins and news briefs can sign up for the public safety list server at http://lists.ucla.edu/cgi-bin/mailman/listinfo/campus-safety-l.

**Emergency Medical Services**

UCPD provides emergency medical assistance for the campus community through the Emergency Medical Service program, which is staffed by students certified as emergency medical technicians (EMTs). As in all emergencies, call 911 for this service.

**Alcohol and Substance Abuse Education**

Students with alcohol or substance abuse problems create safety and health risks for themselves and others. Such abuses also can result in a wide range of emotional and behavioral problems. Therefore, UCLA makes available to every student a variety of alcohol and substance abuse awareness programs that are designed to discourage the use of illicit substances and to educate students on the merits of legal and responsible alcohol consumption. Counseling and Psychological Services (310-825-0768; http://www.counseling.ucla.edu) provides counseling and referral assistance to students who are worried about 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 connection with any academic determination or as a basis for disciplinary proceedings.

**Policies**

UCLA is designated as a drug-free environment, and only under certain conditions is alcohol consumption permitted (none is permitted at athletic events). In keeping with its educational mission, the University assumes the responsibility to better inform the UCLA community about alcohol and substance abuse.

The sale, manufacture, distribution, or possession of any controlled substance without a prescription is illegal under both State and Federal Laws. Such laws are strictly enforced by 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 11,000 students. Housing facilities range from apartments designed for students with children to multistudent apartment complexes to high-rise student residence halls. UCPD and student housing staff work hand in hand to create a safe and comfortable living and learning environment.

Campuswide security and safety programs for residents are held throughout the year to increase 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 commonsense crime prevention techniques. Because the campus is open 24 hours a day, visitation to residence halls and apartments is not restricted. All residence halls have 24-hour access control on entrance doors, and during the evening hours access control monitors are stationed at each entrance. 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 UCPD. Use the Campus Escort Service when walking at night. Keep room and apartment doors locked at all times. Most important, anyone
need assistance should not hesitate to contact the department.

**APPENDIX B: UNIVERSITY ADMINISTRATIVE OFFICERS**

Terms of Regents (http://www.universityofcalifornia.edu/Regents/) appointed by the Governor expire March 1 of the year in parentheses. The Student Regent (Jonathan Stein) and Alumni Regents serve a one-year term beginning July 1 and ending June 30 of the year listed.

**Regents Ex Officio**

- **Governer of California**
  - Edmund G. Brown, Jr.
- **Lieutenant Governor of California**
  - Gavin C. Newsom
- **Speaker of the Assembly**
  - John A. Pérez
- **State Superintendent of Public Instruction**
  - Thomas A. Torlakson
- **President of the Alumni Associations of the University of California**
  - Ronald Rubenstein (2013)
- **Vice President of the Alumni Associations of the University of California**
  - Alan Mendelson (2013)
- **President of the University**
  - Mark G. Yudof

**Appointed Regents**

- Richard C. Blum (2014)
- William De La Peña (2018)
- Russell S. Gould (2017)
- Eddie Island (2017)
- George D. Kieffer (2021)
- Sherry L. Lansing (2022)
- Monica C. Lozano (2013)
- Hadi Makarachian (2020)
- Norman J. Pattiz (2014)
- Bonnie Reiss (2020)
- Frederick R. Ruiz (2016)
- Leslie Tang Schilling (2013)
- Bruce D. Varner (2018)
- Paul D. Wachter (2016)
- Charlene Zettel (2021)
- Jonathan Stein, Student Regent (2013)

**Faculty Representatives to the Board of Regents**

- Robert L. Powell
- Bill Jacob

**Staff Advisers to the Board of Regents**

- Kevin Smith (2011-13)
- Kathy Barton (2012-14)

**Officers of The Regents**

- **President of The Regents**
  - Edmund G. Brown, Jr.
  - Chair of The Regents
  - Sherry L. Lansing
  - Vice Chair of The Regents
  - Bruce D. Varner
- **Chief Investment Officer and Acting Treasurer**
  - Marie N. Berggren
- **General Counsel**
  - Charles F. Robinson
- **Secretary and Chief of Staff**
  - Marsha Kelman
- **Senior Vice President—Chief Compliance and Audit Officer**
  - Sheryl Vacca

