Mathematics

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Faculty

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Professors: Kenneth Alexander, Ph.D.; Richard Arratia, Ph.D.; Peter Baxendale, Ph.D.; Edward K. Blum, Ph.D.; Francis Bonahon, Ph.D.*; Ronald E. Bruck, Ph.D.; Thomas Geisser, Ph.D.; Larry Goldstein, Ph.D.; Solomon Golomb, Ph.D. *(Electrical Engineering);* Robert Guralnick, Ph.D.*; Nicolai T.A. Haydn, Ph.D.; Ko Honda, Ph.D.; Edmond A. Jonckheere, Ph.D. *(Electrical Engineering);* Sheldon Kamienny, Ph.D.; Igor Kukavica, Ph.D.; P. Vijay Kumar, Ph.D. *(Electrical Engineering);* Ching Chieh Jay Kuo, Ph.D. *(Electrical Engineering);* Charles Lanski, Ph.D.; Sergey Lototsky, Ph.D.; Feodor Malikov, Ph.D.; Remigijus Mikulevicius, Ph.D.; M. Susan Montgomery, Ph.D.*; Paul K. Newton, Ph.D. *(Aerospace and Mechanical Engineering);* Robert C. Penner, Ph.D.; Wlodek Proskurowski, Ph.D.; Wayne Raskind, Ph.D.; John E. Rolph, Ph.D. *(Information and Operations Management);* I. Gary Rosen, Ph.D.; Robert J. Sacker, Ph.D.; Hubert Saleur, Ph.D. *(Physics);* Alan Schumitzky, Ph.D.; Fengzhu Sun, Ph.D. *(Biological Sciences);* Simon Tavaré, Ph.D. *(Biological Sciences);* Firdaus E. Udwadia, Ph.D. *(Mechanical Engineering);* Zdenek Vorel, Ph.D.; Nicholas P. Warner, Ph.D. *(Physics);* Chunming Wang, Ph.D.; Michael S. Waterman, Ph.D. *(Biological Sciences)*

Associate Professors: Ting Chen, Ph.D. *(Biological Sciences);* Jason Fulman, Ph.D.; Lei Li, Ph.D. *(Biological Sciences);* Jianfeng Zhang, Ph.D.; Mohammed Ziane, Ph.D.

Assistant Professor: Jay Bartroff, Ph.D.

Research Professors: George Hajj, Ph.D.; Leonid Piterbarg, Ph.D.

Research Associate Professor: Xiaoqing Pi, Ph.D.

Emeritus Professors: Irving Reed, Ph.D. *(Electrical Engineering);* Paul A. White, Ph.D.

*Recipient of university-wide or college teaching award.

Degree Programs

The Department of Mathematics has designed its major to give students an understanding of the several areas of mathematics. The program of study allows students to use electives to prepare themselves for a specific field, whether in industry, teaching or advanced graduate research. The faculty is engaged in a wide variety of research activities and offers courses in many areas.

The department offers the B.S., B.A., and minor in mathematics; B.S. and B.A. in applied and computational mathematics; B.S. in mathematics/economics; progressive degree programs in mathematics; M.S. in applied mathematics; M.S. in mathematical finance; M.S. in statistics; M.A. in mathematics; M.A. in applied mathematics; M.S. in computational molecular biology; Ph.D. in applied mathematics; and Ph.D. in mathematics.

Undergraduate Degrees

Advanced Placement Examinations in Mathematics

The university grants four units of credit in mathematics for scores of 3, 4 or 5.

Pre-Major Requirements

MATH 125, MATH 126 or MATH 127, MATH 225, MATH 226 or MATH 227 are required.

Major Requirements for the Bachelor of Arts in Mathematics

Six math courses at the 400 level or above including MATH 410, MATH 425a and either MATH 434 or MATH 435, are required.

Major Requirements for the Bachelor of Science in Mathematics

Eight math courses at the 400 level or above, excluding MATH 434 and MATH 450, but including:

REQUIRED COURSES		UNITS
MATH 410	Fundamental Concepts of Modern Algebra	4
MATH 425ab	Fundamental Concepts of Analysis	4-4
MATH 471	Topics in Linear Algebra	4

REQUIRED PHYSICS COURSES		UNITS
PHYS 151L	Fundamentals of Physics I: Mechanics and Thermodynamics	4
PHYS 152L	Fundamentals of Physics II: Electricity and Magnetism	4
PHYS 153L	Fundamentals of Physics III: Optics and Modern Physics	4

Four additional courses in natural sciences or computer science, but excluding courses in mathematics, are required. At least two of these must be upper division courses, and each of the four courses must be acceptable for the Bachelor of Science degree in the department in which it is offered.

Major Requirements for the Bachelor of Arts in Applied and Computational Mathematics

Pre-major requirements: MATH 125, MATH 126, MATH 225 or MATH 245, MATH 226.

In mathematics: MATH 407, MATH 458.

At least four more courses from the following: MATH 370, MATH 408, MATH 410, MATH 425a, MATH 430, MATH 432, MATH 435, MATH 445, MATH 466, MATH 467, MATH 471.

In computing: At least one programming course such as CSCI 101L, ITP 109x, ITP 110x, ITP 150x, ITP 165x or other programming courses approved by the program advisors.

Electives: At least three additional courses with significant quantitative content, in mathematics, natural sciences, computer science, engineering, economics or other fields approved by the department. At least two of these must be outside the mathematics department; moreover, at least two of these three must be in the same department, one of which must be an upper division course.

The list of approved electives will be made available by the program advisors.

Major Requirements for the Bachelor of Science in Applied and Computational Mathematics

Pre-major requirements: MATH 125, MATH 126, MATH 225 or MATH 245, MATH 226.

In mathematics: MATH 407, MATH 408, MATH 425a, MATH 458. At least three courses from MATH 370, MATH 410, MATH 425b, MATH 430, MATH 432, MATH 435, MATH 445, MATH 466, MATH 467, MATH 471.

Students contemplating a graduate degree in mathematics are advised to take MATH 410, MATH 425b and MATH 471.

In computing: At least one programming course such as CSCI 101L, ITP 109x, ITP 110x, ITP 150x, ITP 165x or other programming course approved by the program advisors.

Electives: At least five additional courses with significant quantitative content in mathematics, natural sciences, computer science, engineering, economics or other fields approved by the department. At least three of these must be outside the mathematics department; moreover, at least three of these must be in the same department, and at least two must be upper division courses.

The list of approved electives will be made available by the program advisors.

Grade Point Average Requirements

For each undergraduate degree an overall GPA of 2.0 in all upper division courses taken for the degree is required. In addition, any upper division course specifically listed as required must be passed with a grade of C (2.0) or better (e.g., MATH 410, MATH 425ab and MATH 471 for the B.S. degree).

Minor in Mathematical Finance

This interdisciplinary minor was created for students in business, economics and mathematics, whose majors already require some of the introductory course work. Students in other programs are welcome but should expect the minor to require more units than it does for students in these programs. For more information, see Interdisciplinary Programs, page 103.

Mathematics Minor Requirements

MATH 125, MATH 126 or MATH 127, MATH 225 or MATH 245, MATH 226 or MATH 227 and four math courses at the 400 level or above, one of which must be from MATH 410, MATH 425a, MATH 435, MATH 440 or MATH 471. These four courses at the 400 level or above must total at least 16 units.

Honors Program in Mathematics

Admission to the Program

The honors program is available for mathematics majors. A student must apply to the department for admission. A minimum grade point average of 3.5 is required in the first two years of university work as well as in the lower division mathematics courses MATH 125, MATH 126 or MATH 127, MATH 225 and MATH 226 or MATH 227.

Requirements

The students must complete all requirements for the degree program in which they are enrolled. MATH 410, MATH 425ab and MATH 471 are required. The remaining courses at the 400 level or higher must be acceptable for the B.S. degree.

In addition, students in the honors program must register for at least four units of MATH 490x Directed Research. The student must have an overall GPA of at least 3.5 in all courses at the 400 level or higher.

Combined Mathematics/Economics Major Requirements for the Bachelor of Science

Students are required to take seven courses in economics, seven courses in mathematics and one course in computer programming languages.

Pre-major requirement: MATH 125.

In economics: ECON 203, ECON 205, ECON 303, ECON 305, ECON 414 and at least two other ECON courses at the 400 level or above.

In mathematics: MATH 126 or MATH 127; MATH 225 or MATH 245; MATH 226 or MATH 227; MATH 407, MATH 408 and at least two other MATH courses at the 400 level or above.

In computing: At least one course chosen from ITP 110x, ITP 150x, ITP 165x; CSCI 101L.

Electives must be approved by the program advisors.

Language

Those students intending to go on to graduate school should satisfy the language requirement in French, German or Russian.

Progressive Degree Programs in Mathematics

Outstanding undergraduate students may apply for a master's degree in any area for which their major is relevant. If accepted into the master's degree program, the student may work simultaneously toward their bachelor's degree and the master's degree. To apply for a master's degree, a student must have completed at least 64 units, but fewer than 96 units, toward their major. The application requires two letters of recommendation from USC faculty, at least one of whom must be in the department of the student's major. For more information on progressive degree programs, see page 82.

Graduate Degrees

Admission Requirements

All applicants must take the Graduate Record Examinations General Test.

Master of Arts and Doctor of Philosophy in Mathematics and in Applied Mathematics

A substantial undergraduate background in mathematics which includes one year of real analysis (MATH 425ab), one semester of abstract algebra (MATH 410) and one semester of upper division linear algebra (MATH 471) is required. Students enrolled in one of the department's master of science or arts programs must complete the Ph.D. screening procedure prior to admission to a Ph.D. program.

Master of Science in Applied Mathematics, in Statistics and in Computational Molecular Biology

A substantial undergraduate background in mathematics which includes one semester of real analysis or advanced calculus and one semester of linear algebra is required.

Regular admission pending completion during the first year of graduate studies of prerequisite undergraduate mathematics may be considered for applicants who otherwise qualify for the program.

Degree Requirements
These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Master of Science in Applied Mathematics
This program is intended for individuals who are seeking or currently hold positions which involve mathematical applications, or for mid-career people wishing to improve their skills in applied areas. Specific options in the program include: biomedicine, discrete mathematics, economics, finance and business economics, fluid dynamics, numerical analysis and computation, and systems and control. In addition, students may design their own option to suit specific needs.

On admission to the program, each student is assigned an option advisor. The advisor serves on the student's guidance committee and assists the student in determining the courses of study in the selected option. Courses of instruction are drawn from the Department of Mathematics and other participating departments which include: aerospace engineering, biomedical engineering, civil engineering, computer science, economics, electrical engineering, business administration, mechanical engineering, physiology and biophysics, and preventive medicine.

REQUIRED COURSES		UNITS
MATH 501	Numerical Analysis and Computation	3
MATH 505ab	Applied Probability	3-3
MATH 570a	Methods of Applied Mathematics	3
MATH 601	Optimization Theory and Techniques	3

plus at least 15 units of elected option courses

In addition, registration in MATH 594ab and a master's thesis is required for all students. This thesis is the end product of a practicum in the selected option. The practicum is supervised by the student's guidance committee.

For this program students are not required to take the screening examination or to satisfy a foreign language requirement.

Master of Science in Mathematical Finance
See Mathematical Finance, page 389.

Master of Science in Statistics
The object of this program is to provide academic instruction in statistical theory with a solid mathematical foundation while emphasizing applications to real world problems. Some probability theory is included to provide a rigorous foundation. The program is intended for individuals who are seeking or currently hold positions that involve statistical methodology and practice. A student may orient his or her course of study toward a particular field of application through appropriate selections from the program listings plus elective courses from other disciplines.

Course Requirements
Thirty units of course work are required, including:

REQUIRED COURSES		UNITS
MATH 541ab	Introduction to Mathematical Statistics	3-3
MATH 650	Seminar in Statistical Consulting	3
and one from each of options A, B, C		
(A)		
MATH 505a	Applied Probability	3
MATH 507a	Theory of Probability	3
(B)		
MATH 542L	Analysis of Variance and Design	3
MATH 545L	Introduction to Time Series	3
(C)		
MATH 501	Numerical Analysis and Computation	3
MATH 502a	Numerical Analysis	3
PM 511a	Data Analysis	4

plus at least 12 units of advisor approved courses

After consultation with the faculty, students may opt for a master's thesis (and registration in MATH 594ab), or a written examination covering material from MATH 505a and MATH 541ab. The examination will normally be given at the end of the fall semester.

Master of Science in Computational Molecular Biology
The computational molecular biology program is designed to attract recent graduates in either mathematics, statistics, biology or computer science, or scientists and engineers interested in retraining. A commercial or laboratory internship is required. Students will be prepared for employment in the rapidly expanding areas of computational molecular biology and bioinformatics. The program has two tracks, appropriate for different undergraduate backgrounds: biology and mathematical science. The required courses for each track are indicated below.

REQUIRED COURSES		UNITS
Biological Sciences		
BISC 403***	Advanced Molecular Biology	4
BISC 478**	Computational Genome Analysis	4
BISC 505*	Genomics and Molecular Genetics	4
BISC 542*	Seminar in Molecular Biology	3
BISC 577ab*	Computational Molecular Biology Laboratory	*2-2*
Computer Science		
CSCI 485**	File and Database Management	3
CSCI 570***	Analysis of Algorithms	3
Mathematics		
MATH 407**	Probability Theory	4
MATH 408**	Mathematical Statistics	4
MATH 505a***	Applied Probability	3
MATH 541a***	Introduction to Mathematical Statistics	3
MATH 578a***	DNA and Protein Sequence Analysis	3
MATH 592*	Computational Molecular Biology Internship	3
MATH 650*	Seminar in Statistical Consulting	3
Total units		32-33

*Both tracks

**Biology track

***Mathematical science track

Students are required to demonstrate skill in C++, Java or Perl, and to demonstrate knowledge of molecular biology at the level of BISC 320L. A substantial report on the commercial or laboratory internship must be submitted (for which enrollment in MATH 592 is required).

Master of Arts in Mathematics and Master of Arts in Applied Mathematics
The objective of the Master of Arts program is to prepare students for research, teaching and other professional careers in mathematics and applied mathematics, respectively. In addition to the algebra requirement and differential geometry/topology option for the Master of Arts in Mathematics, the two programs differ in emphasis: the Master of Arts in Mathematics emphasizes the core courses in pure mathematics, and the Master of Arts in Applied Mathematics emphasizes courses in mathematics and affiliated fields that are fundamental in applied mathematics.

Relationship to Ph.D. Programs in Mathematics and in Applied Mathematics
The two year M.A. program is an expansion of the first year of graduate studies in the Ph.D. program in mathematics (respectively, the Ph.D. program in applied mathematics). The program provides a rigorous foundation in mathematics (applied mathematics) while affording students additional time for preparatory training. The comprehensive examinations for the M.A. program can serve as the preliminary qualifying examination for either Ph.D. program, and the written Ph.D. qualifying examinations serve as comprehensive examinations for the corresponding Master of Arts degree.

Requirements for the Master of Arts in Mathematics
At least 24 units are required, including:

REQUIRED COURSES		UNITS
MATH 510ab	Algebra	3-3
MATH 520	Complex Analysis	3
MATH 525a	Real Analysis	3
and one option from A, B, C or D		
(A)		
MATH 535a	Differential Geometry	3
MATH 540	Topology	3
(B)		
MATH 555a	Partial Differential Equations	3
MATH 565a	Ordinary Differential Equations	3
(C)		
MATH 507a	Theory of Probability	3
MATH 541b	Introduction to Mathematical Statistics	3
(D)		
MATH 502ab	Numerical Analysis	3-3

The degree is completed with either departmental examinations (two written examinations selected from the two required components and the optional component) or a thesis demonstrating research ability in pure mathematics (the thesis option requires four additional thesis units selected from MATH 594abz).

Requirements for the Master of Arts in Applied Mathematics
At least 24 units are required, including MATH 525a Real Analysis, and at least three from these courses:

MATH 502a	Numerical Analysis
MATH 502b	Numerical Analysis
MATH 505a	Applied Probability, or
MATH 507a	Theory of Probability
MATH 505b	Applied Probability, or
MATH 506	Stochastic Processes, or
MATH 507b	Theory of Probability
MATH 541a	Introduction to Mathematical Statistics
MATH 541b	Introduction to Mathematical Statistics
MATH 555a	Partial Differential Equations
MATH 565a	Ordinary Differential Equations

Other elective courses, including those from other departments, have to be approved by the program advisor.

The degree is completed with either departmental comprehensive examinations (two examinations, one covering the required component MATH 525a, and the second covering one of the elective MATH courses) or a thesis demonstrating research ability in applied mathematics (the thesis option requires four additional thesis units selected from MATH 594abz).

Doctor of Philosophy in Applied Mathematics

The program requires a maximum effort by the student for a minimum of four years of full-time work.

Application deadline: January 1

Screening Procedure
The screening examination consists of four one-hour examinations covering the subject content of: MATH 502a Numerical Analysis; MATH 505a Applied Probability (or, at the student's discretion, MATH 507a Theory of Probability); MATH 525a Real Analysis; and MATH 541a Introduction to Mathematical Statistics.

The department offers the examinations twice a year, at the end of summer and at the beginning of the spring semester. All four parts of the screening examination must be attempted by the end of the third semester (not counting summer sessions) in the program. The students may take each of the exams as many times as they wish, but all four must be successfully completed by the end of the sixth semester (not counting summer sessions) in the program. The qualifying examination should follow two or three semesters after the successful completion of the screening procedure.

Guidance Committee
No later than at the end of the first semester after passing the screening procedure the student must form a guidance committee consisting of an advisor and four other faculty members, including at least one from another department.

Qualifying Examination
The written portion of the qualifying examination consists of a Ph.D. dissertation proposal. This document should include: introduction, statement of the problem, literature survey, methodology, summary of preliminary results, proposed research, references, appendix (including one or two fundamental references).

The oral portion of the qualifying examination consists of a presentation of the Ph.D. dissertation proposal. The student must demonstrate research potential.

Course Requirements
The student must complete, with no grade lower than B, a minimum of 60 units of courses carrying graduate credit and approved by the guidance committee. These must include MATH 794ab and six courses from the following: MATH 502b, MATH 504ab, MATH 505b, MATH 506, MATH 507b, MATH 509, MATH 520, MATH 525b, MATH 532, MATH 541b, MATH 542L, MATH 545, MATH 555a, MATH 565a, MATH 574, MATH 576, MATH 580, MATH 585.

Transfer of Credit
No transfer of credit will be considered until the screening examination is passed. A maximum of 30 units of graduate work at another institution may be applied toward the course requirements for the Ph.D. A grade of B- (A = 4.0) or lower will not be accepted and, at most, two grades of B will be accepted. A Ph.D. candidate may petition the department for transfer of additional credit, after he or she passes the qualifying examination.

Foreign Language Requirement
The student must demonstrate a reading comprehension of mathematics in one language (other than English) in which there is a significant body of research mathematics (such as Chinese, French, German, Japanese and Russian) by passing a written examination, administered by the Mathematics Department, in translation of mathematical content.

Dissertation
Following passage of the screening examination and approval of a dissertation topic by the guidance committee, the student begins research toward the dissertation under the supervision of the dissertation committee. The primary requirement of the Ph.D. is an acceptable dissertation based on a substantial amount of original research conducted by the student.