**Office of the President**

- **President of the University**
  - Mark G. Yudof
- **Provost and Executive Vice President—Academic Affairs**
  - Aimée Dorr
- **Executive Vice President—Business Operations**
  - Nathan Brostrom
- **Executive Vice President—Chief Financial Officer**
  - Peter J. Taylor
- **Senior Vice President—External Relations**
  - Daniel M. Dooley
- **Senior Vice President—Health Sciences and Services**
  - John D. Stobo
- **Vice President—Agriculture and Natural Resources**
  - Barbara Allen-Diaz
- **Vice President—Budget and Capital Resources**
  - Patrick J. Lenz
- **Vice President—Human Resources**
  - Dwaine B. Duckett
- **Vice President—Investments**
  - Marie N. Berggren
- **Vice President—Laboratory Management**
  - Glenn L. Mara
- **Vice President—Legal Affairs**
  - Charles F. Robinson
- **Vice President—Research and Graduate Studies**
  - Steven V.W. Beckwith
- **Vice President—Student Affairs**
  - Judy K. Sakaki

**Chancellors of the Campuses**

- **Chancellor at Berkeley**
  - Robert J. Birgeneau
- **Chancellor at Davis**
  - Linda P.B. Katehi
  - Chancellor at Irvine
  - Michael V. Drake
  - Chancellor at Los Angeles
  - Gene D. Block
  - Chancellor at Merced
  - Dorothy Leland
  - Chancellor at Riverside
  - Timothy P. White
  - Chancellor at San Diego
  - Pradeep K. Khosla
  - Chancellor at San Francisco
  - Susan Desmond-Hellmann
  - Chancellor at Santa Barbara
  - Henry T.Y. Yang
  - Chancellor at Santa Cruz
  - George W. Blumenthal

**University Professors, UCLA**

- Robert B. Edgerton, University Professor, Los Angeles, Anthropology, Psychiatry and Biobehavioral Sciences
- M. Frederick Hawthorne, University Professor, Los Angeles, Chemistry and Biochemistry

**UCLA Administrative Officers**

- **Chancellor**
  - Gene D. Block, Ph.D.
  - Executive Vice Chancellor and Provost
  - Scott L. Waugh, Ph.D.
- **Administrative Vice Chancellor**
  - Jack J. Powazek, Ed.D.
  - **Vice Chancellor—Academic Personnel**
  - Carole E. Goldberg, J.D.
  - **Vice Chancellor—External Affairs**
  - Rhea Turteltaub, B.A.
  - **Vice Chancellor—Finance, Budget, and Capital Programs**
  - Steven A. Olsen, M.P.P.
  - **Vice Chancellor—Health Sciences**
    - A. Eugene Washington, M.D.
  - **Vice Chancellor—Legal Affairs**
    - Kevin S. Reed, J.D.
  - **Vice Chancellor—Research**
    - James S. Economou, M.D., Ph.D.
  - **Vice Chancellor—Student Affairs**
    - Janina Montero, Ph.D.
  - **Vice Provost—Faculty Diversity and Development**
    - Christine A. Littleton, J.D.
  - **Vice Provost—Graduate Education and Dean of Graduate Division**
    - Robin L. Garrell, Ph.D.
  - **Vice Provost—Information Technology**
    - James F. Davis, Ph.D.
  - **Vice Provost—Institute of American Cultures**
    - M. Belinda Tucker, Ph.D.
  - **Vice Provost—International Institute**
    - C. Cindy Fan, Ph.D., Interim
  - **Vice Provost—New Collaborative Initiatives**
    - Kathryn Ann Atchison, D.D.S., M.P.H.
  - **Vice Provost—Undergraduate Education**
    - Judith L. Smith, Ph.D.
- **University Librarian**
  - Gary Strong, M.L.S.
- **University Registrar**
  - Frank Y. Wada, M.A.
  - Dean of Continuing Education and University Extension
  - Cathy A. Sandeen, Ph.D.

**Deans of UCLA College and Schools**

- School of the Arts and Architecture
  - Christopher Waterman, Ph.D.
- School of Dentistry
  - No-Hee Park, D.M.D., Ph.D.
- Graduate School of Education and Information Studies
  - Marcelo M. Suárez-Orozco, Ph.D.
  - **Henry Samuel School of Engineering and Applied Science**
    - Vijay K. Dhir, Ph.D.
- **School of Law**
  - Rachel F. Moran, J.D.
  - **College of Letters and Science**
    - Division of Humanities
      - David C. Schaberg, Ph.D., Interim
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 359 endowed chairs that have been approved by the Office of the President of the University of California, as follows. (Asterisks indicate new chairs that have been approved by the Office of the President since publication of the 2011-12 UCLA General Catalog.)

School of the Arts and Architecture

*Susan G. Covel and Mitchel D. Covel, M.D., Chair in Music
Alma M. Hawkins Memorial Chair
Mickey Katz Endowed Chair in Jewish Music
S. Charles Lee Chair in Architecture and Urban Design
Harvey S. Perloff Chair
Presidential Chair in Music and Interactive Arts
Mohindar Brar Sambhi Endowed Chair in Indian Music
UCLA Art Council Professorship in Art

School of Dentistry

Dr. Thomas R. Bales Endowed Chair in Orthodontics
Dr. Thomas K. Barber Endowed Chair in Pediatric Dentistry
Nobel Biocare Endowed Chair in Surgical Implant Dentistry
Dr. No-Hee Park Chair in Dentistry
Tarrson Family Endowed Chair in Periodontics
Jack A. Weichman Chair in Endodontics
Felix and Mildred Yip Endowed Professorship in Dentistry

Graduate School of Education and Information Studies

Martin and Bernard Breslauer Professorship in Bibliography
Allan Murray Cartliver Chair in Higher Education
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
MacArthur Foundation Chair in Digital Media and Learning
Presidential Chair in Education and Diversity
Presidental Chair in Information Studies

Henry Samuei School of Engineering and Applied Science

L.M.K. Boellet Chair in Engineering
Norman E. Friedmann Chair in Knowledge Sciences
*Leonard Kleinrock Chair in Computer Science
Eavllyn Knight Chair in Engineering
Levi James Knight, Jr., Chair in Engineering
Richard G. Newman AECOM Endowed Chair in Civil Engineering
Nippon Sheet Glass Company Chair in Materials Science
Northrop Grumman Chair in Electrical Engineering
Northrop Grumman Chair in Electrical Engineering/Electromagnetics
Northrop Grumman Opto-Electronic Chair in Electrical Engineering
RALPH M. Parsons Foundation Chair in Chemical Engineering
Jonathan B. Postel Chair in Computer Systems
Jonathan B. Postel Chair in Networking
Raytheon Company Chair in Electrical Engineering
Raytheon Company Chair in Manufacturing Engineering
Charles P. Reames Endowed Chair in Electrical Engineering
Edward K. and Linda L. Rice Endowed Chair in Materials Science
Ben Rich Lockheed Martin Chair in Aeronautics
Rockwell Collins Chair in Engineering
William Frederick Seyer Chair in Materials Electrochemistry
*Ronald and Valerie Sugar Endowed Chair in Engineering
Symantec Chair in Computer Science
Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering
*William D. Van Vorst Chair in Chemical Engineering Education
Wintek Endowed Chair in Electrical Engineering

School of Law

Norman Abrams Endowed Chair in Law
Omar and Azmeralda Ali Chair in Islamic Law
Harry Grafton Bamber Chair in Law
David A. Binder Endowed Chair in Clinical Law
Connell Professorship of Law
Dan and Rae Emmett Endowed Chair in Environmental Law
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Civil Rights and Civil Liberties

Paul Hastings Endowed Chair in Corporate and Securities Law
Pete Kameron Endowed Chair in Law
Pete Kameron Endowed Chair in Law and Social Justice
MacArthur Foundation Chair in International Justice and Human Rights
Richard C. Maxwell Chair in Law
McDonald/Wright Chair in Law
Arjay and Frances Fearing Miller Chair in Law
Susan Westerberg Prager Endowed Chair in Law
David G. and Dallas P. Price Chair in Law
Michael H. Schill Endowed Chair in Law
Gary T. Schwartz Endowed Chair in Law
Security Pacific Bank Chair
Shirley Shapiro Endowed Chair in Environmental Law
Jonathan D. Varat Endowed Chair in Law
William D. Warren Chair in Law
Frank G. Wells Endowed Chair in Environmental Law

College of Letters and Science

Arlen A. Alchian Chair in Economic Theory
Maurice Amado Chair in Sephardic Studies
Jahangir and Eleanor Amuzegar Chair in Iranian Studies
*Joyce Oldham Appleby Endowed Chair of America in the World
George and Sakaye Aratani Chair in Japanese American Incarceration, Redress, and Community
Thomas M. Asher Endowed Chair in Microbiology
Paul D. Boyer Professorship in Molecular Biology and Biochemistry
Henry J. Bruman Chair in German History
Ralph Bunche Chair in International Studies
Dr. E. Bradford Burns Chair in Latin American Studies
Edward W. Carter Chair in Netherlandish Art
Morgan and Helen Chu Endowed Chair in Asian American Studies
James S. Coleman Chair in International Development Studies
James and Carol Collins Chair in College of Letters and Science
Lloyd E. Cotsen Chair in Archaeology
Norman Cousins Endowed Chair in Psychoneuroimmunology
D.J. and J.M. Cram Chair in Organic Chemistry
Charles E. Davidson Endowed Chair in Economics
De Logi Chair in Biological Sciences
A. Richard Diebold, Jr., Endowed Chair in Indo-European Studies
Nevin and Pratima Doshi Chair in Indian History
Mr. and Mrs. C.N. Flint Professorship in Philosophy
Christopher S. Foote Chair
Evan Frankel Endowed Chair in English
Gloria and Paul Griffin Chair in Philosophy
*Haruhisa Handa Professorship in Shinto Studies
John Charles Hillis Chair in Literature
Marvin Hoffenberg Chair in American Politics and Public Policy
Richard Hovannisian Chair in Modern Armenian History
Appendix C: Endowed Chairs