Research Areas
Opportunities for research are available from the faculty in several areas of applied mathematics with an emphasis on: computational biology, control theory, financial mathematics, mathematical neurosciences, numerical analysis, optimization, scientific computing, statistical genetics, statistics and stochastic differential equations.

Doctor of Philosophy in Mathematics
The program requires the maximum endeavor by the student for normally a minimum of four years of full-time work.

The student must choose between two concentrations: Pure Mathematics or Pure and Applied Mathematics.

Application deadline: January 1

Screening Procedure
Appointment of a guidance committee and retention in the doctoral program are contingent on passing the preliminary qualifying examination by the end of the second semester. If a student fails the examination, the department, at its discretion, may permit the student to take it again during the third semester of graduate studies.

The preliminary qualifying exam is a written two-hour examination administered by the department. The student must choose between two options: analysis or algebra. Each option approximately covers the content of two one-semester graduate courses, with the precise list of possible topics made available to the student by the department.

Course Requirements
The student must complete with no grade lower than B a minimum of 60 units of courses carrying graduate credit and approved by the guidance committee.

Pure Mathematics Concentration
REQUIRED COURSES

MATH 510a	Algebra
MATH 525a	Real Analysis
MATH 535a	Differential Geometry
MATH 794ab	Doctoral Dissertation

Five courses selected from the following:

MATH 507a	Theory of Probability
MATH 510b	Algebra
MATH 520	Complex Analysis
MATH 525b	Real Analysis
MATH 532	Combinatorial Analysis
MATH 540	Topology
MATH 555a	Partial Differential Equations
MATH 565a	Ordinary Differential Equations

Pure and Applied Mathematics Concentration
REQUIRED COURSES

MATH 502a	Numerical Analysis
MATH 510a	Algebra
MATH 525a	Real Analysis
MATH 794ab	Doctoral Dissertation

Five courses selected from the following:

MATH 502b	Numerical Analysis
MATH 507a	Theory of Probability
MATH 520	Complex Analysis
MATH 525b	Real Analysis
MATH 532	Combinatorial Analysis
MATH 541a	Introduction to Mathematical Statistics
MATH 555a	Partial Differential Equations
MATH 565a	Ordinary Differential Equations

Transfer of Credit
No transfer of credit will be considered until the screening examination is passed. Normally a maximum of 30 units of graduate work at another institution may be applied toward the course requirements for the Ph.D. A grade of B- or lower will not be accepted, and, at most, two grades of B will be accepted. A Ph.D. candidate may petition the department for transfer of additional credit after passing the qualifying examination.

Foreign Language Requirement
The student must demonstrate a reading comprehension of mathematics in two languages (other than English) in which there is a significant body of research mathematics (such as Chinese, French, German, Japanese and Russian) by passing a written examination, administered by the department, in translation of mathematical content.

Qualifying Examination
The written portion of the qualifying examination is comprehensive, consisting of two, two-hour examinations administered by the department. These examinations cover two out of the following five options, excluding the option already selected for the preliminary examination: algebra, analysis, geometry/topology, probability/statistics, differential equations. Each option approximately covers the content of two, one-semester graduate courses, with the precise list of possible topics made available to the students by the department. The selection of options must be approved by the guidance committee.

The oral portion of the qualifying examination covers one topic selected from department research areas in mathematics and approved by the guidance committee. The student must demonstrate research potential in this field.

Dissertation
Following passage of the qualifying examination and approval of a dissertation topic by the guidance committee, the student begins research toward the dissertation under the supervision of the dissertation committee. The primary requirement for the Ph.D. is an acceptable dissertation which is based on a substantial amount of original research conducted by the student.

Research Areas
Opportunities for research are offered in the areas of algebraic geometry, arithmetic geometry, combinatorics, complex geometry, control theory, differential equations, differential geometry, dynamical systems, functional analysis, geometric analysis, group theory, K-theory, nonlinear analysis, number theory, numerical analysis, optimization, probability, representation theory, ring theory and topology.

Courses of Instruction

MATHEMATICS (MATH)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

MATH 040x Basic Mathematical Skills (4, FaSp) Intensive review of arithmetic and algebra. Not available for degree credit. Graded CR/NC.

MATH 108 Precalculus (4, FaSp) Equations and inequalities; functions; graphs; polynomial and rational functions; exponential, logarithmic, and trigonometric function; analytic geometry. *Prerequisite:* MATH 040*x* or passing of placement exam.

MATH 116 Mathematics for the Social Sciences (4, FaSp) Finite mathematics with application to the social sciences; elementary set theory and logic; counting techniques; probability; statistics; matrices and systems of linear equations. Selected topics.

MATH 117 Introduction to Mathematics for Business and Economics (4, FaSp) Functions, graphs, polynomial and rational functions, exponential and logarithmic functions, matrices, systems of linear equations. *Prerequisite:* MATH 040*x* or math placement exam.

MATH 118x Fundamental Principles of the Calculus (4, FaSpSm) Derivatives; extrema. Definite integral; fundamental theorem of calculus. Extrema and definite integrals for functions of several variables. Not available for credit toward a degree in mathematics. *Prerequisite:* MATH 117 or math placement exam.

MATH 125 Calculus I (4, FaSpSm) Limits; continuity, derivatives and applications; antiderivatives; the fundamental theorem of calculus; exponential and logarithmic functions. *Prerequisite:* MATH 108 or math placement exam.

MATH 126 Calculus II (4, FaSpSm) A continuation of MATH 125: trigonometric functions; applications of integration; techniques of integration; indeterminate forms; infinite series; Taylor series; polar coordinates. *Prerequisite:* MATH 125.

MATH 127 Enhanced Calculus I (4, Fa) Applications of integration, review of techniques of integration, infinite sequences and series, some beginning linear algebra, ordinary differential equations. Designed for students who earn a score of 4 or 5 on the Advanced Placement Calculus AB Examination, or a score of 3 or 4 on the BC Examination. Admission to course by departmental approval. (Duplicates credit in MATH 126.)

MATH 200 Elementary Mathematics from an Advanced Standpoint (4, FaSp) An explication of arithmetic and geometry, including the algebraic operations, number bases, plane and solid figures; and coordinate geometry. *Prerequisite:* MATH 040*x* or math placement exam.

MATH 208x Elementary Probability and Statistics (4, FaSp) Descriptive statistics, probability concepts, discrete and continuous random variables, mathematical expectation and variance, probability sampling, Central Limit Theorem, estimation and hypothesis testing, correlation and regression. Not available for major credit to mathematics majors. *Prerequisite:* MATH 118*x* or MATH 125.

MATH 218 Probability for Business (4, FaSpSm) Basic probability, discrete and continuous distributions, expectation and variance, independence. Sampling, estimation, confidence intervals, hypothesis testing. *Prerequisite:* MATH 118*x* or MATH 125.

MATH 225 Linear Algebra and Linear Differential Equations (4, FaSp) Matrices, systems of linear equations, vector spaces, linear transformations, eigenvalues, systems of linear differential equations. *Prerequisite:* MATH 126.

MATH 226 Calculus III (4, FaSp) A continuation of MATH 126; vectors, vector valued functions; differential and integral calculus of functions of several variables; Green's theorem. *Prerequisite:* MATH 126.

MATH 227 Enhanced Calculus II (4, Sp) A continuation of MATH 127; vectors and vector spaces, functions of several variables, partial differential equations, optimization theory, multiple integration; Green's Stokes', divergence theorems. *Prerequisite:* MATH 127 or MATH 225.

MATH 245 Mathematics of Physics and Engineering I (4, FaSp) First-order differential equations; second-order linear differential equations; determinants and matrices; systems of linear differential equations; Laplace transforms. *Prerequisite:* MATH 226.

MATH 370 Applied Algebra (4, Sp) Induction, Euclidean algorithm, factorization, congruence classes, Rings, RSA algorithm, Chinese remainder theorem, codes, polynomials, fundamental theorem of algebra, polynomial multiplication, Fourier transform, and other topics. *Prerequisite:* MATH 226; MATH 225 or MATH 245.

MATH 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

MATH 395 Seminar in Problem Solving (2, max 8) Systematic approach to solving non-standard and competition level math problems on inequalities, infinite sums and products, combinatorics, number theory, and games. *Recommended preparation:* MATH 126.

MATH 400 Foundations of Discrete Mathematics (4, Fa) Methods of proof, predicate calculus, set theory, order and equivalence relations, partitions, lattices, functions, cardinality, elementary number theory and combinatorics. *Prerequisite:* MATH 225 or MATH 226.

MATH 407 Probability Theory (4, FaSp) Probability spaces, discrete and continuous distributions, moments, characteristic functions, sequences of random variables, laws of large numbers, central limit theorem, special probability laws. *Prerequisite:* MATH 226.

MATH 408 Mathematical Statistics (4, Sp) Principles for testing hypotheses and estimation, small sample distributions, correlation and regression, nonparametric methods, elements of statistical decision theory. *Prerequisite:* MATH 407.

MATH 410 Fundamental Concepts of Modern Algebra (4, FaSp) Sets; relations; groups; homomorphisms; symmetric groups; Abelian groups; Sylow's theorems; introduction to rings and fields. *Prerequisite:* MATH 225.

MATH 425ab Fundamental Concepts of Analysis (a: 4, FaSp; b: 4, Sp) *a:* The real number system, metric spaces, limits, continuity, derivatives and integrals, infinite series. *b:* Implicit function theorems, Jacobians, transformations, multiple integrals, line integrals. *Prerequisite:* MATH 226; MATH 425*a* before MATH 425*b*.

MATH 430 Theory of Numbers (4, Fa) Introduction to the theory of numbers, including prime factorization, congruences, primitive roots, N-th power residues, number theoretic functions, and certain diophantine equations. *Prerequisite:* MATH 126.

MATH 432 Applied Combinatorics (4, Sp) Mathematical induction, counting principles, arrangements, selections, binomial coefficients, generating functions, recurrence relations, inclusion-exclusion, symmetric groups, graphs, Euler and Hamiltonian circuits, trees, graph algorithms; applications. *Prerequisite:* MATH 225 or MATH 226.

MATH 434 Geometry and Transformations (4, Fa) Incidence and separation properties of planes and spaces. Geometric inequalities, models of Riemannian and hyperbolic geometry. Isometrics, Jordan measure, constructions, and affine geometry.

MATH 435 Vector Analysis and Introduction to Differential Geometry (4, Sp) Vectors, elements of vector analysis, applications to curves and surfaces, standard material of differential geometry. *Prerequisite:* MATH 226.

MATH 440 Topology (4, Fa) Cardinals, topologies, separation axioms. Compactness, metrizability, function spaces; completeness; Jordan curve theorem. *Recommended preparation:* upper division MATH course.

MATH 445 Mathematics of Physics and Engineering II (4, FaSp) Vector field theory; theorems of Gauss, Green, and Stokes; Fourier series and integrals; complex variables; linear partial differential equations; series solutions of ordinary differential equations. *Prerequisite:* MATH 245.

MATH 450 History of Mathematics (4, Sp) Evolution of mathematical ideas and techniques as seen through a study of the contributions of eminent mathematicians to the formulation and solution of celebrated problems. *Prerequisite:* MATH 225 or MATH 245; *recommended preparation:* upper division MATH course.

MATH 458 Numerical Methods (4, Fa) Rounding errors in digital computation; solution of linear algebraic systems; Newton's method for nonlinear systems; matrix eigenvalues; polynomial approximation; numerical integration; numerical solution of ordinary differential equations. *Prerequisite:* MATH 225 or MATH 245.

MATH 465 Ordinary Differential Equations (4, Sp) Linear systems, phase plane analysis, existence and uniqueness, stability of linear and almost linear systems, Lyapunov's method, nonlinear oscillations, flows, invariant surfaces, and bifurcation. *Prerequisite:* MATH 225 or MATH 245.

MATH 466 Dynamic Modeling (4, Fa) Formulation and study of models arising in population dynamics, growth of plankton, pollution in rivers, highway traffic, morphogenesis and tidal dynamics: stability, oscillations, bifurcations, chaos. The lab will consist of computer simulation of models using commercially available software. *Prerequisite:* MATH 225 or MATH 245.

MATH 467 Theory and Computational Methods for Optimization (4) Methods for static, dynamic, unconstrained, constrained optimization. Gradient, conjugate gradient, penalty methods. Lagrange multipliers, least squares, linear, nonlinear dynamic programming. Application to control and estimation. *Prerequisite:* MATH 226; MATH 225 or MATH 245.

MATH 471 Topics in Linear Algebra (4, Sp) Polynomial rings, vector spaces, linear transformations, canonical forms, inner product spaces. *Prerequisite:* MATH 225; *recommended preparation:* MATH 410.

MATH 475 Introduction to Theory of Complex Variables (4, Sp) Limits and infinite series; line integrals; conformal mapping; single-valued functions of a complex variable; applications. Primarily for advanced students in engineering. *Prerequisite:* MATH 226.

MATH 490x Directed Research (2-8, max 8, FaSpSm) Individual research and readings. Not available for graduate credit.

MATH 500 Graduate Colloquium (2) Lectures directed to mathematics graduate students by faculty of the department and by outside speakers. Problem solving workshops. Graded CR/NC.

MATH 501 Numerical Analysis and Computation (3, Sp) Linear equations and matrices, Gauss elimination, error estimates, iteration techniques; contractive mappings, Newton's method; matrix eigenvalue problems; least-squares approximation, Newton-Cotes and Gaussian quadratures; finite difference methods. *Prerequisite:* linear algebra and calculus.

MATH 502ab Numerical Analysis (a: 3, Fa; b: 3, Sp) Computational linear algebra; solution of general nonlinear systems of equations; approximation theory using functional analysis; numerical solution of ordinary and partial differential equations. *Prerequisite:* MATH 425*a* and MATH 471.

MATH 503 Stochastic Calculus for Finance (3, Sp) Stochastic differential equations. Bellman equation. Applications to option pricing. Kolmogorov equations and derivative securities. State prices, equivalent martingale measure. Optimal stopping, American options. Exotic options. *Prerequisite:* MATH 506 or MATH 507*a*.

MATH 504ab Numerical Solution of Ordinary and Partial Differential Equations (a: 3, Sp; b: 3, Fa) *a:* Initial value problems; multistep methods, stability, convergence and error estimation, automatic stepsize control, higher order methods, systems of equations, stiff problems; boundary value problems; eigenproblems. *Prerequisite:* MATH 501 or MATH 502*a* or departmental approval. *b:* Computationally efficient schemes for solving PDE numerically; stability and convergence of difference schemes, method of lines; fast direct and iterative methods for elliptic equations. *Prerequisite:* MATH 501 or MATH 502*a*.

MATH 505ab Applied Probability (a: 3, Fa; b: 3, Sp) *a:* Populations, permutations, combinations, random variables, distribution and density functions conditional probability and expectation, binomial, Poisson, and normal distributions; laws of large numbers, central limit theorem. *Prerequisite:* departmental approval. *b:* Markov processes in discrete or continuous time; renewal processes; martingales; Brownian motion and diffusion theory; random walks, inventory models, population growth, queuing models, shot noise.

MATH 506 Stochastic Processes (3) Basic concepts of stochastic processes with examples illustrating applications; Markov chains and processes; birth and death processes; detailed treatment of 1-dimensional Brownian motion. *Prerequisite:* MATH 407.

MATH 507ab Theory of Probability (a: 3, Fa; b: 3, Sp) *a:* Probability spaces; distributions and characteristic functions; laws of large numbers, central limit problems; stable and infinitely divisible laws; conditional distributions. *Prerequisite:* MATH 525*a* or MATH 570. *b:* Dependence, martingales, ergodic theorems, second-order random functions, harmonic analysis, Markov processes.

MATH 508 Filtering Theory (3) Theory of random differential equations and stochastic stability; optimum linear and nonlinear filtering, with discussion of asymptotic behavior of filter. *Prerequisite:* MATH 507*a*.

MATH 509 Stochastic Differential Equations (3) Brownian motion, stochastic integrals, the Ito formula, stochastic differential equations, analysis of diffusion processes, Girsanov transformation, Feynmann-Kac formula, applications. *Prerequisite:* MATH 505*ab* or MATH 507*ab*.

MATH 510ab Algebra (a: 3, Fa; b: 3, Sp) *a:* Group Theory: Isomorphism theorems, group actions, Sylow's theorems, simple and solvable groups; Field Theory: Galois correspondence, radical extensions, algebraic and transcendental extensions, finite fields. *b:* Commutative Algebra: Integrality, Hilbert Basis theorem, Hilbert Nullstellensatz; Modules: modules over PIDs, chain conditions, tensor products; Noncommutative Rings: Jacobson radical, Artin-Wedderburn theorem, Maschke's theorem. *Prerequisite:* MATH 410, MATH 471.

MATH 511abL Data Analysis (4-4) (Enroll in PM 511*abL*)

MATH 512 Financial Informatics and Simulation (Computer Labs and Practitioner Seminar) (3, FaSp) Experimental laboratory trading for financial markets using double auctions: handling statistical packages for data analysis. Practical training in virtual market environments, using financial trading system software.

MATH 520 Complex Analysis (3, Sp) Theory of analytic functions — power series and integral representations, calculus of residues, harmonic functions, normal families, approximation theorems, conformal mapping, analytical continuation. *Prerequisite:* MATH 425*ab*.

MATH 525ab Real Analysis (a: 3, Fa; b: 3, Sp) *a:* Measure and integration over abstract measure spaces, Radon-Nikodym theorem, Fubini's theorem, convergence theorems, differentiation. *Prerequisite:* MATH 425*ab*. *b:* Metric spaces, contraction principle, category, Banach spaces, Riesz representation theorem, properties of Lp Hilbert spaces, orthogonal expansions, Fourier series and transforms, convolutions. *Prerequisite:* MATH 525*a*.

MATH 532 Combinatorial Analysis (3, Fa) Inversion formulas, generating functions and recursions, partitions, Stirling numbers, distinct representatives, Ramsey's theorem, graph theory, block designs, difference sets, finite geometrics, Latin squares, Hadamard matrices.

MATH 533 Combinatorial Analysis and Algebra (3, Sp) Advanced group theory; algebraic automata theory; graph theory; topics in combinatorial analysis.

MATH 535ab Differential Geometry (a: 3, Fa; b: 3, Sp) Elementary theory of manifolds, Lie groups, homogeneous spaces, fiber bundles and connections. Riemannian manifolds, curvature and conjugate points, second fundamental form, other topics. *Prerequisite:* MATH 440.

MATH 540 Topology (3, Sp) Initial and final topologies, function spaces, algebras in C(Y), homotopy, fundamental group, fiber spaces and bundles, smashes, loop spaces, groups of homotopy classes, cw-complexes. *Prerequisite:* MATH 440.

MATH 541ab Introduction to Mathematical Statistics (a: 3, Sp; b: 3, Fa) *a:* Parametric families of distributions, sufficiency. Estimation: methods of moments, maximum likelihood, unbiased estimation. Comparison of estimators, optimality, information inequality, asymptotic efficiency. EM algorithm, jackknife and bootstrap. *Prerequisite:* MATH 505*a* or MATH 407 or MATH 408. *b:* Hypothesis testing, Neyman-Pearson lemma, generalized likelihood ratio procedures, confidence intervals, consistency, power, jackknife and bootstrap. Monte Carlo Markov chain methods, hidden Markov models. *Prerequisite:* MATH 541*a*.

MATH 542L Analysis of Variance and Design (3, Sp) Least squares estimation in the linear model, analysis of variance and covariance, F-test, multiple comparisons, multiple regression, selection of variables; introduction to experimental design. Includes laboratory. *Prerequisite:* MATH 225, MATH 226, and MATH 208*x*.

MATH 543L Nonparametric Statistics (3) Distribution-free methods for comparisons of two or more samples, tests of randomness, independence, goodness of fit; classification, regression. Comparison with parametric techniques. Includes laboratory. *Prerequisite:* MATH 226, MATH 208*x*.

MATH 544L Multivariate Analysis (3) (Enroll in PM 544*L*)

MATH 545L Introduction to Time Series (3, Fa) Transfer function models; stationary, nonstationary processes; moving average, autoregressive models; spectral analysis; estimation of mean, autocorrelation, spectrum; seasonal time series. Includes laboratory. *Prerequisite:* MATH 225, MATH 226, and MATH 208*x*.

MATH 546 Statistical Computing (3) (Enroll in PM 546)

MATH 547 Methods of Statistical Inference (3, Fa) Statistical decision theory: game theory, loss and risk functions; Bayes, minimax, admissible rules; sufficiency, invariance, tests of hypotheses, optimality properties. Inference for stochastic processes. *Prerequisite:* MATH 407 or MATH 408.

MATH 548 Sequential Analysis (3) Sequential decision procedures: sequential probability-ratio tests, operating characteristic, expected sample size, two-stage procedures, optimal stopping, martingales, Markov processes; applications to gambling, industrial inspection. *Prerequisite:* MATH 407 or MATH 408.

MATH 550 Sample Surveys (3, Sp) Theory of sampling and design of sample surveys; bias and precision; finite populations; stratification; cluster sampling; multistage, systematic sampling; non-sampling errors. *Prerequisite:* MATH 208*x*.

MATH 555ab Partial Differential Equations (a: 3, Fa; b: 3, Sp) Second-order partial differential equations of elliptic, parabolic, and hyperbolic type; in particular, potential and wave equations. *Prerequisite:* MATH 425*ab*.

MATH 565ab Ordinary Differential Equations (a: 3, Fa; b: 3, Sp) Existence, uniqueness and continuation of solutions, differential inequalities, linear systems, Sturm-Liouville theory, boundary value problems, Poincare-Bendixson theory, periodic solutions, perturbations, stability, fixed point techniques. *Prerequisite:* MATH 425*ab*.

MATH 570ab Methods of Applied Mathematics (a: 3, FaSp; b: 3, Sp) *a:* Metric spaces, fundamental topological and algebraic concepts, Banach and Hilbert space theory. *Prerequisite:* MATH 425*a* or departmental approval. *b:* Hilbert spaces, normal, self-adjoint and compact operators, geometric and spectral analysis of linear operators, elementary partial differential equations. *Prerequisite:* MATH 570*a*.

MATH 572 Applied Algebraic Structures (3, Fa) Elementary predicate logic, model theory, axiomatic set theory; relations, functions, equivalences; algebraic and relational structures; graph theory; applications of lattices, Boolean algebras; groups, rings, field.

MATH 574 Applied Matrix Analysis (3, Fa) Equivalence of matrices; Jordon canonical form; functions of matrices; diagonalization; singular value decomposition; applications to linear differential equations, stability theory, and Markov processes.

MATH 576 Applied Complex Analysis and Integral Transforms (3, Fa) Review of basic complex analysis; integral transforms of Laplace, Fourier, Mellin, and Hankel; applications to solutions of ordinary and partial differential equations; Wiener-Hopf technique. *Prerequisite:* MATH 475 or MATH 520.

MATH 577ab Computational Molecular Biology Laboratory (a: 2, Sp; b: 2, Fa) (Enroll in BISC 577ab)

MATH 578ab Computational Molecular Biology (3-3, FaSp) Applications of the mathematical, statistical and computational sciences to data from molecular biology. *a:* Algorithms for genomic sequence data: sequence and map assembly and alignment, RNA secondary structure, protein structure, gene-finding, and tree construction. *Prerequisite:* CSCI 570; *recommended preparation:* familiarity with the concepts of basic molecular biology as covered in BISC 320. *b:* Statistics for genomic sequence data: DNA sequence assembly, significance of alignment scores, hidden Markov models, genetic mapping, models of sequence evolution, and microarray analysis. *Prerequisite:* MATH 505*a*, MATH 541*a*.

MATH 580 Introduction to Functional Analysis (3) Basic functional analysis in Banach and Hilbert spaces. Weak topologies, linear operators, spectral theory, calculus of vector-valued functions. Banach algebras. *Prerequisite:* MATH 525*ab*.

MATH 585 Mathematical Theory of Optimal Control (3, Fa) Deterministic control: calculus of variations; optimal control; Pontryagin principle; multiplier rules and abstract nonlinear programming; existence and continuity of controls; problem of Mayer; dynamic programming. *Prerequisite:* MATH 570 and MATH 525*a*.

MATH 590 Directed Research (1-12, FaSpSm) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

MATH 592 Computational Molecular Biology Internship (3) Industrial or genome-centered internship for students in the Computational Molecular Biology master's program. Real-world experience in applications. Open to M.S., Computational Molecular Biology students only.

MATH 594abz Master's Thesis (2-2-0, FaSpSm) Credit on acceptance of thesis. Graded IP/CR/NC.

MATH 599 Special Topics (2-4, max 8, FaSpSm) Course content will be selected each semester to reflect current trends and developments in the field of mathematics.

MATH 600 Topics in Numerical Analysis (3, max 12)

MATH 601 Optimization Theory and Techniques (3, SpSm) Necessary and sufficient conditions for existence of extrema with equality constraints; gradient methods; Ritz methods; eigenvalue problems; optimum control problems; inequality constraints; mathematical programming. *Prerequisite:* MATH 502*ab*.

MATH 602 Galerkin Approximation Methods in Partial Differential Equations (3) Galerkin methods of approximating solutions of elliptic boundary value problems in one and several dimensions; includes the use of spline functions and triangularizations.

MATH 605 Topics in Probability (3, max 12)

MATH 610 Topics in Algebra (3, max 12)

MATH 612 Topics in Commutative Ring Theory (3, max 12) Localization, structure of Noetherian rings, integral extensions, valuation theory, graded rings, characteristic functions, local algebra, dimension theory. *Prerequisite:* MATH 510*ab*.

MATH 613 Topics in Noncommutative Ring Theory (3, max 12) Jacobson radical, nil radical, nil rings and nil-potence, chain conditions, polynomial identity and group rings. Goldie theorems, current research. *Prerequisite:* MATH 510*ab*.

MATH 620 Topics in Complex Analysis (3, max 12)

MATH 625 Topics in Real Analysis (3, max 12)

MATH 630 Topics in Number Theory (3, max 12)

MATH 635 Topics in Differential Geometry (3, max 12) Topics to be chosen from the following: geometry of complex manifolds, relations between topology and curvature, homogeneous spaces, symmetric spaces, geometry of submanifolds. *Prerequisite:* MATH 535*ab*.

MATH 641 Topics in Topology (3, max 12)

MATH 650 Seminar in Statistical Consulting (3)

MATH 665 Topics in Ordinary Differential Equations (3, max 12)

MATH 680 Nonlinear Functional Analysis (3) Calculus in Banach spaces, degree theory, fixed point theorems. Study of compact, monotone, accretive and nonexpansive operators. *Prerequisite:* MATH 580.

MATH 681 Selected Topics in Functional Analysis (3, max 12) Course content will vary with professor and academic year offered. It will include topics of current interest in both linear and nonlinear functional analysis and their applications.

MATH 685 Topics in Mathematical Control Theory (3, max 12)

MATH 689 Topics in Mathematical Physics (3, max 12)

MATH 700 Seminar in Numerical Analysis (3)

MATH 705 Seminar in Probability (3)

MATH 710 Seminar in Algebra (3)

MATH 725 Seminar in Analysis (3)

MATH 730 Seminar in Number Theory (3)

MATH 735 Seminar in Differential Geometry (3)

MATH 740 Seminar in Topology (3)

MATH 761 Seminar in Programming and Computability (3)

MATH 765 Seminar in Ordinary Differential Equations (3)

MATH 780 Seminar in Functional Analysis (3)

MATH 790 Research (1-12, FaSpSm) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

MATH 794abcdz Doctoral Dissertation (2-2-2-2-0, FaSpSm) Credit on acceptance of dissertation. Graded IP/CR/NC.

Multidisciplinary Activities

Richard Fliegel, Ph.D., ***Associate Dean, Undergraduate Programs, USC College***
(213) 740-2961
Email: fliegel@usc.edu

Multidisciplinary Activities (MDA) courses are developed and taught by faculty from more than one program, department and/or school. These courses exist because of the college's interest in supporting interdisciplinary teaching and research. A student's transcript indicates enrollment in a multidisciplinary activities course.

Students who enroll in MDA courses share a common interest in the subject matter, but are not necessarily majors in those disciplines. These courses can be used as electives for certain degree requirements and, when indicated by the "g" suffix, for general education credit.

Collaborative Learning Projects (CLP) and Individual Programs of Study (IPOS)
See Learner Centered Curricula, page 381.

Courses of Instruction

MULTIDISCIPLINARY ACTIVITIES (MDA)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

MDA 100abcd Introduction to the Health Professions (1-1-1-1, FaSp) An introduction to the health professions, through lectures, discussions, clinical experiences, and visits to health care delivery sites; relationships with other clinicians and the community. Departmental approval required. Graded CR/NC.

MDA 101x Health Professions: Prospects and Preparation (1, Sp) Presentations by health professionals, introduced by faculty members from relevant academic units and followed by discussion with the speakers. Not available for degree credit. Graded CR/NC. *Recommended preparation:* BISC 120*L* or BISC 220*L*; CHEM 150*aL*.

MDA 105g Cultural Forms and Values I (4, FaSp) Norms and patterns of civilizations associated with the Greco-Roman and European traditions and the legacy of those traditions in North America.

MDA 125Lg Scientific Principles (4, FaSp) Fundamental principles underlying a body of scientific knowledge and their evolution; the nature of scientific inquiry; how scientific knowledge is obtained and evaluated. A field experience or practical component required.

MDA 140 Practicum in Multimedia Authorship (2, FaSp) Introduction to the expressive potential of multimedia as a critical and creative tool, supplementing traditional forms of academic work. Requires concurrent enrollment in a designated course. Graded CR/NC.

MDA 155g Cultural Forms and Values II (4, FaSp) Cultural norms and patterns of civilizations associated with Africa, Asia, Latin America, the Middle East, Native America, and elsewhere, alternative to those of the Greco-Roman and European traditions.

MDA 165g Social Inquiry (4, FaSp) Analyses of compelling local, national, and/or international issues; analytical tools examined systematically in a broad range of social phenomena. *Concurrent enrollment:* WRIT 140.

MDA 167gm Marginal Groups in America (4, Fa) Sociological and historical analysis of marginal populations in American society, including racial and ethnic minorities, teenage mothers, drug abusers, criminals, and the mentally ill. *Concurrent enrollment:* WRIT 140.

MDA 170g La Frontera: The U.S.-Mexico Borderlands (4) Provides student with a multidisciplinary understanding of the U.S./Mexico border region. Topics to be covered include: space and place, internationalization, physical environment, gender relations and culture. *Concurrent enrollment:* WRIT 140.

MDA 175Lg Science and Technology (4, FaSp) The nature of science and technology, based on a focused study of a single area of research; scientific principles, their technological applications, and social significance.

MDA 200Lg The Cutting Edge: From Basic Science to the Marketplace (4, Sp) An introduction to the basic sciences of physics, chemistry, biology, and geology, examining the fundamental concepts, experimental approaches, and technological applications. Course will show the interrelationships among the fields and societal ramifications of these cutting edge technologies. (Duplicates credit in MDA 125.)

MDA 205g Cities and Civilization (4, FaSp) Origins of cities, patterns of migration and resettlement, civic identities and the invention of public culture, from ancient Rome to contemporary Los Angeles.

MDA 250 Internship for Liberal Arts: Work and Career – Theory and Practice (1-2, max 4, FaSpSm) Students explore different understandings of work and career in American society while testing theories in an actual work setting. *Prerequisite:* departmental approval.

MDA 310 Introduction to Peace and Conflict Studies (4, Sp) (Enroll in IR 310.)

MDA 325 Case Studies in Modern Leadership (4, FaSp) Study of a single leader or small set of leaders, including the strengths and weaknesses that distinguish them and the cultural forces that nurture them.

MDA 365 The Art and Adventure of Leadership (4, Sp) Areas of knowledge and kinds of competencies that are fundamental to the study and practice of leadership in a variety of settings.

MDA 399ab Team Research Communities (4-4, FaSp) Cross-disciplinary inquiry in the liberal arts. *a:* Research methodologies. *b:* Individual student and group projects contributing to the team's collaborative report.

MDA 450 Individual Program of Study (4-18, max 18, FaSpSm) An individual educational project approved by a faculty committee, combining directed research with internships, service learning, artistic or literary production, and/or other relevant educational activities. Open only to students with sophomore, junior or senior standing.

MDA 460 Collaborative Learning Project (4-8, max 8, FaSpSm) A project approved by a faculty committee, requiring students to collaborate on research or an original work in the literary, plastic, or performing arts. Open only to students with sophomore, junior or senior standing. Graded CR/NC.

MDA 501 Introduction to Visual Studies: Methods and Debates (4) A critical introduction to the field of visual studies focusing on interdisciplinary approaches to images, objects, and visual technologies as well as key texts and interpretive debates. Students must be enrolled in a Ph.D. program at USC.

MDA 599 Special Topics (2-4, max 8, Fa) The multidisciplinary, team-taught seminar addresses issues at the intersection of literary, visual, and material culture. The faculty team and specific topics studied will change each time the course is offered.

Multimedia Scholarship

Honors in Multimedia Scholarship
This program offers qualified undergraduate students an opportunity to approach their discipline(s) of study through the critical application of multimedia expression and scholarship. The student experience will be characterized by smaller classes taught by leading faculty members and enriched by a program of lecture series, visiting scholars, symposia and conferences. For complete program requirements, see the Interdisciplinary Programs section, page 103.

Neuroscience

Hedco Neurosciences Building 120
(213) 740-6090
FAX: (213) 740-5687
Email: wmcclure@usc.edu
www.usc.edu/dept/LAS/biosci/ngp

Director: Norberto Grzywacz, Ph.D.

Participating Faculty: See Biological Sciences, Computer Science, Biomedical Engineering, Philosophy, Psychology, Engineering, Gerontology, Medicine and Pharmacy in this catalogue.

Bachelor of Arts in Neuroscience
Coordinator: William O. McClure

Undergraduate Advisor: Joon Kim, yiljoonk@college.usc.edu

Grade Requirements
A grade of C- or higher is required to count toward major requirements.

CORE REQUIREMENTS		UNITS
BISC 220L	General Biology: Cell Biology and Physiology	4
BISC 421	Neurobiology	4
PSYC 100	Introduction to Psychology	4
PSYC 274*	Statistics I	4
PSYC 326	Behavioral Neuroscience	4

*An equivalent course may be substituted.

Three courses from each of the following lists are required.

CELLULAR, MOLECULAR AND SYSTEMS (CMS)		UNITS
ANTH 306	Primate Social Behavior	4
ANTH 308	Origins and Evolution of Human Behavior	4
ANTH 406	Theory and Method in Biological Anthropology	4
BISC 307L	General Physiology	4
BISC 320L	Molecular Biology	4
BISC 325	Genetics	4
BISC 330L	Biochemistry	4
BISC 411	Cell Biology	4
BISC 450L	Principles of Immunology	4
BISC 480	Developmental Biology	4
GERO 310	Physiology of Aging	4
GERO 414	Neurobiology of Aging	4
HP 320	Biological and Behavioral Basis of Disease	4
NEUR 524	Advanced Neurosciences I	4
PSYC 547	Functional Neuroanatomy	4
PSYC 548L	Functional Neuroanatomy Lab	2
PT 529	Life Span Motor Control	4
PT 534L	Neuroanatomy	4
PT 569	Fundamentals of Neuroscience	4

BEHAVIOR AND COGNITION (BC)		UNITS
ANTH 373	Magic, Witchcraft and Healing	4
CSCI 460	Introduction to Artificial Intelligence	3
GERO 320	Psychology of Adult Development	4

GERO 415	Neuroaffective Disorders of Aging	4
HP 300	Theoretical Principles of Health Behavior	4
LING 301	Introduction to Phonetics and Phonology	4
LING 302	Introduction to Syntax and Semantics	4
LING 375	Sociolinguistics	4
NEUR 531	Molecular and Cellular Neurobiology	4
NEUR 532	Systems and Behavioral Neurobiology	3
PHIL 462	Philosophy of Mind	4
PHIL 465	Philosophy of Language	4
PSYC 540	Cognitive Neuroscience	4
PSYC	Any course except those listed in CMS above	4
SOCI 303	Sociology of Human Development	4
SOCI 305	Sociology of Childhood	4

Honors Program in Neuroscience
An honors program is available to outstanding students already pursuing a B.A. degree in Neuroscience. This program offers students an opportunity to participate in undergraduate research, experience in writing an honors thesis summarizing the completed research and experience in an honors seminar. Honors students must register for NEUR 490x Directed Research, or an equivalent course in another department. NEUR 490x can replace one of the courses from either of the two lists above. Honors students are also required to take one semester of NEUR 494x or an equivalent course in addition to fulfilling all the requirements for the B.A. degree. Approval from the program in neuroscience is required before credit will be given for either of these two research-related courses in another department. The student earning honors in neuroscience must have a minimum overall GPA of 3.5 at graduation. This program leads to the designation on the transcript of Bachelor of Arts in Neuroscience with Honors.

Minor in Neuroscience
Coordinator: William O. McClure, Ph.D.

The neuroscience minor is designed to acquaint students with a broad range of the problems and opportunities available in the study of the brain and the mind. The minor requires a core course, normally BISC 230, which will provide beginning knowledge of the biological aspects of brain function. In addition, four upper division courses (16 units) are required. These courses will be chosen in consultation with the advisors of the minor, and must constitute a logical area of study of some aspect of the neurosciences. Appropriate departments include but are not limited to Anthropology, Computer Science, Gerontology, Linguistics, Philosophy and Psychology. At least one course must include a research component. Directed Research may be used to satisfy the requirement of one of the upper division courses.

Research in appropriate laboratories is encouraged but not required for completion of the minor. A grade of no less than B must be earned in each of the courses used to satisfy the neuroscience minor.

Application forms may be obtained from College Academic Services, CAS 100, or from the Neuroscience Program, Hedco Neurosciences Building 120.

Master of Science in Neuroscience
Coordinator: Norberto Grzywacz, Ph.D.

Enrollment of graduate students as master's degree candidates is not encouraged and is reserved for special, terminal circumstances. To satisfy the requirements for the M.S. degree the student must take all the course work required of Ph.D. students for a minimum of 24 units. Completion of the degree requires the submission of a short, formal paper of original research that is approved by three members of the neuroscience graduate program faculty. Students must also satisfy residency and other requirements of the Graduate School.

Doctor of Philosophy in Neuroscience
Coordinator: Norberto Grzywacz, Ph.D.

Application deadline: January 1

Breadth of interests and training are major features of the graduate program in neuroscience. Wide and varied skills in many research areas characterize the faculty of the program. Close contact between faculty and students is considered of major importance in this highly interdisciplinary field.