- **Penny Kanner Endowed Chair in Women's Studies**
- **Fred Kavli Chair in Nanosystems Sciences**
- **Kershaw Chair in Ancient Eastern Mediterranean Studies**
- **Alexander and Renee Kolin Endowed Professorship in Molecular Biology and Biophysics**
- **Korea Times-Hankook Ilbo Chair in Korean American Studies**
- **Lauren B. Leichtman and Arthur E. Levine Astrophysics Endowed Chair**
- **Madeleine L. Leetessier Chair in French and Francophone Studies**
- **John McTague Career Development Chair**
- **Dorothy L. Meier Social Equities Chair**
- **Sherie L. Morrison Chair in Microbiology, Immunology, and Molecular Genetics**
- **Franklin D. Murphy Chair in Italian Renaissance Studies**
- **Narekatsi Chair in Armenian Studies**
- **Gary B. Nash Endowed Chair in United States History**
- **Waldo W. Neikirk Chair**
- **LeRoy Neiman Chair**
- **“1939” Club Chair**
- **Joan Palevsky Chair in Classics**
- **Presidential Chair in Institute of the Environment**
- **Presidential Chair in Modern European History**
- **Presidential Chair in Molecular Cell Biology**
- **President's Chair in Developmental Immunology**
- **Hans Reichenbach Chair in Scientific Philosophy**
- **Howard Reiss Career Development Chair**
- **Maria Rowena Ross Chair in Cell Biology and Biochemistry**
- **Michael and Irene Ross Chair in Yiddish Studies**
- **Musa Sabi Chair in Iranian Studies**
- **David Saxon Presidential Chair in Mathematics**
- **David Saxon Presidential Chair in Physics**
- **David S. Saxon Presidential Chair in Physics**
- **Johanna F. and Joseph H. Shaper Family Chair in Microbiology**
- **Louis B. Slichter Chair in Geophysics and Planetary Physics**
- **Kenneth L. Sokoloff Endowed Chair in Neuroscience**
- **Charles Speroni Chair in Italian Literature and Culture**
- **Staglin Family Chair in Psychology**
- **Steinmetz Chair in Classical Archaeology and Material Culture**
- **Irving and Jean Stone Endowed Chair in Life Science**
- **Irving and Jean Stone Endowed Chair in Physical Science**
- **Irving and Jean Stone Endowed Chair in Humanities**
- **Jean Stone Chair**
- **UCLA Alumni and Friends of Japanese Ancestry Chair in Japanese American Studies**
- **UCLA Foundation Chair**
- **Steven F. and Christine L. Udvary-Hazy Chair**
- **Alexander von Humboldt Endowed Chair in Geography**
- **Walter and Shirley Wang Chair in U.S./China Relations and Communications**
- **Eugen Weber Chair in Modern European History**
- **Wendell Jeffrey and Bernice Wenzel Chair in Behavioral Neuroscience**
- **Dean M. Willard Chair in Chemistry**
- **Saul Winstein Chair in Organic Chemistry**
- **Linda and Fred Wudi Chair**
- **Stanley M. Zimmerman Endowed Chair in Economics and Finance**

**John E. Anderson Graduate School of Management**
- **Allstate Chair in Insurance and Finance**
- **Andersen Worldwide Chair in Management**
- **John E. Anderson Chair in Management**
- **Marion Anderson Chair in Management**
- **Arden Realty Chair**
- **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 Finance Markets**
- **Ernst and Young Chair in Accounting**
- **Laurence D. and Lori W. Fink Endowed Chair in Finance**
- **Henry Ford II Chair in International Management**
- **Joel Fried Chair in Applied Finance**
- **Lee and Seymour Graft Endowed Professorship**
- **Godfrey and Irwin Hearst 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 Marketing Professorship**
- **Harry and Elsa Kunin Chair in Business and Society**
- **J. Clayburn La Force Chair in Management**
- **William E. Leonhard Chair in Management**
- **Los Angeles Times Professor of Management and Policy**
- **Chaucerly J. Medberry Chair in Management**
- **Peter W. Mullin Chair in Management**
- **Howard Noble Chair in Management**
- **Paine Chair in Management**
- **George Robbins Chair in Management**
- **Sanford and Betty Sigloff Chair in Corporate Renewal**
- **J. Fred Weston Chair in Finance**
- **Harold Williams Chair in Management**
- **Ho-Su Wu Chair in Management**