Training is given in several areas of specialization: behavioral and systems neuroscience, cellular and molecular neurobiology, cognitive neuroscience, computational neuroscience, neuroengineering and neuroscience of aging and development.

Applicants should normally have defined an interest in one or two specializations. A final choice of the specialization will be made during the first year.

Admission Requirements
A baccalaureate degree in a field relevant to the student's graduate goals is required. Appropriate fields would include neuroscience, biology, chemistry, computer science, linguistics, psychology and many areas of engineering. Undergraduate study should provide evidence of proficiency in mathematics, including statistics. Students planning to enter the specialization in computational and mathematical neuroscience should have taken course work in calculus and, where possible, linear algebra and computer programming. Applicants who are accepted with minor deficiencies are expected to correct these during the first year.

Applications require forms from both the university and the program. These may be obtained from: Coordinator, Graduate Program in Neuroscience, University of Southern California, Los Angeles, CA 90089-2520.

Degree Requirements
These degrees are awarded under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Advisory Committee
The student will be advised during the first year by the Graduate Affairs Committee. As soon as the student has selected a specialization, an Advisory Committee of appropriate faculty will be appointed. This committee will be chaired by the thesis advisor, when chosen. The purpose of the Advisory Committee is to help the student in the selection of courses and research; to monitor the student's progress; to insure preparation for the qualifying examination; and to administer that examination.

Course Requirements
A minimum of 60 units is required, consisting of formal courses, seminars and research credits. At least 24 of the 60 units are to be formal graduate course work (lecture or seminar courses). During the first year the student is expected to complete the core courses in neuroscience (NEUR 524), one key course, NEUR 538 Neuroscience Ethics and Professionalization, and two semesters of NEUR 539. Other courses in the area of specialization may also be taken in the first year and will be taken in subsequent years.

Core Course: NEUR 524 Advanced Overview of Neuroscience (4 units), will be taken by all students in the fall of their first year to provide an integrated multilevel view of neuroscience. To take the core course, students should have mastered the material currently taught in BISC 421. (Students will be expected to review a detailed syllabus and reading list for BISC 421 to identify their level of knowledge prior to their arrival at USC and will receive advice at Orientation on whether to take BISC 421 or read recommended material to remedy their deficiencies.)

Key Courses: All students will be required to complement their thesis-directed studies with a "breadth with depth" requirement by taking three key courses, one each from three of the four tracks listed below. Each key course will be for 3 or 4 units. (At least one of these courses will serve to advance thesis-related study as well.)

CELLULAR, MOLECULAR AND DEVELOPMENTAL NEUROSCIENCE TRACK

NEUR 531	Molecular and Cellular Neurobiology	4
BISC 426	Principles of Neural Development	4

COGNITIVE NEUROSCIENCE TRACK

PSYC 540	Cognitive Neuroscience	4

COMPUTATIONAL NEUROSCIENCE AND NEUROENGINEERING TRACK

BME 575L	Computational Neuroengineering	3
NEUR 535	Brain Theory and Artificial Intelligence	3

SYSTEMS AND BEHAVIORAL NEUROSCIENCE TRACK

NEUR 532	Systems and Behavioral Neurobiology	3

All students are required to take NEUR 538 Neuroscience Ethics and Professionalization (1 unit).

It is required that all neuroscience Ph.D. students demonstrate competence in statistics in fulfillment of their Ph.D. requirements.

Qualifying Examination
The qualifying examination concentrates on the student's ability to demonstrate a grasp of the major area of interest chosen and its relation to other areas of training offered in the program. The examination is partly written and partly oral and is designed to test the student's ability to meet the demands of the profession.

Dissertation
An acceptable dissertation based on completion of an original investigation is required. The candidate must defend an approved draft of the dissertation in an oral examination.

Courses of Instruction

NEUROSCIENCE (NEUR)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

NEUR 426 Principles of Neural Development (4, Sp) (Enroll in BISC 426)

NEUR 490x Directed Research (2-4, max 8, FaSpSm) Individual research and readings. Not available for graduate credit. Departmental approval.

NEUR 494x Honors Thesis (2, FaSp) Not available for graduate credit. Programmatic approval.

NEUR 524 Advanced Overview of Neuroscience (4, Fa) Study of the nervous system at multiple levels through the analysis of four themes: motor control; emotion, motivation, and decision-making; memory and learning; and vision. Open only to graduate students. *Prerequisite:* BISC 421.

NEUR 531 Molecular and Cellular Neurobiology (4, Fa) Introduces fundamental principles of advanced molecular and cellular neurobiology including proteins and nucleic acids, cell biology of neurons and glia, synaptic transmission and neuronal signaling. Open only to graduate students.

NEUR 532 Systems and Behavioral Neurobiology (3, Fa) Systems and behavioral neurobiology: hierarchical mechanisms controlling behavior, experimental techniques; perceptual (visual, auditory, somatosensory) systems; sensorimotor systems; motivated behavior; learning, memory and adaptation. Open only to graduate students. *Prerequisite:* NEUR 524.

NEUR 533 Cognitive Neuroscience (4, Sp) (Enroll in PSYC 540)

NEUR 534L Computational Neuroengineering (3) (Enroll in BME 575L)

NEUR 535 Brain Theory and Artificial Intelligence (3) (Enroll in CSCI 564)

NEUR 538 Neuroscience Ethics and Professionalization (1, Fa) Exposes students to ethical issues in scientific research, especially for neuroscience; scientific integrity and professional roles for the academician and neuroscientist. Open only to graduate students.

NEUR 539 Seminar in Neurobiology (1, max 4, FaSp) (Duplicates credit in former BISC 539.)

Ocean Sciences

Zumberge Hall of Science 117
(213) 740-6106
FAX: (213) 740-8801
Email: waite@usc.edu
www.usc.edu/dept/earth

Director: Douglas E. Hammond, Ph.D.

Participating Faculty: See Biological Sciences, Earth Sciences, Geography and Engineering in this catalogue.

Applications for the Ocean Sciences program should be routed through the affiliated departments and a separate letter sent to the Ocean Sciences Director, Douglas E. Hammond, USC Earth Sciences, Los Angeles, CA 90089-0740.

Degree Programs

The Graduate Program in Ocean Sciences (GPOS) provides interdisciplinary education and training to prepare professional ocean scientists for careers in academia, industry, and state and federal government. Students develop the ability to identify and solve significant problems in ocean sciences by using their training in several disciplines. They develop the ability to formulate and test hypotheses and integrate information and concepts about how the earth-ocean system is structured and how it functions. Training also is provided to develop skills in oral and written communication of technical and scientific information. Both M.S. and Ph.D. degree programs are offered; both require preparation of a thesis (M.S.) or dissertation (Ph.D.).

Admission Requirements

All rules and regulations described in the Graduate School section of this catalogue (page 92) and Graduate Admission (page 76) apply to students in the GPOS.

Official acceptance by the GPOS Admissions Committee is based on the recommendation of faculty from an affiliated department. Acceptance depends upon the applicant's letters of recommendation, research experience, intended area of research, personal interview (whenever possible), and the availability of a faculty member willing to advise and sponsor the applicant.

A B.S. or B.A. degree in an appropriate field of natural science, engineering or mathematics is required for admission.

It is expected that applicants to the GPOS will have attained a scholarship average of at least "B" (3.0 GPA on a 4.0 scale) preferably in the natural sciences or mathematics. Applicants must have taken the GRE aptitude test (verbal and quantitative). Successful applicants typically score in excess of 600 on both verbal and quantitative parts of the exam.

Applicants should contact the GPOS office by mail or phone for an admission package. The GPOS admits students for both the fall and spring semesters; however, applicants for assistantships are encouraged to apply for the fall semester.

Graduate Degrees

Degree Requirements

Advanced degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Master of Science in Ocean Sciences

The program does not accept applicants for a Master of Science degree in ocean sciences. The M.S. degree is intended only as a transitional degree in the process of completing requirements for the Ph.D. in ocean sciences.

Research Tool Requirements
None required.

Course Requirements
The M.S. degree in Ocean Sciences requires at least 24 units of course work, including two core courses (OS 512 and 582). Four thesis units (OS 594) are also required. At least 16 units of course work must be at the 500-level or higher; no more than six units can be directed research (OS 590); a maximum of four units with superior grades in approved course work may be transferred from an accredited graduate school. Students are required to maintain an overall GPA of 3.0 in all graduate work.

Thesis
Students should arrange for the appointment of a thesis advisor and committee after the first semester, or at the latest, after the first year of graduate work. The thesis committee should consist of the advisor plus two other faculty members, all of whom are generally selected from GPOS faculty. Once the committee is arranged, the student may make formal application to the Graduate School for the M.S. degree.

Doctor of Philosophy in Ocean Sciences

Research Tool Requirements
To be determined by guidance committee.

Course Requirements
The Ph.D. degree in Ocean Sciences requires at least 27 units of formal course work (including seminars) of the 60 total units needed. Two core courses are required (OS 512, OS 582). No more than 15 units of 400-level course work may be applied. A maximum of 30 units may be transferred from an accredited graduate school.

Students are required to maintain an overall GPA of 3.0 in all graduate work.

Students may request permission to take the Ph.D. qualifying examination on completion of 24 units of course work, including two core courses in Ocean Sciences.

Screening Procedure
Students in the Ph.D. program must pass the screening procedure before their 25th unit of graduate credit. Screening consists of a review of the student's progress and is usually done by the GPOS Review Committee following a written recommendation by the student's advisor(s). Screening occurs at the end of each semester.

Guidance Committee
The doctoral guidance committee is formed after the student has passed the screening procedure. The committee is appointed by the department with the advice of the student's research advisor. The five-member committee consists of the advisor, a minimum of three other members from the GPOS faculty, and one additional tenure-track faculty member. The committee must include faculty members from more than one academic department. A tenure-track faculty member must serve as research advisor or co-advisor. The committee consults with the student, recommends an appropriate program of study and administers written and oral qualifying examinations.

Qualifying Examination
The student may request permission to take the Ph.D. qualifying examination upon completion of 24 units of course work, including two core courses in ocean sciences. The qualifying examination consists of a written and an oral part, both parts prepared, conducted and evaluated by the student's examination committee. The written examination will consist of a number of questions given on two consecutive days. Questions will be comprehensive in scope with respect to the student's chosen area of specialization and will be designed to test the student's conceptual, analytical and integrative ability and preparation.

The written part of the qualifying examination must be taken before the oral examination. The oral examination will be in the area of the student's intended research and will be based on a research project selected and developed by the student into a written proposition. The oral examination will be conducted and evaluated by the student's examination committee. The oral examination must be taken within one month of the written examination.

Defense of the Dissertation
After the student has passed the qualifying examination, the guidance committee recommends to the Graduate School that the student be admitted to candidacy for the Ph.D. degree. Following admission to candidacy the student must register for OS 794 Dissertation every semester, except summers, until the degree is awarded.

Once the qualifying examination is passed, the student is required, as soon as possible, to appoint a dissertation committee, using an appointment of committee form which can be found on the Graduate School Web site (*www.usc.edu/dept/GRADSCHL*). All or some of the guidance committee may be nominated. Until a dissertation committee is appointed, the guidance committee will have responsibility for the student's program of study. The student must undertake an original investigation of a problem in ocean sciences. The topic must be approved by the student's dissertation committee and will usually be based on the written proposition presented in the qualifying examination.

A dissertation based on the student's research must be approved by the student's dissertation committee. The student must then defend the dissertation. The process for submission of the dissertation to the Graduate School can be found on the Graduate School Web site under "Current Students-Thesis and Dissertations." This process should be started approximately one month before the defense, and the student must allow adequate time after the defense for final copy preparation.

The dissertation must conform to the general regulations described in *Regulations for Format and Presentation of Theses and Dissertations*, also available from the Graduate School Web site, Additional regulations and information on the organization and preparation of the dissertation are provided in *Directions for Preparation of Dissertations and Research Reports as Required by the Graduate Program in Ocean Sciences/ University of Southern California*, available in the GPOS office.

Interdisciplinary Programs
The Graduate Program in Ocean Sciences is designed to be interdisciplinary, reflecting the nature of the field that combines principles of physical, chemical, geological and biological oceanography to solve relevant problems in the ocean environment.

Courses of Instruction

OCEAN SCIENCES (OS)

The terms indicated are *expected* but are not *guaranteed.* For the courses offered during any given term, consult the *Schedule of Classes.*

OS 512 Introduction to Chemical and Physical Oceanography (3, 2 years, Fa) Principles of physical, chemical, and geological oceanography including discussions of air-sea interaction, biogeochemical cycling and the role of the ocean in modulating climate and atmospheric composition; discussion section will cover formulation of basic calculations that illustrate these principles. *Prerequisite:* CHEM 105*bL,* MATH 126.

OS 582 Advanced Biological Oceanography (4, Fa) (Enroll in BISC 582)

OS 590 Directed Research (1-12, FaSpSm) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

OS 594abz Master's Thesis (2-2-0, FaSpSm) Credit on acceptance of thesis. Graded IP/CR/NC.

OS 599 Special Topics (2-4, max 8, Irregular) Course contents each semester will be selected to reflect current trends and new developments in the field of Ocean Sciences.

OS 790 Research (1-12, FaSpSm) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

OS 794abcdz Doctoral Dissertation (2-2-2-2-0, FaSpSm) Credit on acceptance of dissertation. Graded IP/CR/NC.

Peace and Conflict Studies

Contact: School of International Relations
Von KleinSmid Center 301
(213) 740-6278
FAX: (213) 742-0281

The peace and conflict studies minor is an interdisciplinary approach to the related questions of what causes war and what produces peace. Utilizing theoretical and empirical methods, students will examine both conflict resolution and building sustainable peace. Students will explore these topics throughout their curriculum, and then apply them in the world through their internship opportunity.

Requirements for the Minor in Peace and Conflict Studies

In addition to the university requirements for minor programs (see page 58), students must complete two required courses, three electives and a one-semester internship.

Required Courses

Students must complete IR 310 Introduction to Peace and Conflict Studies and IR 318 Conflict Resolution and Peace Research.

Internship

Students must complete a one-semester internship with a peace-related organization. The internship gives students the opportunity to apply their classroom knowledge through supervised fieldwork. The organization for which work is done must be approved by the program in advance.

INTERNSHIP COURSES (4 UNITS)

IR 491*	Field Study	1-8
MDA 250	Internship for Liberal Arts: Work and Career-Theory and Practice	1-2
POSC 395	Directed Governmental and Political Leadership Internship	2-8

Required Electives

Students must also complete a total of three electives — one course from Conflict and Its Resolution, Peace and Justice and an additional elective from any of the lists below.

ELECTIVES IN CONFLICT AND ITS RESOLUTION (CHOOSE AT LEAST ONE)

ANTH 371	Cross-Cultural Research on Urban Gangs	4
ANTH 499	Special Topics	4
GEOG 120	Geopolitics	4
HIST 235	War and the American Experience	4
HIST 344	The Vietnam War, 1945-1975	4
IR 315*	Ethnicity and Nationalism in World Politics	4
IR 381*	Introduction to International Security	4
IR 386*	International Terrorism and Liberal Democracy	4
IR 402*	Theories of War	4
IR 405*	International Negotiation	4
IR 427*	Seminar on Economics and Security	4
POSC 345	International Law	4
POSC 366	Terrorism and Genocide	4

ELECTIVES IN PEACE AND JUSTICE (CHOOSE ONE)

ANTH 345	Politics, Social Organization, and Law	4
IR 306*	International Organizations	4
IR 325*	Rich and Poor States in the World Political Economy	4
PHIL 337	History of Modern Political Philosophy	4
PHIL 437	Social and Political Philosophy	4
POSC 421	Ethnic Politics	4
POSC 476	Contemporary Political Thought	4
REL 341	Ethics in a Technological Society	4
REL 462	Religion and Violence	4
SOCI 342	Race Relations	4
SOCI 360	Social Inequality: Class, Status, and Power	4
SOCI 425	Crowds, Publics, and Social Movements	4

ADDITIONAL ELECTIVE (CHOOSE AT LEAST ONE FROM THIS LIST OR LISTS ABOVE)

ANTH 335	Comparative Muslim Societies	4
ANTH 380	Sex and Gender in Anthropological Perspective	4
COMM 308	Communication and Conflict	4
HIST 352	The American Civil War	4
HIST 361	20th Century U.S. History	4
HIST 365	The Second World War	4
HIST 414	Contemporary Europe	4
HIST 422	European Intellectual and Cultural History: The 20th Century, 1920 to the Present	4
HIST 441	Modern World History	4
HIST 473	Colonial Latin America Seminar	4
JOUR 483	Negotiating and Reporting Global Change	4
POSC 380	Political Theories and Social Reform	4
POSC 381	Sex, Power and Politics	4
SWMS 301	Introduction to Feminist Theory and the Women's and Men's Movement	4
SWMS 364	Racial and Ethnic Women in America	4

*International Relations majors must take four non-IR courses (16 units) for this minor.

Philosophy

Mudd Hall of Philosophy
(213) 740-4084
FAX: (213) 740-5174
Email: philos@usc.edu
www.usc.edu/dept/LAS/philosophy

Director: Scott Soames, Ph.D.

Faculty
Linda MacDonald Hilf Chair in Philosophy: James Higginbotham, Ph.D.*

Professors: James T. Higginbotham, Ph.D.; Gregory Keating, Ph.D. *(Law);* Frank Lewis, Ph.D.; Sharon Lloyd, Ph.D.; Andrei Marmor, Ph.D. *(Law);* Edwin McCann, Ph.D.* (*Vice Dean)*; Kevin W. Robb, Ph.D.*; Scott Soames, Ph.D.; James Van Cleve, Ph.D.; Dallas Willard, Ph.D.*; George Wilson, Ph.D.

Associate Professors: Zlatan Damnjanovic, Ph.D.; John H. Dreher, Ph.D.; Janet Levin, Ph.D.; Kadri Vihvelin, Ph.D., L.L.B.; Gideon Yaffe, Ph.D.

Assistant Professors: Stephen Finlay, Ph.D.; David Manley, Ph.D.; Jacob Ross, Ph.D.; Mark Schroeder, Ph.D.

Emeritus University Professor and Emeritus Dean of the College of Letters, Arts and Sciences: S. Marshall Cohen, M.A.*

Emeritus Professor: John Hospers, Ph.D., D.Litt.

*Recipient of university-wide or college teaching award.

Undergraduate Programs
The School of Philosophy offers courses in most areas of philosophy, including philosophy of mind, philosophy of language, epistemology, metaphysics, logic, philosophy of science, political philosophy, ethics, aesthetics, the history of philosophy, phenomenology and existentialism. The major in philosophy is designed to acquaint students with the fundamental problems of Western thought and introduce them to the concepts and techniques necessary for independent philosophical thinking; it is equally intended to provide a broadening perspective for the various areas of specialization in the natural and social sciences and in literature and the arts. The school also offers a minor in philosophy and in theories of art.

Graduate Programs
The School of Philosophy offers a Master of Arts in Philosophy, a joint degree with the USC Gould School of Law and a Doctor of Philosophy in Philosophy.

Undergraduate Degrees

Major Requirements for the Bachelor of Arts in Philosophy
The School of Philosophy offers two major options: the major in philosophy and the major in philosophy with an emphasis on ethics, law and value theory.