**David Geffen School of Medicine**
- **William S. Adams, M.D., Chair in Medicine**
- **Ahmanson Chair in Ophthalmology**
- **Wallis Annenberg Endowed Chair in Integrative East-West Medicine**
- **Leonard Apt Endowed Chair in Pediatric Ophthalmology**
- **Archstone Foundation Endowed Chair in Geriatrics**
- **Casey Lee Ball Endowed Chair in Pediatric Nephrology**
- **Wiley F. Barker Chair in Vascular Surgery**
- **Dena Bat-Yaakov Endowed Chair in Childhood Psychiatry and Biobehavioral Sciences**
- **Ulrich Batzdorf, M.D., Chair in Spinal Neurosurgery**
- **Louis D. Beaumont Chair in Surgery**
- **Jerome L. Belzer Chair in Medical Research**
- **Lillian and Alvin L. Bergman Chair in Vascular Research**
- **Bing Professorship in Urologic Research**
- **Anna and Harry Borun Chair in Geriatrics/Gerontology**
- **Bowyer Professorship in Medical Oncology**
- **Saul Brandman Endowed Chair in Pulmonary Arterial Hypertension**
- **Judson Braun Chair in Biological Psychiatry**
- **Geri and Richard Brawerman Chair in Pediatric Neurosurgery**
- **Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research**
- **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**
- **Casteria Chair in Cardiology**
- **Vincent and Stella Coates Chair in Molecular Neurobiology**
- **Tony Coelho Chair in Neurology**
- **Carol and James Collins Chair**
- **William E. Connor Chair in Cardiothoracic Transplantation**
- **Elliot Corday Chair in Cardiovascular Medicine and Science**
- **Norman Cousins Endowed Chair in Psychoneuroimmunology**
- **Crump Chair in Medical Engineering**
- **Karen and Frank Dabby Endowed Chair in Ophthalmology**
- **M. Philip Davis Chair in Microbiology and Immunology**
- **Robert and Kelly Day Chair in Cardiothoracic Surgery**
- **Robert and Kelly Day Chair in General Surgery**
- **Robert and Kelly Day Chair in Surgical Outcomes**
- **Robert and Kelly Day Chair in Transplantation**
- **Wini and William J. Dignam Chair in Obstetrics and Gynecology**
- **John Bartley Dillon, M.D., Endowed Chair in Anesthesiology**
- **Roy and Carol Doumani Chair in Biomedical Engineering**
- **Roy and Carol Doumani Chair in Urological Oncology**
- **Dumont-UCLA Chair in Transplantation Surgery**
- **Max Factor Family Foundation Chair in Nephrology**
- **Charles Kenneth Feldman Chair in Ophthalmology**
- **Elsie and Isaac Fogelman Endowed Chair in Pediatric Neurology**
- **Franklin Mint Chair in Eating Disorders**
- **Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry**
- **Joaquin M. Fuster Chair in Cognitive Neuroscience**
- **David Geffen Chair in Informatics**
- **David Geffen Chair in Medical Research**
- **Laraine and David Gerber Chair in Ophthalmology**
- **Maggie G. Gilbert Endowed Chair in Bipolar Disorders**
Appendix C: Endowed Chairs / 673

Fran and Ray Stark Foundation Chair in Digestive Diseases
Fran and Ray Stark Foundation Chair in Ophthalmology
Fran and Ray Stark Foundation Chair in Urology
Frances Stark Chair in Neurology
Jules Stein Chair in Ophthalmology
Michael and Sue Steinberg Endowed Chair in Global AIDS Prevention and Policy Research
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 Borun
Streisand Chair in Cardiology
Dr. George Tarjan Chair in Mental Retardation
Michael E. Tennenbaum Family Endowed Chair in Creativity Research
Leon J. Tiber, M.D., and David S. Alpert, M.D., Chair in Medicine
UCLA Anesthesiology TMG Chair
Vernon O. Underwood Family Chair In Ophthalmology
Phil Woodrow Van Wagoner Professorship
Variety Club-D. Barry Reardon Endowed Chair in Pediatric Hematology/Oncology
Richard D. and Ruth P. Walter Chair in Neurology
Wasserman Professor of Ophthalmology
David Weil Chair in Psychiatry and Biobehavioral Sciences
Dr. Louis Jolyn West Chair in Psychiatry
Judith and Robert Winston Chair in Pediatric Urology

School of Nursing
Lulu Wolf Hasssenplug Chair in Nursing
Audrienne H. Moseley Chair in Biological Nursing Science
Audrienne H. Moseley Chair in Community Health Research
Audrienne H. Moseley Chair in Nursing
Audrienne H. Moseley Chair in Women’s Health Research

Meyer and Renee Luskin School of Public Affairs
Marjorie Crump Chair in Social Welfare
*Luskin Endowed Chair for Dean of the School of Public Affairs
Harvey S. Perloff Chair

Jonathan and Karin Fielding School of Public Health
Fred H. Bixby Chair in Population Policy
Fred W. and Pamela K. Wasserman Endowed Chair in Health Services

School of Theater, Film, and Television
David C. Copley Chair for Study of Costume Design
Lew and Pamela Hunter/Jonathan and Janice Zakin Chair in Screenwriting
Rouben Mamoulian Visiting Chair in Film Directing
APPENDIX D: Distinguished Teaching Awards

Academic Senate Recipients

Each year the UCLA Alumni Association presents Distinguished Teaching Awards to six Academic Senate faculty members. The highly prized awards are presented at the annual Andrea L. Rich Night to Honor Teaching, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during Fall Quarter.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1961
John F. Barron (Economics)
Hector E. Hall (Physiology)
Kenneth N. Trueblood (Chemistry and Biochemistry)

1962
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)

1963
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Weinstein (Chemistry and Biochemistry)

1964
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe F. Rubinstein (Civil and Environmental Engineering)

1965
E.A. Carlson (Biology)
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. Schwebe (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)

1977
Marilyn L. Kourilsky (Education)
Chand R. Viswanathan (Electrical Engineering)

1978
Michael J.B. Allen (English)
Henry M. Cherrick (Dentistry)
Richard C. Maxwell (Law)
J. William Schopf (Earth and Space Sciences)
Verne N. Schumaker (Chemistry and Biochemistry)

1979
Steven Krantz (Mathematics)
Paul I. Rosenthal (Communication Studies)
Christopher Salter (Geography)
James H. White (Mathematics)
Stephen C. Yezell (Law)

1980
A.R. Braunmuller (English)
Fredi Chiappelli (Italian)
Kenneth L. Karst (Law)
Richard F. Logan (Geography)
Ronald F. Zernicke (Physiological Science)

1981
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten, Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)

1982
Dean Bok (Neurobiology)
Robin S. Liggett (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 Kangaroo (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. Shidelor (Scandinavian Section, Comparative Literature)
William D. Warren (Law)