The major in philosophy requires eight courses in philosophy; six of these must be at the upper-division level. One of the eight courses must be selected from the following list: PHIL 300, PHIL 315, PHIL 320, PHIL 350 or PHIL 360. Students are strongly encouraged to take one of these courses before taking any 400-level courses. Three of the eight courses must satisfy the distribution requirement: at least one course from each of the three categories listed.

History of Philosophy: PHIL 315, PHIL 320, PHIL 345, PHIL 410, PHIL 411, PHIL 415, PHIL 421, PHIL 422, PHIL 423, PHIL 424, PHIL 427, PHIL 434.

Ethics, Law and Value Theory: PHIL 330, PHIL 335, PHIL 337, PHIL 340, PHIL 345, PHIL 430, PHIL 437, PHIL 440, PHIL 442.

Systematic Philosophy: PHIL 350, PHIL 360, PHIL 385, PHIL 427, PHIL 428, PHIL 460, PHIL 462, PHIL 463, PHIL 465, PHIL 470, PHIL 480, PHIL 485, PHIL 486.

The major with an emphasis on ethics, law and value theory requires the student to complete all of the requirements for the major in philosophy, with the further requirement that three of the eight courses completed are from the distribution category of ethics, law and value theory. The major with emphasis on ethics, law and value theory requires eight courses in philosophy, of which six must be upper-division courses; one course from the list of 300-level courses above; one course from the list of history of philosophy courses; one course from the list of systematic philosophy courses; and three courses from the list of ethics, law and value theory courses.

Philosophy Major with Honors
The philosophy major with honors requires the student to complete one of the major options with a GPA in the major of at least 3.5 and also complete a ninth course, PHIL 494 Senior Thesis, with a grade of B or better. Intent to complete the philosophy major with honors normally should be registered with the philosophy advisor no later than the second semester of the junior year. Students who intend to graduate with honors are encouraged to complete PHIL 350.

Undergraduates who are considering graduate school in philosophy should, in addition to consulting with the undergraduate advisor, consult with the graduate advisor on a regular basis until graduation. The School of Philosophy strongly urges that future philosophy graduate students major with honors, enroll in PHIL 350 for credit, and consider (in consultation with the philosophy advisors) taking at least one graduate course for undergraduate credit.

Double Major
Double majors are encouraged but a student must work in close consultation with the undergraduate advisor.

Bachelor of Arts with a Combined Major in Linguistics and Philosophy
See Linguistics, page 384.

Minor in Philosophy
The minor in philosophy requires the completion of five philosophy courses, at least four of which are upper-division courses. All minors must complete one of PHIL 300, PHIL 315, PHIL 320, PHIL 340, PHIL 350 or PHIL 360. and must complete one course from each of the subject area lists.

Subject Area Lists
History of Philosophy: PHIL 101, PHIL 115, PHIL 220, PHIL 315, PHIL 320, PHIL 410, PHIL 411, PHIL 415, PHIL 421, PHIL 422, PHIL 423, PHIL 424, PHIL 425, PHIL 426, PHIL 427, PHIL 473.

Ethics, Law and Value Theory: PHIL 140, PHIL 141, PHIL 155, PHIL 330, PHIL 335, PHIL 337, PHIL 338, PHIL 340, PHIL 345, PHIL 430, PHIL 434, PHIL 437, PHIL 440, PHIL 442, PHIL 445, PHIL 446.

Systematic Topics: PHIL 262, PHIL 360, PHIL 361, PHIL 385, PHIL 428, PHIL 450, PHIL 460, PHIL 462, PHIL 463, PHIL 465, PHIL 470, PHIL 480, PHIL 485, PHIL 486.

Minor in Theories of Art
Theorizing about the arts takes place in the discipline of philosophy (aesthetics) as well as in all the individual disciplines concerned with the individual arts. Some of the issues involved (is perspective a matter of convention?; how does acting differ in cinema and in theatre?) are specific to a particular discipline or disciplines, but their discussion typically involves very general issues (in the cases mentioned, issues about the nature of convention or of artistic media) and many of the issues manifest themselves in all these disciplines (the relation of intention to interpretation; the epistemological and moral status of the arts; the nature of evaluative judgments). The understanding of these issues can be greatly enhanced by studying them as they arise in different arts and in different theoretical traditions. The minor should be of interest to students with an interest in philosophy, or students in any of the arts who are interested in their theoretical dimensions.

There are no entrance requirements for the minor, which requires six courses (23 or 24 units, depending on course selection).

All students must take PHIL 242 Theories of Art (4 units) and select five courses from the following:

AHIS 250	Modernity and Difference: Critical Approaches to Modern Art	4
ARCH 314	Theory and Criticism: Recent Trends and Developments	3
COLT 391	Literary Criticism from Plato to Postmodernism	4
COLT 454	Aesthetic Philosophy and Theory	4
ENGL 479	History of Literary Criticism	4
ENGL 480	Modern Literary Criticism: Theory and Practice	4
PHIL 445	Philosophy of the Arts	4
PHIL 446	Aesthetics and the Film	4
THTR 404	Acting Theory	4

Minor in Critical Approaches to Leadership
See Interdisciplinary Studies, page 362.

Graduate Degrees

The objective of the graduate program in philosophy is to equip suitably prepared and talented students to function effectively as teachers, thinkers and writers on philosophical topics in the Western tradition. The program provides for a wide range of studies within philosophy, but emphasizes the history of philosophy, both classical and modern, along with the traditional core disciplines: ethics, epistemology, metaphysics and logic.

Because philosophy is as much a special manner of intellectual activity as it is a special subject matter, the graduate student is expected not only to master major works in the historical and contemporary literature of philosophical thought, but also to develop the ability to engage in the ongoing process of philosophical research and dialogue.

Admission Requirements
An applicant for admission normally has an undergraduate major in philosophy, but programs may be arranged for promising students who do not. At least three letters of recommendation from the student's undergraduate teachers should be sent to the chair, graduate admissions, of the school. All applicants are required to take the verbal and quantitative General Tests of the Graduate Record Examinations.

Degree Requirements
These degrees are awarded under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Master of Arts in Philosophy
The department does not accept applicants for a Master of Arts degree in philosophy. The M.A. degree is intended only as a transitional degree in the process of completing requirements for the Ph.D. in philosophy.

A student may obtain an M.A. in philosophy by fulfilling the following requirements: a minimum of 36 units in the USC philosophy school, at least 24 of which must be at the 500 level. Requirements include: PHIL 500 and a 500-level course in each of the following three areas: metaphysics and epistemology, ethics and other value theory, and history of philosophy. Of the remaining five required (4-unit) courses, only four units of PHIL 590 are applicable to the degree. A publishable research paper is also required.

Juris Doctor/Master of Arts, Philosophy
Students must complete 24 units in the USC School of Philosophy and 69 units in the USC Gould School of Law.

First Year: Required law school curriculum.

Second and Third Years: The School of Philosophy prefers that students take at least one philosophy course each semester. During the four semesters, students must take at least 16 units at the 500-level, including PHIL 450 Intermediate Symbolic Logic or PHIL 510 Philosophical Logic and PHIL 500 Introduction to Contemporary Philosophical Literature; one 400- or 500-level course in ethics or social/political philosophy or aesthetics or philosophy of law; one 400- or 500-level course in metaphysics or epistemology or philosophy of language or philosophy of science or philosophy of mind; one 400- or 500-level course in the history of ancient or early modern philosophy; passage of the second year review that shall include a research paper based on a completed seminar paper and completion of a publishable research paper. Students must also complete 36 additional law units.

Doctor of Philosophy in Philosophy
Application deadline: January 1

Course Requirements
The minimum number of course credits required for the Ph.D is 60 units. No more than 8 of these units may be from 590 courses and no more than 8 of these units may be

from 400-level courses in the School of Philosophy. PHIL 450 does not count toward this maximum of 8 units of 400-level courses in the School of Philosophy. No more than eight of these units may be earned in 794 Doctoral Dissertation. Each student must pass PHIL 450 or PHIL 510 with a grade of B or better and must pass PHIL 500 with a grade of B+ or better. Both PHIL 450 or PHIL 510 and PHIL 500 must be satisfactorily completed by the end of the second year.

The student may take up to two courses in a field of study related to philosophy. The Ph.D. dissertation may be written in any area of philosophy for which adequate supervision is available from within the university. Ph.D. students are also required to show evidence of practical or editorial training, or their equivalent.

Foreign Language/Research Tool Requirement
A foreign language examination, specified by the school, in French, German, Latin or classical Greek is required. The faculty may approve a replacement of the language requirement by a research tool requirement, consisting of an approved course or examination in a subject essential to the student's research program. The course or examination must be passed before the qualifying examination is attempted.

There are three levels of evaluation in the Ph.D. program prior to the dissertation:

Distribution Requirement
There is a distribution requirement of six courses at the 500 level in the School of Philosophy, one each from the following six areas: (1) epistemology (broadly construed, including philosophy of science), (2) metaphysics (broadly construed, including philosophy of mind and language), (3) ethics, (4) other value theory, (5) history of ancient philosophy, (6) history of modern philosophy. PHIL 500 and PHIL 590 courses cannot count toward this requirement. The courses in the systematic area will be taught in the tradition of Anglo-American analytic philosophy. For courses straddling two areas (for example, history of ancient philosophy and metaphysics; history of modern philosophy and ethics), instructors will indicate on the syllabus which requirement the course will satisfy. Courses dealing with subject matter within more than one of the six areas listed may be used to satisfy any of the areas encompassed by the course although no single course may be used to satisfy two requirements at once. All distribution requirements must be completed by the end of the fifth semester.

Screening Procedure
Students in the Ph.D. program must pass a screening procedure before undertaking their 25th unit (seventh course) of graduate credit. This will be based on a review of the student's work to date, and will take into account not only information acquired but also those intellectual qualities and capacities that are essential for good work in philosophy: the capacity to think and write on philosophical issues with clarity, consistency and thoroughness; the ability to understand in detail what is involved in the meaning and justification of philosophical claims or positions; the ability to recognize and to draw out fine conceptual distinctions and to perceive their logical relationships; and strong intellectual curiosity and independence of thought.

Student Reviews
Graduate student progress is reviewed on a regular basis each term. In addition, apart from the screening procedure, there are more formal reviews conducted at the end of the 4th and 6th semesters of study, as described below.

In the fourth semester of study, normally the spring of the second year, each student shall submit two papers, approximately 8000 words each, in different fields of philosophy (ordinarily two substantially revised papers previously submitted in seminars). The choice of papers should be made in consultation with the Graduate Advisor. The second year evaluation will be made on the basis of faculty review of the submitted papers and consideration of the student's total record.

For the review following the sixth semester of study, students are to select one from a list of pre-designated areas in philosophy and to master the material on a pre-assigned reading list of important works in that area. At the beginning of the 6th semester, each student will take a written examination, designed by the faculty of the School of Philosophy, on the materials covered in the relevant reading list followed by an oral examination exploring their knowledge of the field. This examination must be passed by the end of the 6th semester. The examining committee for each student will consist of faculty conversant with the field and appointed by the School.

Qualifying Examination
This examination consists of a written prospectus of the proposed dissertation and an in-depth oral examination on the form and subject matter of the proposed dissertation. All faculty members may inspect the prospectus and be present at the oral, but evaluation of the qualifying examination is the responsibility of the student's guidance committee. The examination is not passed if two or more members of the guidance committee find it unsatisfactory.

The qualifying examination is not offered in the summer. Those who intend to take this examination must meet all the conditions specified in the section on general requirements for the Ph.D. Students are expected to pass the qualifying exam by the end of the 7th semester. Students who have not passed the qualifying exam by the end of the 7th semester will be subject to faculty review, and may not be allowed to continue in the program.

Doctoral Dissertation
When the student passes the qualifying examination, a dissertation committee (see Graduate Advisement), replacing the guidance committee, is appointed by the director of the school in consultation with the student and the philosophy faculty. Normally, the guidance committee simply becomes the dissertation committee. This committee and the candidate will then agree upon how the dissertation is to be developed and written. The dissertation must be an original contribution to some well-defined area in philosophy, and must give evidence of ability to do respectable, large-scale research, thinking, and writing in the field. The school requires the defense oral when the research and writing of the dissertation is substantially complete. Attendance at this oral examination is open to all members of the university faculty, but the examination is conducted and evaluated by the candidate's dissertation committee. The faculty normally works with the dissertations only in the fall and spring semesters, and the student should plan accordingly.

Graduate Advisement
In addition to the departmental graduate advisor, who has the formal role in graduate advising, each student will be matched with a personal advisor, who will share responsibility with the graduate advisor for monitoring a student's progress semester by semester. The graduate advisor is available to counsel any graduate student on all aspects of the graduate program. A student's personal advisor will consult informally with the student semester by semester on how to interpret his or her grades and especially the written reports provided by the instructor for each course in which the student is enrolled, discuss informally the student's selection of courses each semester, and generally keep track of the student's progress in the program. At the appropriate time, the student will consult his or her advisor concerning the appointment of a faculty committee for guidance and supervision. An official guidance committee will be appointed at the time the student passes the screening examination; for the rules governing its establishment and makeup, see General Requirements for the Doctor of Philosophy degree in the Graduate School section. The guidance committee will meet with the student soon after its appointment, and at least once each academic year thereafter.

Courses of Instruction

PHILOSOPHY (PHIL)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

PHIL 101g Philosophical Foundations of Modern Western Culture (4) The influence on modern Western culture of philosophical thought about reality, knowledge and morality as developed by such philosophers as Descartes, Leibniz and Kant.

PHIL 115g Ancient Greek Culture and Society (4) Focus on the literary achievement from the beginning of Greek literature to the fourth century with a special emphasis on the philosophers.

PHIL 137gm Social Ethics for Earthlings and Others (4, FaSp) A systematic study of contemporary issues in social and political philosophy engaging multimedia works of science fiction to illuminate classic Western moral and political theories.

PHIL 140g Contemporary Moral and Social Issues (4) Application of philosophical theories in ethics to problems such as racial and sexual discrimination, I.Q., and social justice, rights of animals, law and morality, and privacy. *Concurrent enrollment:* WRIT 140.

PHIL 141g The Professions and the Public Interest in American Life (4) The study of the nature and role of professionals in life and society, forces that shape and direct them, foundations and applications of professional ethics. *Concurrent enrollment:* WRIT 140.

PHIL 155g Modern Philosophy and the Meaning of Life (4) Modern philosophical treatments of the problem of the meaning or purpose of human life; special attention to Existentialism.

PHIL 220g Science, Religion and the Making of the Modern Mind (4) Philosophical and religious implications of the scientific revolution of the 17th century and the Darwinian revolution in the 19th century.

PHIL 225g Love and its Representations in Western Literature, Philosophy, and Film (4, FaSp) Key works that have shaped the European and American cultural inheritance, with a special focus on the nature of love (and marriage or domesticity). *Concurrent enrollment:* MDA 140.

PHIL 242 Theories of Art (4) An introduction to general theories of art and to issues concerning particular arts such as literature and drama, photography and film, painting, architecture and music.

PHIL 250ab Elementary Formal Logic (2-2, FaSp) Critical reasoning skills and their many everyday applications; theory of logically correct reasoning and its associated formal techniques.

PHIL 262g Mind and Self: Modern Conceptions (4) Philosophical problems about the nature of mind associated with the rise of modern science; topics include the mind/body relation, personal identity, rationality and freedom.

PHIL 285Lg Knowledge, Explanation, and the Cosmos (4) Examination of philosophical problems related to modern cosmology, including knowledge of the unobservable, the nature of space and time, and the origin of the universe.

PHIL 300 Introduction to the Philosophical Classics (4) An examination of philosophical works which have had a profound impact on the nature of Western thought.

PHIL 315 History of Western Philosophy: Ancient Period (4) Major figures in the history of Western philosophical thought from the pre-Socratics to the Hellenistic period; emphasis on Plato and Aristotle.

PHIL 317 History of Western Philosophy: Medieval Period (4) Central themes in Jewish, Christian and Islamic philosophy from late antiquity through the scholastic period.

PHIL 320 History of Western Philosophy: Modern Period (4) The development of philosophy from the 16th to the 19th centuries; emphasis on Continental Rationalism, British Empiricism, and the philosophy of Kant.

PHIL 330 Theories of Law (4) Examination of some of the major classical and contemporary theories of the nature and functions of law and of its relation to morality.

PHIL 335 Theoretical Models of Leadership (4, FaSp) Political philosophers and social theorists on leadership: political obligation; the art of government; leadership in civil society and counter-cultural dissent; models of cosmopolitan leadership.

PHIL 337 History of Modern Political Philosophy (4) Analysis of some of the main political philosophies of the modern era; emphasis on the ethical and metaphysical foundations of political philosophy.

PHIL 338 Political Economy and Social Issues (4, Sp) (Enroll in ECON 338)

PHIL 340 Ethics (4) Leading approaches to moral thinking, such as theological ethics, egoism, utilitarianism, and the moral philosophies of Kant, Rawls, and others. (Duplicates credit in former PHIL 240.)

PHIL 345 Greek Ethics (4) Examination of the progress of the ethical thought and legal and political institutions of ancient Greece with an emphasis on the Nichomachean Ethics of Aristotle.

PHIL 350 Symbolic Logic (4, Fa) Introduction to formal logic through two formal systems: propositional calculus, quantification theory; consistency, completeness, other advanced topics. Especially for philosophy, mathematics, science, and engineering majors.

PHIL 351 Reasoning and Logic (4) Study of reasoning as a strategy for arriving at knowledge in dependence upon logical theory. Logical theories are developed alongside historically influential strategies of reasoning. Not open to freshmen.

PHIL 355 Existentialism (4) A critical survey of major 19th and 20th century existentialist writers, including Kierkegaard, Dostoevsky, Tolstoy, Kafka, Nietzsche, Camus, and Sartre.

PHIL 360 Epistemology and Metaphysics (4) Examination of problems in metaphysics and/or epistemology. Conducted at the intermediate level.

PHIL 361 Philosophy of Religion (4) The existence of God; mysticism, miracles and the possibility of disembodied existence; the problem of evil; religion and morality; the meaning of religious language.

PHIL 385 Science and Rationality (4) Examination of the rationality of the scientific enterprise, and of the relation between science and human values.

PHIL 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

PHIL 410 Early Greek Thought (4) A study of the Greek thinkers from Homer to the age of Socrates; emphasis on the pre-Socratic philosophers.

PHIL 411 Plato (4) Detailed study of the evolution of Plato's thought as revealed in selected dialogues.

PHIL 415 Western Philosophy from Aristotle to St. Thomas (4) Intensive examination of select figures and problems in the history of philosophy in the late Greek and early Medieval period; emphasis on Aristotle and St. Thomas.

PHIL 421 Continental Rationalism (4) Development of philosophy on the continent from the 17th to the 19th centuries; emphasis on the philosophical works of Descartes, Leibniz, and Spinoza.

PHIL 422 British Empiricism (4) Development of philosophy in Great Britain from the 17th to the 19th centuries; emphasis on Locke, Berkeley, and Hume.

PHIL 423 The Critical Philosophy of Kant (4) Intensive study of the philosophical works of Kant.

PHIL 424 19th Century Philosophy (4) Leading figures and movements in 19th century philosophy; works of such philosophers as Hegel, Schopenhauer, Mill, Nietzsche, and Bradley.

PHIL 425 American Philosophy (4) Leading figures and movements in American philosophy; works of such philosophers as Jonathan Edwards, Charles Peirce, William James, John Dewey, and C.I. Lewis.

PHIL 426 20th Century European Philosophy (4) Main philosophers and movements from 1900, including the major developments within phenomenology and existentialism, the emergence of structuralism and hermeneutics.

PHIL 427 20th Century Anglo-American Philosophy (4) Leading figures and movements in recent Anglo-American philosophy; Russell (logical atomism), Dewey and Lewis (pragmatism), Ayer and Carnap (positivism), Wittgenstein and Austin (linguistic analysis).

PHIL 428 Anglo-American Philosophy since 1950 (4, FaSp) Covers the period starting with Ludwig Wittgenstein's "Philosophical Investigations" and continuing through Saul Kripke's "Naming and Necessity," and beyond.

PHIL 430 Philosophy of Law (4) The nature of law, legal realism, legal positivism; concepts used in law, such as punishment, responsibility, insanity, negligence, strict liability; law and morality.

PHIL 437 Social and Political Philosophy (4) The nature of man and society, the nature and justification of state and government, political rights and political obligation, justice and equality.

PHIL 440 Contemporary Ethical Theory (4) Ethical theories in the 20th century; contemporary theories of value and obligation; metaethical theories; intuitionism, naturalism, and non-cognitivism; concepts of justice, human rights, and freedom.

PHIL 442 History of Ethics to 1900 (4) An historical and critical study of the great moral philosophers, including Plato, Aristotle, Aquinas, Kant, and the British moralists.

PHIL 445 Philosophy of the Arts (4) Principal theories of the nature of, and response to, art; examination of form and content in various arts; consideration of the role of criticism.

PHIL 446 Aesthetics and the Film (4) Problems in the philosophy of art raised by film, such as the notion of "cinematic"; the nature of interpretation of films; criteria for evaluating films.

PHIL 450 Intermediate Symbolic Logic (4, Sp) Review of propositional and quantificational logic; elementary set theory; alternative proof systems. *Prerequisite:* PHIL 350.

PHIL 455 Phenomenology and Existentialism (4, Irregular) Close study of major writings of Husserl, Heidegger, and Sartre.

PHIL 460 Metaphysics (4) Systematic introduction to basic concepts, including identity, difference, existence, individuals, substance, quality, and relation; emphasis on idealism, materialism, and the ontology of intentionality.

PHIL 462 Philosophy of Mind (4) Philosophical analysis of concepts of mind and mental phenomena, such as emotion, intention, and sensation; consideration of the mind/body problem and contemporary responses to it.

PHIL 463 Theories of Action (4) Systematic investigation of classical and contemporary theories of action and study of "action-concepts" central to recent developments in meta-ethics and metaphysics.

PHIL 465 Philosophy of Language (4) The nature of communication, meaning, reference, truth, necessity, speech acts, convention, and language.

PHIL 470 Theory of Knowledge (4) Discussion of the nature and scope of human knowledge; consideration of such concepts as meaning, evidence, perception, belief, and certainty.

PHIL 473 Wittgenstein (4) A detailed study of the philosophical works of Ludwig Wittgenstein.

PHIL 480 Philosophy of Mathematics (4) The nature of mathematical truth and the nature of mathematical entities.

PHIL 485 Development of Physical Science (4) Concepts central in the advance of physical science such as the concepts of space, time, mass, force; philosophical problems concerning quantum mechanics.

PHIL 486 Methodologies of the Sciences (4) Comparison of the methodologies of the natural, social, and/or behavioral sciences; consideration of such topics as the concept of scientific law, prediction, explanation, confirmation.

PHIL 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit.

PHIL 494 Senior Thesis (4) Independent studies for philosophy majors, and guidance in the preparation of the senior thesis for students who wish to graduate with honors in philosophy. Not open to graduate students.

PHIL 499 Special Topics (2-4, max 8) Selected topics in various specialty areas within philosophy.

PHIL 500 Introduction to Contemporary Philosophical Literature (4, Fa) Analysis of selected philosophical problems and theses of current interest; explication of major contemporary papers and/or books is emphasized.

PHIL 501 Seminar in Recent Philosophy (4, max 16, Sp) Contemporary philosophical issues and literature.

PHIL 505 Pro-Seminar in Central Topics in Contemporary Philosophy (4, Irregular) Key developments in central areas of philosophy are used to provide training in philosophical analysis, criticism, and the writing of precise philosophical prose.

PHIL 510 Philosophical Logic (4, Sp) Applications of logical theory to contemporary philosophical research. Elements of model theory, recursion theory; Goedel's Incompleteness results; modal logic and its interpretations. *Recommended preparation:* PHIL 350.

PHIL 515 Studies in Ancient and Medieval Philosophy (4, max 16) Problems in research in selected portions of ancient and medieval philosophy.

PHIL 520 Studies in Modern Philosophy (4, max 16) Problems in research in selected portions of modern philosophy.

PHIL 525 Seminar in Phenomenology (4) The origin, principles, and development of the phenomenological movement from Brentano to Merleau-Ponty.

PHIL 530 Seminar in Philosophy of Law (4) Theories of the nature of law; emphasis on recent writing; legal concepts such as rights, powers, liability, legal responsibility, law, and morality.

PHIL 537 Seminar in Social and Political Philosophy (4, max 16) Advanced literature on selected topics in social and political philosophy, including the nature of law, man, and society; ideals such as justice and freedom.

PHIL 540 Seminar in Ethics (4, max 16) Advanced topics and literature in ethical theory.

PHIL 545 Seminar in Aesthetics (4) Advanced topics in the philosophy of the arts. Contemporary views on such problems as the nature of art and the role of criticism.

PHIL 550 Advanced Topics in Formal Logic (4) Consistency and completeness of the predicate calculus; truth and validity; rudiments of model logic. *Prerequisite:* PHIL 450.

PHIL 551 Seminar in the Philosophy of Logic (4) Advanced topics in logic and/or philosophy of logic.

PHIL 560 Seminar in Metaphysics (4, max 16, Fa) Advanced topics in metaphysics.

PHIL 565 Philosophy of Language (4, Irregular) Philosophical issues in the empirical study of language concerning the relationship between linguistic meaning and the use of sentences to assert and convey information.

PHIL 570 Seminar in Epistemology (4, max 16) Advanced topics in epistemology.

PHIL 585 Seminar in Philosophy of Science (4, max 16) Advanced topics in the philosophy of science.

PHIL 589 Writing for Publication in Philosophy (4, max 8, Sp) Intensive writing seminar in which students read cutting-edge philosophy and take supervised steps towards crafting critical essays for publication. *Prerequisite:* PHIL 500, PHIL 505.

PHIL 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PHIL 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded IP/CR/NC.

PHIL 599 Special Topics (2-4, max 8) Major trends of current thought; specific topics to be announced.

PHIL 636 Seminar in Semantics (3, max 12) (Enroll in LING 636)

PHIL 790 Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PHIL 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

Physical Education

Physical Education Building 108
(213) 740-2488
Fax: (213) 821-1058
Email: phed@usc.edu
www.usc.edu/dept/LAS/phed

Director: Steve VanKanegan, M.S.

Administrative Coordinator: Amber Harris, M.P.W.

Faculty

Lecturers: Timothy L. Burton, M.Ed.; John Jessee, M.S.; Danielle Roman, M.S.; Jennifer Rooney, M.S.; Steve VanKanegan, M.S.

The physical education program provides a variety of offerings in fitness and activities classes designed to promote health and general fitness based upon individual goals and needs. Fitness classes focus primarily on development of muscle strength, muscle endurance, cardiorespiratory endurance, flexibility, general wellness principles and nutritional guidelines. Activities classes stress fundamental techniques, tactics, rules, etiquette and the importance of leisure time activities to physical, mental and social well-being.

General Requirements

No more than four units of physical education activity courses may be applied to a student's overall unit requirement, toward his or her USC degree.

Registration in courses PHED 102ab-156 is contingent upon assessment of students' knowledge and competence in performance during the first two class meetings. Students who wear glasses while participating in vigorous activities must secure departmental approval of provisions made for eye protection in courses PHED 140-143. Course PHED 165 is reserved for students who are reporting for regular freshman or varsity athletic squads.

To obtain a prerequisite waiver to take a *b* class before having taken the *a* section, the instructor's approval and signature are needed. Students should be aware that in the future they cannot take the prerequisite course in the activity for credit after having it waived.

Courses of Instruction

PHYSICAL EDUCATION (PHED)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

PHED 102ab Weight Training (1-1, FaSp) *a:* Improvement of body shape, muscle endurance, and muscle strength; understanding of weight training and nutrition principles that can be utilized for future weight training development. *b:* Training techniques and application of advanced weight training principles through weekly workouts; personal trainer certification exam preparation.

PHED 104ab Self-Defense (1-1, FaSp) *a:* Basic instruction of self-defense for beginners; strategies for standing and ground fighting situations with and without weapons. *b:* Intermediate instruction involving more advanced fighting strategies and techniques.

PHED 106ab Physical Conditioning (1-1, FaSp) *a:* Improvement in cardiorespiratory endurance, body composition, muscle endurance and flexibility; running, circuit training, resistance exercises; fitness principles and nutrition to develop individualized program. *b:* Advanced training methods focusing on continuing gains in fitness level.

PHED 108 High Stress Physical Conditioning (1) Rigorous physical conditioning with emphasis on distance running and development of cardiovascular and upper body strength. A challenging regimen to enhance stamina and endurance. *Prerequisite:* PHED 106*b* or permission of instructor.

PHED 110ab Swimming (1-1, FaSp) *a:* Instruction and practice in basic strokes for beginners and intermediate swimmers; elementary springboard diving; water safety techniques; endurance training as a fitness program. *b:* Advanced instruction and practice of strokes; advanced endurance training.

PHED 114 Lifesaving (1) American Red Cross Senior Lifesaving. *Prerequisite:* PHED 110*ab* or ability to pass Skills Test II.

PHED 120 Yoga (1, FaSp) Introduction to meditation, breathing techniques and postures as a means towards relaxation; increase muscle strength and flexibility; understanding of basic anatomy and nutritional guidelines.

PHED 129ab Aerobics (1-1, FaSp) *a:* Aerobic exercise focusing on cardiorespiratory endurance encompassing a variety of training methods such as high/low impact aerobics, body sculpting, circuit training and nutritional guidelines. *b:* Group exercise teaching techniques and application of fitness principles through weekly workouts; group fitness certification exam preparation.

PHED 131 Step Aerobics (1, FaSp) Development of physical fitness components through step aerobics; total body workout utilizing step movements and body sculpting exercises.

PHED 137 Gymnastics (1, FaSp) Basic techniques of tumbling and apparatus work; rope climbing, stunts, pyramids; history, rules, scoring, and etiquette of gymnastic competition.

PHED 139ab Volleyball (1-1, FaSp) *a:* Introduction to beginning and intermediate volleyball skills, rules, game tactics, and strategies. Emphasis on the development of: passing, setting, hitting, serving, blocking, and digging. *b:* Advanced techniques; focus on offenses and defenses used in game situations.

PHED 140abc Tennis (1-1-1, FaSp) *a:* Fundamental instruction of basic strokes for beginners and intermediate players; rules, scoring, court etiquette, strategies; singles and doubles; practice and match play. *b:* Reinforcement of basic strokes and instruction of advanced strokes; advanced strategies; singles and doubles; practice and match play. *c:* Development of strokes and strategies for advanced tournament players; drills and matches.

PHED 143ab Racquetball (1-1, FaSp) *a:* Instruction of basic stroke technique for beginners and intermediate players; rules, scoring, game tactics; practice of strokes and competition. *b:* Development of advanced skills and strategies; singles and doubles practice and competition.

PHED 154ab Soccer (1-1, FaSp) *a:* Development of basic skills for beginners, intermediate and advanced players; rules, positioning elements of play, small group and team tactics; full field scrimmages. *b:* Advanced development of skills, positioning, tactics and conditioning.

PHED 156ab Basketball (1-1, FaSp) *a:* Basic skill development in dribbling, passing, shooting, rebounding and defense; rules, history, and etiquette; drills and full court games. *b:* Development of advanced skills; team strategy; offenses and zone defenses; drills and full court games.

PHED 160 Stress Management for Healthy Living (2, FaSp) Instruction on the effects of stress as it relates to work, sport and academics; coping strategies are discussed and applied through physical conditioning interventions.

PHED 161 First Aid (1, FaSp) First Aid safety education and infant, child, and adult CPR; demonstrated proficiency and successful completion of exam prepares students for Red Cross certification. (Duplicates credit in former PHED 171.)

PHED 165 Varsity Athletics (1, max 4) Participation in the university's inter-collegiate programs as sanctioned and governed by the PAC-10 Conference and/or the NCAA. Graded CR/NC.

Physics and Astronomy

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Chair: Werner Däppen, Ph.D.

Faculty

University Professor: Lloyd Armstrong, Jr.

Professors: Lloyd Armstrong, Jr., Ph.D.; Itzhak Bars, Ph.D.; Gerd Bergmann, Ph.D.; N. Eugene Bickers, Ph.D.*; Hans M. Bozler, Ph.D.; Tu-nan Chang, Ph.D.*; P. Daniel Dapkus, Ph.D. *(Electrical Engineering);* Werner Däppen, Ph.D.*; Jack Feinberg, Ph.D.*; Christopher M. Gould, Ph.D.*; Martin A. Gundersen, Ph.D. *(Electrical Engineering);* Stephan Haas, Ph.D.*; Robert W. Hellwarth, Ph.D. *(Electrical Engineering)*; Clifford Johnson, Ph.D.*; Darrell L. Judge, Ph.D.; Rajiv Kalia, Ph.D.; Vitaly Kresin, Ph.D.; Joseph Kunc, Ph.D. *(Aerospace Engineering);* Anthony J. Levi, Ph.D. *(Electrical Engineering);* Anupam Madhukar, Ph.D. *(Materials Science);* Kazumi Maki, D.S.; Aiichiro Nakano, Ph.D. *(Computer Science);* Dennis Nemeschansky, Ph.D.; Robert C. Penner, Ph.D. *(Mathematics);* Krzysztof Pilch, Ph.D.; Edward J. Rhodes, Jr., Ph.D.*; Hubert Saleur, Ph.D.; Robin Shakeshaft, Ph.D.; Priya Vashishta, Ph.D. *(Materials Science);* Andrey Vilesov, Ph.D. *(Chemistry);* William G. Wagner, Ph.D.; Nicholas P. Warner, Ph.D.*

Associate Professors: Todd A. Brun, Ph.D. *(Electrical Engineering);* Daniel Lidar, Ph.D. *(Chemistry);* Jia Grace Lu, Ph.D.; Elena Pierpaoli, Ph.D.; Richard S. Thompson, Ph.D.; Paolo Zanardi, Ph.D.; Chongwu Zhou, Ph.D. *(Electrical Engineering)*

Assistant Professor: Igor Devetak, Ph.D. *(Electrical Engineering)*

Research Professors: Geraldine J. Peters, Ph.D.; Chung-Yung (Robert) Wu, Ph.D.

Emeritus Professors: Robert K. Cole, Ph.D.; Melvin A. Daybell, Ph.D.; Harriet H. Forster, Ph.D.; William G. Spitzer, Ph.D. *(Electrical Engineering and Materials Science)**

*Recipient of university-wide or college teaching award.

Degree Programs

The Department of Physics and Astronomy offers the Bachelor of Science in Physics, Bachelor of Science in Astronomy, Bachelor of Science in Physics/Computer Science, Bachelor of Arts in Physics, Bachelor of Arts in Astronomy, Bachelor of Science in Biophysics, Bachelor of Science in Physical Sciences, a minor in physics or astronomy, Master of Science in Physics, Master of Science in Physics for Business Applications, Master of Arts in Physics and Doctor of Philosophy in Physics.

Undergraduate Degrees

Bachelor of Science in Physics

This program is intended primarily for students who are interested in a career in physics.

REQUIRED LOWER DIVISION COURSES		UNITS
CHEM 115aLbL**	Advanced General Chemistry	4-4
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 161L*	Advanced Principles of Physics I	4
PHYS 162L*	Advanced Principles of Physics II	4
PHYS 163L*	Advanced Principles of Physics III	4
PHYS 190	Freshman Colloquium	1

REQUIRED UPPER DIVISION COURSES		UNITS
MATH 445	Mathematics of Physics and Engineering II	4
PHYS 304	Mechanics	4
PHYS 316	Introduction to Thermodynamics and Statistical Physics	4
PHYS 408ab	Electricity and Magnetism	4-4
PHYS 438ab	Introduction to Quantum Mechanics and its Applications	4-4
PHYS 440	Introduction to Condensed Matter Physics	4
PHYS 492L	Senior Laboratory	4
PHYS 493L	Advanced Experimental Techniques	4
Total units		77

*PHYS 151L, PHYS 152L and PHYS 153L may be substituted for the sequence PHYS 161L, PHYS 162L and PHYS 163L.

**CHEM 105aLbL may be substituted for the sequence CHEM 115aLbL.

Bachelor of Science in Astronomy

This program is intended primarily for students who are interested in a career in astronomy.

REQUIRED LOWER DIVISION COURSES		UNITS
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 161L*	Advanced Principles of Physics I	4
PHYS 162L*	Advanced Principles of Physics II	4
PHYS 163L*	Advanced Principles of Physics III	4

REQUIRED UPPER DIVISION COURSES		UNITS
ASTR 400	The Solar System	4
ASTR 410	Stellar Astronomy	4
ASTR 420	Galaxies and Cosmology	4
ASTR 440	Astrophysics	4
MATH 445	Mathematics of Physics and Engineering II	4
PHYS 304	Mechanics	4
PHYS 316	Introduction to Thermodynamics and Statistical Physics	4
PHYS 408a	Electricity and Magnetism	4
PHYS 438ab	Introduction to Quantum Mechanics and its Applications	4-4
PHYS 493L	Advanced Experimental Techniques	4
Total units		72

*PHYS 151L, PHYS 152L and PHYS 153L may be substituted for the sequence PHYS 161L, PHYS 162L and PHYS 163L.

Bachelor of Science in Physics/Computer Science

This program is intended for students with dual interests in physics and computer science who wish to complete the essential courses for both majors within their normal four-year career.

REQUIRED LOWER DIVISION COURSES		UNITS
CSCI 101L	Fundamentals of Computer Programming	3
CSCI 102L	Data Structures	4
CSCI 110	Introduction to Digital Logic (Enroll in EE 101)	3
CSCI 201L	Principles of Software Development	4
CSCI 271	Discrete Methods in Computer Science	3
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 225	Linear Algebra and Linear Differential Equations	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 151L	Fundamentals of Physics I: Mechanics and Thermodynamics	4
PHYS 152L	Fundamentals of Physics II: Electricity and Magnetism	4

REQUIRED UPPER DIVISION COURSES		UNITS
CSCI 303	Design and Analysis of Algorithms	3
CSCI 357	Basic Organization of Computer Systems (Enroll in EE 357)	3
CSCI 402x	Operating Systems	3
MATH 445	Mathematics of Physics and Engineering II	4
PHYS 304	Mechanics	4
PHYS 408ab	Electricity and Magnetism	4-4
PHYS 438ab	Introduction to Quantum Mechanics and its Applications	4-4
PHYS 495	Senior Project	2
Total units		81

Bachelor of Arts in Physics

This program is intended for students with an interest in physics who may not intend to pursue a career in physics.