1986
Roger A. Gorski (Neurobiology)
Patricia A. Keating (Linguistics)
Appendix D: Distinguished Teaching Awards / 675

William M. Gelbart (Chemistry and Biochemistry)
Phyllis A. Guzé (Medicine)
Peter B. Hammond (Anthropology)
1997
Uptal Banerjee (Molecular, Cell, and Developmental Biology)
Christine D. Gutierrez (Education)
Susan McClary (Musicology)
Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)
Ivan Szelényi (Sociology)
1998
George W. Bernard (Dentistry)
Verónica Cortínez (Spanish and Portuguese)
Wayne A. Dollase (Earth and Space Sciences)
Jayne E. Lewis (English)
Joshua S.S. Muldavin (Geography)
1999
Grace Ganz Blumberg (Law)
Alessandro Duranti (Anthropology)
Richard H. Gold (Radiological Sciences)
N. Katherine Hayles (English)
Bernard Weiner (Psychology)
2000
Scott H. Chandler (Physiological Science)
Efrain Kristal (Spanish and Portuguese)
Hector F. Myers (Psychology)
David Sklansky (Law)
Robert N. Watson (English)
2001
Michael J. Colacurcio (Chemistry and Biochemistry)
Glen M. MacDonald (Physics and Astronomy)
Kevin Terraciano (History)
James W. Trent (Education)
Brian Walker (Political Science)
2002
Christopher R. Anderson (Mathematics)
Steven G. Clarke (Chemistry and Biochemistry)
Anne K. Mellor (English)
Lee Todd Miller (Pediatrics)
Grant S. Nelson (Law)
2003
Joseph J. DiStefano III (Computer Science, Medicine)
Robin L. Garrell (Chemistry and Biochemistry)
A.P. Gonzalez (Film, Television, and Digital Media)
Mitchell B. Morris (Musicology)
Kirk J. Stark (Law)
2004
David B. Kaplan (Philosophy)
Kathryn A. Morgan (Classics)
Mark R. Morris (Physics and Astronomy)
Jesús Torreella (Spanish and Portuguese)
Joan Waugh (History)
2005
Roger Bourland (Music)
Robert G. Fovell (Atmospheric and Oceanic Sciences)
Elma González (Ecology and Evolutionary Biology)
Elizabeth A. Marchant (Spanish and Portuguese)
Mike Rose (Education)
Keith D. Stolzenbach (Civil and Environmental Engineering)
2006
Robert A. Gurval (Classics)
Patricia M. McDonough (Education)
Albert J. Moore (Law)
Kenneth A. Nagy (Ecology and Evolutionary Biology)
David L. Rigby (Geography)
Geoffrey W. Symcox (History)
2007
John A. Agnew (Geography)
Devon Carbado (Law)
Valerie J. Matsumoto (Asian American Studies, History)
Behzad Razavi (Electrical Engineering)
Daniel G. Solórzano (Education)
Blaire Van Valkenburgh (Ecology and Evolutionary Biology)
2008
Elizabeth L. Bjork (Psychology)
Peggy M. Fong (Ecology and Evolutionary Biology)
Linda C. Garro (Anthropology)
Teofilo F. Ruiz (History)
Benjamin J. Schwartz (Chemistry and Biochemistry)
Robert S. Winter (Music)
2009
Roger Detels (Epidemiology)
Luisa M. Iruela-Arispe (Molecular, Cell, and Developmental Biology)
Yung-Ya Lin (Chemistry and Biochemistry)
Mark B. Moldwin (Earth and Space Sciences)
Susan J. Plann (Applied Linguistics and Spanish and Portuguese)
Janice L. Reiff (History)
2010
Katsushi Arisaka (Physics and Astronomy)
Daniel T. Blumstein (Ecology and Evolutionary Biology)
John T. Caldwell (Film, Television, and Digital Media)
Albert J. Courey (Chemistry and Biochemistry)
Jerry Kang (Law)
Steven P. Reise (Psychology)
2011
Ann E. Carlson (Law)
Andrew Christensen (Psychology)
Ian Krouse (Music)
Patricia E. Phelps (Integrative Biology and Physiology)
Yahya Rahmat-Samii (Electrical Engineering)
Philip W. Rundel (Ecology and Evolutionary Biology)
2012
C. Cindy Fan (Geography)
Brandon Koretz (Geriatric Medicine)
Mignon R. Moore (Sociology)
Claudia Parodi-Lewin (Spanish and Portuguese)
Jonathan P. Stewart (Civil and Environmental Engineering)
Christopher S. Tang (Management)
Non-Academic Senate Recipients

In spring of 1985, the Office of Instructional Development began sponsorship of awards to three instructors who are not members of the Academic Senate. This category includes lecturers and adjunct and clinical faculty members. All non-Academic Senate faculty members who are nominated by their departments are eligible. Recipients are selected by the Academic Senate Committee on Teaching, 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.

1985
L. Geoffrey Cowan (Communication Studies)
Mary Elizabeth Perry (History)
Linda Diane Venis (English)

1986
David Cohen (Mathematics)
Johanna Harris-Heggie (Music)
Paul Von Blum (Interdisciplinary)

1987
Carol D. Berkowitz (Pediatrics)
Jeffrey I. Cole (Communication Studies)
Cheryl Giuliano (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott Barchy (History)
Bonnie Lisle (Writing Programs)
Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marde S. Gregory (Speech)
Betty A. Luceigh (Chemistry and Biochemistry)
Cheryl Pfotl (Writing Programs)

1992
Janet Goodwin (Teaching English as a Second Language and Applied Linguistics)
Janette Lewis (Writing Programs)
Yihua Wang (East Asian Languages and Cultures)

1993
Stephen Dickey (English)
Sondra Hale (Anthropology)
Jutta Landa (Germanic Languages)

1994
Steven K. Darian (Law)
Linda Jensen (Teaching English as a Second Language and Applied Linguistics)
Shelby Popham (Writing Programs)

1995
Nicholas Collaros (French)

Kristine S. Knaplund (Law)
Christopher Mott (English)