REQUIRED LOWER DIVISION COURSES		UNITS
CHEM 105aLbL**	General Chemistry	4-4
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 161L*	Advanced Principles of Physics I	4
PHYS 162L*	Advanced Principles of Physics II	4
PHYS 163L*	Advanced Principles of Physics III	4
PHYS 190	Freshman Colloquium	1

REQUIRED UPPER DIVISION COURSES		UNITS
MATH 445	Mathematics of Physics and Engineering II	4
PHYS 304	Mechanics	4
PHYS 316	Introduction to Thermodynamics and Statistical Physics	4
PHYS 408a	Electricity and Magnetism	4
PHYS 438a	Introduction to Quantum Mechanics and its Applications	4
PHYS 492L	Senior Laboratory	4
Choose one:		4
PHYS 408b	Electricity and Magnetism	
PHYS 438b	Introduction to Quantum Mechanics and its Applications	
PHYS 440	Introduction to Condensed Matter Physics	
PHYS 493L	Advanced Experimental Techniques	
Total units		65

*PHYS 151L, PHYS 152L and PHYS 153L may be substituted for the sequence PHYS 161L, PHYS 162L and PHYS 163L.

**CHEM 115aLbL may be substituted for the sequence CHEM 105aLbL.

Bachelor of Arts in Astronomy

This program is intended for students with an interest in astronomy who may not intend to pursue a career in the field.

REQUIRED LOWER DIVISION COURSES		UNITS
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 161L*	Advanced Principles of Physics I	4
PHYS 162L*	Advanced Principles of Physics II	4
PHYS 163L*	Advanced Principles of Physics III	4

REQUIRED UPPER DIVISION COURSES		UNITS
ASTR 400	The Solar System	4
ASTR 410	Stellar Astronomy	4
ASTR 420	Galaxies and Cosmology	4
ASTR 440	Astrophysics	4
PHYS 304	Mechanics	4
PHYS 316	Introduction to Thermodynamics and Statistical Physics	4
PHYS 493L	Advanced Experimental Techniques	4
Total units		56

*PHYS 151L, PHYS 152L and PHYS 153L may be substituted for the sequence PHYS 161L, PHYS 162L and PHYS 163L.

Bachelor of Science in Biophysics

This program is intended for students with an interest in the interdisciplinary field of biophysics. The degree program provides the physics and biology background necessary for the field while simultaneously fulfilling medical school entrance requirements.

REQUIRED LOWER DIVISION COURSES		UNITS
BISC 120L	General Biology: Organismal Biology and Evolution	4
BISC 220L	General Biology: Cell Biology and Physiology	4
CHEM 115aLbL*	Advanced General Chemistry	4-4
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 161L**	Advanced Principles of Physics I	4
PHYS 162L**	Advanced Principles of Physics II	4
PHYS 163L**	Advanced Principles of Physics III	4

REQUIRED UPPER DIVISION COURSES		UNITS
BISC 320L	Molecular Biology	4
BISC 330L	Biochemistry	4
BISC 421	Neurobiology	4
CHEM 322abL	Organic Chemistry	4-4
MATH 445	Mathematics of Physics and Engineering II	4
PHYS 304	Mechanics	4
PHYS 316	Introduction to Thermodynamics and Statistical Physics	4
PHYS 408a	Electricity and Magnetism	4
PHYS 438a	Introduction to Quantum Mechanics and its Applications	4
Total units		84

*CHEM 105aLbL may be substituted for the sequence CHEM 115aLbL.

**PHYS 151L, PHYS 152L and PHYS 153L may be substituted for the sequence PHYS 161L, PHYS 162L and PHYS 163L.

Bachelor of Science in Physical Sciences

This program is intended for students with an interest in the physical sciences. The program is designed to allow students interested in teaching at the secondary level to enroll in courses required for the California Single Subject Teaching credential offered through the School of Education.

REQUIRED LOWER DIVISION COURSES		UNITS
CHEM 115aLbL**	Advanced General Chemistry	4-4
GEOL 105L	Planet Earth	4
PHYS 151L	Fundamentals of Physics I: Mechanics and Thermodynamics	4
PHYS 152L	Fundamentals of Physics II: Electricity and Magnetism	4
PHYS 153L	Fundamentals of Physics III: Optics and Modern Physics	4

REQUIRED UPPER DIVISION COURSES	UNITS
Astronomy elective*	4
Chemistry elective*	4
Earth Science elective*	4
Physics elective*	4
Three additional electives from these fields*	12

*Upper division courses must be applicable to majors in their respective departments.

**CHEM 105aLbL may be substituted for the sequence CHEM 115aLbL.

OTHER COURSES		UNITS
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
Total units		64

Department Requirements for a Minor in Physics

The physics minor is open to all students. Engineering students must take a minimum of three upper division courses unique to the minor.

REQUIRED COURSES		28 UNITS
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
MATH 245	Mathematics of Physics and Engineering I	4
PHYS 151L	Fundamentals of Physics I: Mechanics and Thermodynamics	4
PHYS 152L	Fundamentals of Physics II: Electricity and Magnetism	4
PHYS 153L	Fundamentals of Physics III: Optics and Modern Physics	4

ELECTIVES — CHOOSE 3		12 UNITS
PHYS 304	Mechanics	4
PHYS 316	Introduction to Thermodynamics and Statistical Physics	4
PHYS 408a	Electricity and Magnetism	4
PHYS 438a	Introduction to Quantum Mechanics and its Applications	4
Total units		40

Department Requirements for a Minor in Astronomy

The astronomy minor is open to all students. A minimum of three courses taken toward the minor must be unique to the minor.

REQUIRED COURSES		24 UNITS
MATH 125	Calculus I	4
MATH 126	Calculus II	4
MATH 226	Calculus III	4
PHYS 151L	Fundamentals of Physics I: Mechanics and Thermodynamics	4
PHYS 152L	Fundamentals of Physics II: Electricity and Magnetism	4
PHYS 153L	Fundamentals of Physics III: Optics and Modern Physics	4

ELECTIVES — CHOOSE 3		12 UNITS
ASTR 400	The Solar System	4
ASTR 410	Stellar Astronomy	4
ASTR 420	Galaxies and Cosmology	4
ASTR 440	Astrophysics	4
Total units		36

Grade Point Average in Major Subject

A GPA of C (2.0) or higher is required in all upper division courses taken in the department for all of the above major degree programs. A grade of C (2.0) or higher is required in all courses in the department specifically listed as subject requirements.

Advisement

Advisement is required for all B.S. and B.A. degree candidates in the department. Students should meet with their departmental academic advisor at least once a semester to review the direction of their academic programs. Students who have not met with an advisor should contact the director of undergraduate affairs. Students are also encouraged to seek the advisement of faculty members whose specializations are appropriate to their intended field of graduate study.

Undergraduate Research Opportunities

Students are encouraged to become familiar with the research programs of the faculty in the department. Students who intend to pursue a Ph.D. and a career in research in physics or astronomy following graduation are strongly encouraged to become involved directly in one of the research programs, whether as summer research assistants or as part-time laboratory assistants during the academic year. Specific research opportunities will depend upon individual faculty research programs.

Graduate Degrees

The Department of Physics and Astronomy offers graduate study at the master's and doctoral degree levels. The graduate program prepares students for professional careers in research, teaching and developmental applications of physics.

Entering students spend time in intensive course work providing a broad background in advanced physics regardless of degree objective. Subsequent study involves a mix of course work, practical training and independent research (depending on degree objective).The doctoral program affords exceptionally close collaboration between students and faculty.

Research Areas: Experimental, Theoretical and Computational
Opportunities for research are offered in atomic, molecular and optical/laser physics, astrophysics, elementary particle theory, string theory, quantum field theory, earthquake physics, helioseismology, condensed matter physics, quantum electronics/nonlinear optics, space physics and ultralow temperature physics.

Degree Requirements
Graduate degrees in the Department of Physics and Astronomy are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Graduate study in physics is divided into three degree objectives:

Master of Science and Master of Arts in Physics
Admission Requirements
The prerequisite for admission for a master's degree in the Department of Physics and Astronomy is a bachelor's degree in physics or a related field. All applicants for admission must take the Graduate Record Examinations, including the Physics Subject Test. Transcripts of undergraduate records as well as transcripts of any graduate-level courses are required. The TOEFL is required of international students applying for a teaching assistantship and is strongly advised for those applying for admission only. Applicants may be admitted as a degree candidate at the beginning of fall or spring semester.

Residence
All M.S. and M.A. degree students normally take at least three courses for each of two semesters. A total of 24 units of credit is required for graduation. Admitted students may transfer a maximum of 4 units of credit to apply toward the degree requirements.

Foreign Language Requirement
There is no foreign language requirement for the M.S. or M.A.

Course Requirements
Option A M.S. in Physics: The M.S. degree requires satisfactory completion of seven courses (exclusive of PHYS 500 and PHYS 594), of which no more than one course may be PHYS 590 Directed Research. In addition, satisfactory completion of a thesis (and 4 units of PHYS 594) is required.

Option B M.A. in Physics: The M.A. degree requires satisfactory completion of eight courses (exclusive of PHYS 500 and PHYS 590) plus a high level of performance on the comprehensive examination.

The required courses for either option are PHYS 504, PHYS 508a and PHYS 558a. For either option at least five courses must be at the 500 level or higher and remaining courses at the 400 level or higher; at least five courses must be in physics. All required physics courses must be passed with a grade of B- or better. No upper division courses required for the B.A. in physics at USC may be counted for credit toward the M.A. or M.S. degree.

Comprehensive Examination
All master's degree candidates are required to take the departmental screening examination not later than during their second semester (excluding summer). This examination serves as the required comprehensive examination for the M.A. degree. A high level of performance is required for the M.A. degree, and a superior level is required for admission to (or continuation in) the Ph.D. program.

Master of Science in Physics for Business Applications
Admission Requirements
The prerequisite for admission to the Master of Science in Physics for Business Applications is a bachelor's degree in physics, chemistry, mathematics, engineering or related field. Applicants should have previous upper division course work in electricity and magnetism and quantum mechanics/modern physics. All applicants for admission must take the Graduate Record Examinations general test and are encouraged to take the Physics Subject Test. Transcripts of undergraduate records as well as transcripts of any graduate-level courses are required. The TOEFL is required of international students applying for a teaching assistanship and is strongly advised for those applying for admission only. Applicants may be admitted to the program at the beginning of fall or spring semester.

Residence
All full-time M.S. degree students are expected to take three courses toward the degree for each of the first three semesters. Part-time students are expected to complete at least three courses per calendar year. A total of 36 units of credit is required for graduation. Admitted students may transfer a maximum of 8 units of credit to apply toward degree requirements.

Foreign Language Requirement
There is no foreign language requirement for the M.S. degree.

Computer Language Requirement
By the end of the first semester in residence, students are required to demonstrate a skill level in programming in C or C++. This skill may be demonstrated by a practical exam or by passing a relevant computer language course.

Course Requirements
The M.S. in Physics for Business Applications degree requires completion of 36 units of course work plus satisfactory submission of a final technical report. The physics requirement is 17 units of courses, including PHYS 516, PHYS 518, PHYS 520, PHYS 558a, PHYS 650 and PHYS 692. The business requirement is 12 units of courses. Business courses may be selected from one of three tracks: Corporate Finance (GSBA 510, GSBA 548 and one of GSBA 518 or GSBA 543 are required with electives chosen from FBE 529, FBE 531, FBE 532 and FBE 562); Information Systems (GSBA 518 or GSBA 543 required with electives chosen from IOM 533, IOM 535, and IOM 540); or Operations Management (GSBA 518 or GSBA 543 required with electives chosen from IOM 525, IOM 537, IOM 581, IOM 582 and IOM 583). Alternative business tracks can be taken with departmental approval. An additional 6 units of technical electives are required, to be chosen from PHYS 408b, PHYS 440, PHYS 504, PHYS 510, PHYS 558b, MATH 407, MATH 408 or CSCI 480. Alternative technical electives can be taken with departmental approval. All required courses must be passed with a grade of B- or better.

Final Technical Report
All students in physics are required to submit a final technical report within one semester of completion of the internship PHYS 692. This report will be reviewed by the department to establish both its technical merit and the quality of written communication skills of the master's student. A grade will be registered for PHYS 692 upon satisfactory review of the final report.

Doctor of Philosophy in Physics
Admission Requirements
The prerequisite for admission to the doctoral program in the Department of Physics and Astronomy is a bachelor's (or master's) degree in physics or related field. All applicants for admission must take the Graduate Record Examinations, including the Physics Subject Test. Transcripts of undergraduate records as well as transcripts of any graduate-level courses are required. The TOEFL is required of international students applying for a teaching assistantship and is strongly advised for those applying for admission only. Applicants may be admitted to the program at the beginning of the fall or spring semester.

Application deadline: January 1

Residence
Ph.D. students in physics normally enroll in three courses for each of the first four semesters in graduate school. A total of 60 units of credit is required for graduation. Students admitted to the Ph.D. program may transfer a maximum of 30 units of credit to apply toward degree requirements. For students admitted with Advanced Standing (entry with an appropriate completed graduate degree from an accredited institution), a minimum of 36 units of course work beyond that graduate degree, exclusive of PHYS 794, will be required.

Foreign Language Requirement
There is no foreign language requirement for the Ph.D.

Course Requirements
The student is expected to have prepared for understanding all branches of physics. A minimum of 11 graduate courses in physics, excluding graduate colloquium, dissertation and directed research courses, taken at this university and elsewhere, is required. The required courses for the Ph.D. are PHYS 504, 508ab, PHYS 510, PHYS 518, and PHYS 558ab plus four elective graduate courses in physics. In addition, four units of PHYS 500 and PHYS 794 are required. All required physics courses (except 500 and 794) must be passed with a grade of B- or better. After passing the qualifying examination the student must register for PHYS 794 Doctoral Dissertation each fall and spring semester.

Screening Procedure
Any student proceeding toward the Ph.D. in physics must pass the departmental screening examination at a superior level. The exam must be taken not later than during the second semester (excluding summers, but including time in the M.A./M.S. program) in the department. New advanced students who have passed an equivalent comprehensive examination at a well-recognized research university with superior grades may apply to the departmental examination committee for an oral interview in order to be exempted from the written screening examination. A faculty member who supervises the research of such a student in the department must support this application.

Guidance Committee
The graduate advisor serves as advisor to incoming students and assists in the appointment of the guidance committee, which is formed after the screening examination has been passed. After the student passes the qualifying examination and a dissertation topic is approved, the five-member guidance committee becomes known as the dissertation committee and is responsible for monitoring the candidate's progress and for approving the final content and form of the dissertation.

Qualifying Examination
The qualifying examination must be attempted not later than during the fifth semester (or in the case of advanced students, the third semester) in the department (excluding summer). The Ph.D. qualifying examination contains a written part and an oral part. The written part consists of a critical review by the student of a published work selected by the guidance committee and of a research proposal prepared by the student on the area in which the student intends to do a doctoral dissertation. The oral part expands on the written part.

Dissertation
A doctoral dissertation in physics is expected to be an extensive description of original research carried out by the student. A complete discussion of reported research in relation to previous work by others is essential.

Defense of the Dissertation
The dissertation must be defended in a final oral examination. The candidate must be prepared to answer general questions in the field as well as specific questions regarding the dissertation.

Courses of Instruction

ASTRONOMY (ASTR)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

ASTR 100Lxg The Universe (4, FaSp) Survey of the universe: planets, satellites, comets, stars, nebulae, galaxies. Practical component includes planetary observations and dark-sky field trip. Not available for major credit.

ASTR 104L Special Laboratory (1, FaSp) Laboratory component for ASTR 100Lxg for transfer students with equivalent lecture credit from another institution. For transfer students only. Graded CR/NC.

ASTR 200Lxg Earth and Space (4) Study of earth as a physical object and an object in space. Topics include seismic events, earth interior, other planets, formation of the sun and earth. Not available for major credit.

ASTR 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

ASTR 400 The Solar System (4, 2 years, Fa) Earth's motions; planets and their satellites; comets; meteorites; interplanetary matter; elementary celestial mechanics. *Prerequisite:* MATH 226.

ASTR 410 Stellar Astronomy (4, 2 years, Sp) The nature and dynamics of the sun, stars, star clusters, interstellar medium, and the structure of our galaxy. *Prerequisite:* MATH 126.

ASTR 420 Galaxies and Cosmology (4, 2 years, Fa) Galaxies and clusters of galaxies: their content, structure, dynamics, distribution, and motions; observational cosmology. *Prerequisite:* PHYS 153*L* or PHYS 163*L*.

ASTR 440 Astrophysics (4, 2 years, Sp) Introduction to the theory of stellar structure, stellar atmospheres, the evolution of the sun and stars. *Prerequisite:* PHYS 153*L* or PHYS 163*L*.

ASTR 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit. *Prerequisite:* one upper division course in astronomy and departmental approval.

PHYSICS (PHYS)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

PHYS 030x Tools for Physics (2, Fa) Elementary course to prepare students for Physics 151*L;* emphasis on techniques for problem solving in physics. Not available for degree credit. Graded CR/NC.

PHYS 051x Problem Solving in Mechanics and Thermodynamics (1) Intensive practice in solving elementary problems within a student-centered learning environment. Not available for degree credit. Graded CR/NC. *Concurrent enrollment:* PHYS 151*L*.

PHYS 100Lxg The Physical World (4, FaSp) The fundamentals of physics presented with emphasis on the structure and beauty of physical laws. Practical component will relate these laws to commonly encountered events. Not available for major credit.

PHYS 125Lg Physics for Architects (4, Sp) Fundamental laws and principles of physics with emphasis on the application of physical principles to the problems of architecture. Lecture, 4 hours; laboratory, 3 hours. (Duplicates credit in PHYS 135*abL*.) *Prerequisite:* MATH 108.

PHYS 135abL Physics for the Life Sciences (4-4, FaSpSm) Fundamental laws and principles of physics emphasizing areas related to life sciences; prerequisite for biological sciences, medicine, dentistry, and pharmacy. Lecture, 4 hours; laboratory, 3 hours. (Duplicates credit in PHYS 125*abL*.) *Prerequisite:* Passing of Math Placement Exam or MATH 108 or MATH 125 or MATH 126 or MATH 226.

PHYS 151Lg Fundamentals of Physics I: Mechanics and Thermodynamics (4, FaSpSm) Gateway to the majors and minors in Physics and Astronomy. Statics and dynamics of particles and rigid bodies, conservation principles, gravitation, simple harmonic oscillators, thermodynamics, heat engines, entropy. Lecture, 3 hours; laboratory, 3 hours. *Prerequisite:* MATH 125 or MATH 126 or MATH 226.

PHYS 152L Fundamentals of Physics II: Electricity and Magnetism (4, FaSpSm) Electrostatics, magnetostatics, electrical circuits, wave motion, sound waves, electromagnetic waves. Lecture, 4 hours; laboratory, 3 hours. *Prerequisite:* PHYS 151*L,* MATH 126; *corequisite:* MATH 226.

PHYS 153L Fundamentals of Physics III: Optics and Modern Physics (4, FaSpSm) Geometrical optics, interference, diffraction, special relativity, quantum mechanics, atomic physics, solid state physics. Lecture, 3 hours; laboratory, 3 hours. *Prerequisite:* PHYS 152*L*.