1996
Scott Bowman (Political Science)
Timothy Tangerlini (Scandinavian Section)
G. Jennifer Wilson (Honors and Undergraduate Programs)

1997
William McDonald (Film and Television)
Stuart Slavin (Pediatrics)
Sung-Ock Sohn (East Asian Languages and Cultures)

1998
Paul Frymer (Political Science)
George Gadda (Writing Programs)
Julie Giese (English)

1999
Patricia Gilmore-Jaffe (Writing Programs)
Emily Schiller (English)
Scott Votey (UCLA Emergency Medicine Center)

2000
Nicole Dufresne (French)
Thomas Holm (Law)
Richard P. Usatine (Family Medicine)

2001
George Leddy (Geography/International Development Studies)
Sandra Mano (Writing Programs)
L. Jean Perry (Molecular, Cell, and Developmental Biology)

2002
Steven Hardinger (Chemistry and Biochemistry)
Colleen K. Keenan (Nursing)
Cynthia Merrill (Writing Programs)

2003
Marjorie A. Bates (Chemistry and Biochemistry)
Anita McCormick (Writing Programs)
Richard Stevenson III (Dentistry)

2004
Andrew Hsu (Philosophy)
Kimberly Jansma (French and Francophone Studies)
Jennifer Westbay (Writing Programs)

2005
Susan Griffin (Writing Programs)
William Grisham (Psychology)
Anahid Keshishian (Near Eastern Languages and Cultures)

2006
Roger E. Bohman (Molecular, Cell, and Developmental Biology)
Jo Ann Damron-Rodriguez (Social Welfare)
Gerald Wilson (Ethnomusicology)

2007
Nancy Ezer (Near Eastern Languages and Cultures)
Fred A. Hagigi (Health Services)
Eric Marin (Film, Television, and Digital Media)

2008
Leigh C. Harris (Writing Programs)
Chi Li (Ethnomusicology)

Robert B. Trelease (Pathology and Laboratory Medicine)

2009
Brent Corbin (Physics and Astronomy)
Laurence Lavelle (Chemistry and Biochemistry)
Fariba Younai (Dentistry)

2010
Patrick D. Goodman (Law)
Amy H. Kaji (Medicine)
Rory M. Kelly (Film, Television, and Digital Media)

2011
Latifeh E. Hagigi (Near Eastern Languages and Cultures)
Dario Nardi (Anthropology)
John (Jay) Phelan (Life Sciences Core Curriculum)

2012
Stuart Biegel (Education)
Ronald Cooper (Integrative Biology and Physiology)
Michael Lazarus (Medicine)

Gold Shield Faculty Prize

The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize “recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity...and who have made a significant contribution to undergraduate education.” Preference for recipients is given to faculty members in mid-career who do not often receive the extra professional incentives available to distinguished senior faculty.

The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.

1986-88
Michael E. Jung (Chemistry and Biochemistry)

1988-90
Patricia M. Greenfield (Psychology)

1990-92
Jeffrey C. Alexander (Sociology)

1992-94
J. William Schof (Earth and Space Sciences)

1994-96
Albert R. Braumuller (English)

1996-98
Peter M. Narins (Physiological Science)
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<th>Name</th>
<th>Department</th>
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<td>1998-00</td>
<td>Robert B. Goldberg</td>
<td>Molecular, Cell, and Developmental Biology</td>
</tr>
<tr>
<td>2000-02</td>
<td>Utpal Banerjee</td>
<td>Molecular, Cell, and Developmental Biology</td>
</tr>
<tr>
<td>2002-04</td>
<td>Richard B. Kaner</td>
<td>Chemistry and Biochemistry</td>
</tr>
<tr>
<td>2004-06</td>
<td>Andrea M. Ghez</td>
<td>Physics and Astronomy</td>
</tr>
<tr>
<td>2006-08</td>
<td>Robert N. Watson</td>
<td>English</td>
</tr>
<tr>
<td>2007-09</td>
<td>William J. Kaiser</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>2008-10</td>
<td>Alicia Gaspar de Alba</td>
<td>Chicana and Chicano Studies</td>
</tr>
<tr>
<td>2009-11</td>
<td>Robin L. Garrell</td>
<td>Chemistry and Biochemistry</td>
</tr>
<tr>
<td>2010-12</td>
<td>David H. Gere</td>
<td>World Arts and Cultures</td>
</tr>
<tr>
<td>2011-13</td>
<td>Matthew D. Lieberman</td>
<td>Psychology</td>
</tr>
<tr>
<td>2012-14</td>
<td>Kevin B. Terraciano</td>
<td>History</td>
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