PHYS 161L Advanced Principles of Physics I (4, Sp) Gateway to the majors and minors in Physics and Astronomy. Introductory treatment intended for well-qualified students. Dynamics of particles and rigid bodies, conservation laws, wave motion, thermodynamics, heat engines, entropy. Lecture, 3 hours; laboratory, 3 hours. *Prerequisite:* MATH 125; *corequisite:* MATH 126.

PHYS 162L Advanced Principles of Physics II (4, Fa) Electrostatics, magnetostatics, electrical circuits, electrical and magnetic properties of matter, Maxwell's equations, electromagnetic waves, propagation of light. Lecture, 4 hours; laboratory, 3 hours. *Corequisite:* MATH 226; *recommended preparation:* PHYS 161*L*.

PHYS 163L Advanced Principles of Physics III (4, Sp) Interference and diffraction of waves, special relativity, quantum mechanics, atomic physics, nuclear physics, condensed matter physics, elementary particles. Lecture, 3 hours; laboratory, 3 hours. *Prerequisite:* PHYS 162*L*.

PHYS 190 Freshman Colloquium (1, Fa) Introduction to current research activities of the faculty of the Department, and topics of current and popular interest among the wider community of physicists. Graded CR/NC.

PHYS 200Lxg The Physics and Technology of Energy: Keeping the Motor Running (4, FaSp) Investigation of energy technologies, including development and implementation issues. Topics include the industrial revolution, electromagnetic induction, power transmission, combustion engines, fission and fusion. Not available for major credit.

PHYS 304 Mechanics (4, Fa) Dynamics of particles, kinematics of rotations, rigid body motion, Lagrangian and Hamiltonian formalism, theory of small vibrations. *Prerequisite:* PHYS 151*L* or PHYS 161*L,* MATH 245.

PHYS 316 Introduction to Thermodynamics and Statistical Physics (4, 2 years, Sp) First, second, and third thermodynamic laws; thermodynamic potentials, applications; distribution laws, kinetic theory, transport phenomena, specific heats. *Prerequisite:* PHYS 152*L* or PHYS 161*L,* MATH 226.

PHYS 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

PHYS 408ab Electricity and Magnetism (a: 4, Fa; b: 4, Sp) *a:* Electrostatics; thermal, chemical, magnetic effects of steady currents; DC circuits. *b:* Electromagnetic induction; AC circuits; Maxwell's equations. *Prerequisite:* PHYS 152*L* or PHYS 162*L; corequisite:* MATH 245 (for PHYS 408*a*), MATH 445 (for PHYS 408*b*).

PHYS 438ab Introduction to Quantum Mechanics and its Applications (a: 4, Sp; b: 4, Fa) *a:* Concepts and techniques of quantum mechanics; free and bound states, the hydrogen atom. *b:* Relativity, atomic spectra, quantum statistics, nuclear models, nuclear reactions, elementary particles. *Prerequisite:* PHYS 304; *corequisite:* MATH 445.

PHYS 440 Introduction to Condensed Matter Physics (4, Irregular, Sp) Crystal structures, x-ray diffraction, thermal properties of solids, diamagnetism and paramagnetism, free-electron model of metals, semiconductors, ferromagnetism, super-conductivity, imperfections in crystals. *Corequisite:* PHYS 438*a*.

PHYS 472 Introduction to Lasers and Laser Systems (3, Fa) (Enroll in EE 472)

PHYS 473L Lasers and Optics Laboratory (3, Sp) (Enroll in EE 473*L*)

PHYS 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit.

PHYS 492L Senior Lab (4, Fa) Projects will include experiments in mechanics, thermodynamics, electricity and magnetism. Emphasis on laboratory work with discussion of theoretical background. Lecture, 2 hours; laboratory, 6 hours. *Prerequisite:* PHYS 152*L*.

PHYS 493L Advanced Experimental Techniques (4, Sp) Development of modern experimental techniques, including computer interface with data acquisition hardware and data analysis by software, applied specifically to experiments in modern physics. Emphasis on laboratory work with discussion of theoretical background. Lecture, 2 hours; laboratory, 6 hours. *Prerequisite:* PHYS 152*L*.

PHYS 495 Senior Project (2) An original project will be constructed applying computer technology (in either hardware or software) to produce a result useful in the physics classroom or laboratory.

PHYS 499 Special Topics (2-4, max 4) Lectures and discussions on specialized topics in physics.

PHYS 500 Graduate Colloquium (1, Max 4, FaSp) Topics of current research interest in physics and astronomy. Lectures directed to physics graduate students by faculty of the department and by outside speakers. Graded CR/NC.

PHYS 502 Advanced Optics (3, Irregular) Interaction of light and matter; laser oscillation condition; optical resonators; spectroscopy; pumping mechanisms; characteristics of dielectric, semiconductor, gas, and liquid lasers; topics in nonlinear optics.

PHYS 504 Advanced Mechanics (3, Fa) Newtonian formulation of dynamics; Hamilton's principle; Lagrangian formulation; rigid body motion; Hamiltonian formulation; Hamilton-Jacobi theory; vibrations.

PHYS 508ab Advanced Electricity and Magnetism (a: 3, Sp; b: 3, Fa) *a:* Electrostatics, boundary value problems, multipole expansions, microscopic models of matter, magnetostatics. *b:* Maxwell's equations, potentials and gauge transformations; electromagnetic waves; wave guides; electromagnetic radiation; special relativity.

PHYS 510 Methods of Theoretical Physics (3, Fa) Vector analysis; infinite, asymptotic Fourier series; complete sets; Dirac delta function; Fourier, Laplace transforms; Legendre functions; spherical harmonics; Sturm-Liouville theory; orthogonal polynomials; gamma-factorial function; complex variables.

PHYS 514 Methods of Experimental Physics (3, Irregular) Techniques of general utility in contemporary physics research, with emphasis on the use of commercially available instrumentation.

PHYS 516 Methods of Computational Physics (3, Sp) Introduction to algorithm development. Integration of ordinary differential equations; chaotic systems; molecular dynamics; Monte Carlo integration and simulations; cellular automata and other complex systems. *Recommended preparation:* ability to program in C or C++.

PHYS 518 Thermodynamics and Statistical Mechanics (3, Fa) Principles of, and relations between, thermodynamics and statistical mechanics; ensembles, partition function formalism; quantum statistics of non-interacting particles; fluctuations.

PHYS 520 Methods for Complex Systems (3, Fa) Probabilities, random walks, generalized central limit theorems, probabilities in thermodynamics, critical phenomena, self organized criticality, phenomenology of catastrophies, dynamical systems and examples from outside physics.

PHYS 530 Relativity (3, Irregular) Fundamentals of the special theory and applications to classical and quantum physics; the principle of equivalence; tensor analysis and Einstein's theory of gravitation; relativistic cosmology. *Recommended preparation:* PHYS 504*a*, PHYS 508*a*.

PHYS 540 Solid State Physics (3, Fa) Fundamental concepts and techniques in solid state physics; electron gas at metallic densities; semiclassical transport; crystallography; band structure; phonons; screening; superconductivity; magnetic ordering. *Recommended preparation:* PHYS 518*a*, PHYS 558*a*.

PHYS 558ab Quantum Mechanics (a: 3, Sp; b: 3, Fa) *a:* General formulation of quantum mechanics with applications; theory of measurement; exactly solvable problems; angular momentum formalism. *b:* Approximation schemes and applications to atomic and molecular physics and scattering theory; identical particles; electromagnetic properties of atoms.

PHYS 566 Neural Network Self-Organization (3, Sp) (Enroll in CSCI 566)

PHYS 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PHYS 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded IP/CR/NC.

PHYS 640 Advanced Condensed Matter Physics (3, Sp) Magnetism, magnons; superconductivity; transport phenomena; many-body effects; interacting electron gas; Hartree-Fock theory; neutron and x-ray scattering; and other selected topics. *Recommended preparation:* PHYS 540, PHYS 558*b*.

PHYS 650 Topics in Current Research (2, Fa) Course content will vary each year. It will include topics of current interest in research conducted in academia and industry.

PHYS 668 Advanced Quantum Mechanics (3, Sp) Relativistic wave equations; second quantization of Klein-Gordon, Dirac and Maxwell fields; applications in quantum electrodynamics and condensed matter physics. *Recommended preparation:* PHYS 558*b*.

PHYS 670 High Energy Physics (3, Irregular) Elementary particles and the fundamental forces acting on them. Quarks, leptons, symmetries, gauge invariance, spontaneously broken symmetry, electroweak theory, quantum chromodynamics grand unified theory, strings. *Recommended preparation:* PHYS 668.

PHYS 678 Relativistic Quantum Field Theory (3, Irregular) Computational methods in relativistic quantum field theory: Feynman path integral, covariant perturbation theory, regularization, renormalization group, and non-perturbative techniques. *Recommended preparation:* PHYS 668.

PHYS 680 Advanced Quantum Field Theory (3, Irregular) Renormalization, quantization of gauge theories, non-Abelian gauge theories, quantum chromodynamics, spontaneous symmetry breaking, the standard model, anomalies. *Recommended preparation:* PHYS 678.

PHYS 692 Internship (3 or 6, max 6, FaSpSm) Field application of physics in a business or industry setting; part-time employment. Project to be jointly defined by student, employer and professor. Open to M.S. Physics for Business Applications degree candidates only.

PHYS 710 Selected Topics in Experimental Physics (3, max 6) Course content will vary yearly with current interest. Topics covered may include superconducting quantum interference devices, scanning tunneling microscopy, and laser cooling and trapping of single atoms.

PHYS 720 Selected Topics in Theoretical Physics (3, max 6) Course content will vary yearly with current interest. Topics covered may include field theory, many body theory, Green's functions, dispersion theory, and group theory.

PHYS 730 Selected Topics in Particle Physics (3, max 6) Various advanced phases of particle physics. Content will vary yearly; emphasis on superstring theories, advanced topics in quantum gravity, and field theory. *Recommended preparation:* PHYS 678.

PHYS 740 Selected Topics in Condensed Matter Physics (3, max 6) Course content will vary yearly with current interest. Topics covered may include theory of superconductivity, high temperature superconductivity, Green's functions in condensed matter physics, magnetism and transport in disordered metals.

PHYS 750o Off Campus Studies (3, max 9) Course work taken on campus at Caltech as part of the Caltech-USC cross-registration program. Graded CR/NC.

PHYS 790 Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PHYS 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

Political Economy and Public Policy

Van KleinSmid Center 328A
(213) 740-2138
FAX: (213) 740-0281
Email: cwise@usc.edu
www.usc.edu/dept/LAS/economics/grad/index.htm

Directors: John Odell and Carol Wise *(International Relations)*

Participating Faculty: See Economics, International Relations and Political Science in this catalogue.

The graduate program in political economy and public policy (PEPP) is offered jointly by the Department of Economics, the School of International Relations and the Department of Political Science. It is concerned with interactions between politics and economics and their relations to the policy process. It prepares students for careers in teaching, research, industry and government. A Doctor of Philosophy degree, normally requiring three to five years of study, is offered. The Master of Arts degree (M.A.) in PEPP requires successful completion of a comprehensive examination and 32 units of approved course work or the completion of at least 24 units of approved course work and completion of an acceptable thesis accompanied by registration in PEPP 594ab. Students who have already completed requirements for an M.A. degree in either economics, international relations, or political science will normally be able to apply much of their master's program toward meeting requirements for the Ph.D. degree in PEPP. These programs are no longer admitting new students.

A student admitted to the Ph.D. program in PEPP who also wishes to pursue a Master of Arts (M.A.) in Economics or Political Science should apply directly to one of those departments for separate admission to the respective M.A. program.

Graduate Degrees

Degree Requirements
These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Master of Arts in Political Economy and Public Policy
The graduate program in Political Economy and Public Policy does not admit students whose objective is a master's degree. However, if a student accepted into the program does not have a master's degree, it is strongly recommended that he or she complete the requirements for the M.A. in the process of work toward the Ph.D. degree. This involves 32 units of approved course work or at least 24 units of approved course work and completion of an acceptable thesis accompanied by registration in PEPP 594ab.

Doctor of Philosophy in Political Economy and Public Policy
Course Requirements
Applicants are no longer being accepted to this program. The minimum number of course credits required for the Ph.D. is 62 units (16 courses), exclusive of 794 Doctoral Dissertation. Each student must satisfy (a) core requirements and (b) area requirements.

A. Core requirements include 38 units (10 courses) as follows:
Economic Theory (3 courses, 12 units) — ECON 500 or ECON 503, ECON 501 or ECON 505, ECON 527.
Political Theory (1 course, 4 units) — POSC 530 or POSC 650 or POSC 652.
International Political Economic Theory (1 course, 4 units) — IR 500 or IR 501 or IR 541.
Methodology (2 courses, 8 units) — ECON 511 or ECON 513 and POSC 600 or equivalent.
Political Economy (3 courses, 10 units) — PEPP 539 and PEPP 695, ECON 634 or PEPP 538.

B. Area requirements: The Ph.D. candidate must select option 1, 2 or 3.

Option 1: Comparative and Developmental Political Economy (6 courses, 24 units from a and b)
a. Comparative/Developmental Economics (3 courses, 12 units) — PEPP 639 or ECON 541 or ECON 546 and two of the following: ECON 523, ECON 634 (if not taken above),

ECON 538, ECON 541 (if not taken above), ECON 546 (if not taken above), ECON 604, ECON 639 (if not taken above), ECON 644.
b. Comparative/Developmental Politics
(3 courses, 12 units) — POSC 520 or IR 545 and any two of the following: POSC 520 (if not taken above), POSC 640; IR 545.
Middle East and North Africa — POSC 535; IR 581
Europe — POSC 630; IR 543
The USSR — POSC 633, POSC 637
Latin America — POSC 632; IR 556
Asia and the Pacific — POSC 633, POSC 634, POSC 637; IR 561, IR 563
Africa — POSC 636; IR 557

Option 2: Politico-Economic Institutions and Processes (6 courses, 24 units from a and b)
a. Economic Analysis and Public Policy
ECON (3 courses, 12 units), selected as follows: PEPP 639 or ECON 537 or ECON 634 and any two of the following (may include an approved course not on this list):
ECON 523, ECON 537; PEPP 538 (if not taken above), PEPP 639 (if not taken above); ECON 657, ECON 671, ECON 680, ECON 681.
b. Politics and the Policy Process
POSC/IR (3 courses, 12 units), selected as follows: POSC 510 or IR 521 and any two of the following: POSC 510 (if not taken above), POSC 546, POSC 556, POSC 610, POSC 611, POSC 612, POSC 618, POSC 621, POSC 622, POSC 641, POSC 670; IR 506, IR 517, IR 521, IR 524, IR 543, IR 547, IR 599.

Option 3: International Political Economy
(6 courses, 24 units from a and b)
a. International Economics
PEPP 639 or ECON 650 and any two of the following (may include one approved course not on this list): PEPP 639, ECON 523, ECON 541, ECON 546, ECON 634, ECON 644, ECON 650, ECON 651.
b. International Relations
IR 541* (if not taken above) and any two of the following (may include one approved course not on this list): IR 506, IR 542, IR 543, IR 544, IR 545, IR 547, IR 550, IR 553, IR 599; POSC 546, POSC 670.

*If this course has been taken to fulfill a core requirement, one or more of the courses listed should be taken.

Screening Procedure
The screening procedure, administered no later than the semester in which the student has completed 24 units of study, includes review of course grades and may also include a written examination. Normal preparation would include 24 units (six courses) drawn from the core requirements described above. If the student successfully completes the screening procedures, he or she continues toward the Ph.D. degree.

Foreign Language/Research Tool Requirements
The student is expected to complete the language/research tool requirement of the program. Normally, this is fulfilled by successful completion of the quantitative research method component of the core requirements. A knowledge of one major foreign language is required only if it is necessary for the student's major area of specialization or research.

Guidance Committees
The guidance committee, established upon successful completion of the screening procedure, consists of five members: one representing economic theory and the history of economic theory; one representing political thought and the history of political thought; one representing the student's major area of concentration from the Department of Economics; one representing the student's major area of concentration from the Department of Political Science or the School of International Relations; and one serving as an outside member of the committee from an outside department. The guidance committee helps the student plan a program of study, recommends proper preparation for the qualifying examination, and administers the oral portion of the examination.

Qualifying Examination
Qualifying examinations are scheduled by the PEPP Office twice per year, once each in the fall and spring semesters, respectively. Successful completion of the screening procedure and establishment of a guidance committee are prerequisite to scheduling the qualifying examination.

The qualifying examination is composed of two written examinations, one in contending perspectives, and one in general political economy; one from applied political economy, history of economic and political thought, or general political economy, and an oral examination, normally including an initial dissertation proposal.

The written examinations presume that students have successfully completed at least five theory courses in political economy, as specified above, and at least four (out of six) courses in their designated applied field. These examinations, however, test the student in political economy as a whole, not merely in a particular course or set of courses. They presume familiarity with the literature, notably, the sources listed in "Basic Works in Political Economy," available at the PEPP Office.

The oral component of the qualifying examination is conducted by the student's guidance committee members, and must be scheduled to occur within 60 days following the written examinations. At the oral examination, the student may be given the opportunity to elaborate or clarify questions from the written examinations, including (since written examinations will normally provide some degree of choice) questions which the student chose not to answer. The student will also be expected to discuss his or her prospective dissertation topic with the guidance committee. The student is therefore expected to prepare a brief written dissertation prospectus in advance of the oral examination. In exceptional circumstances and with the concurrence of the chairperson of the guidance committee, the dissertation proposal requirement may be postponed for a period of up to three months.

Dissertation
The Ph.D. dissertation will typically constitute original research in political economy, including a critical review of the literature in the relevant area. Each student begins preliminary work on the dissertation in the semester in which the qualifying examination is scheduled. A dissertation proposal is presented at the time of the qualifying oral examination or within three months thereafter. The bulk of the work on the dissertation should be completed within the following two years.

Dissertation Committee
Upon passing the qualifying examination, a student is admitted to candidacy. After admission to candidacy, the student is expected to register for 794 Dissertation (two semester minimum). The student is expected to register in 794 each semester, until the dissertation and all other degree requirements are completed. In addition to the primary chair from one of the three departments, the dissertation committee is composed of a secondary chairperson from a second department and a third faculty member from the third department or an outside department, who will serve as outside member. A faculty member from the Economics Department must serve as either primary or secondary chair.

Defense and Submission of the Dissertation
When the dissertation committee agrees that the student has essentially completed the research and a satisfactory draft of the dissertation has been written, the oral defense is scheduled. If the dissertation committee agrees to pass the student, all suggested extensions, modifications and corrections are incorporated into the final draft which must be approved by all members of the committee.

See the Graduate School section, page 94, regarding submission of the dissertation.

Courses of Instruction

POLITICAL ECONOMY AND PUBLIC POLICY (PEPP)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

PEPP 538 Values and Social Analysis (4) (Enroll in ECON 538)

PEPP 539 Political Economy (4, Fa) Scope, methodology, and literature of political economy; public policy and policy formation; economic bases of politics; political dimensions of economic activity.

PEPP 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded CR/NC. *Recommended preparation:* 24 approved units of course work.

PEPP 599 Special Topics (2-4, max 8) Selected topics in political economy and public policy as developed by the instructor.

PEPP 634 Political Economy of Institutions (4) (Enroll in ECON 634)

PEPP 639 Contemporary Economic Policy: Theory and Practice (4) (Enroll in ECON 639)

PEPP 695 Seminar in Political Economy (2, Sp) Current research in political economy and public policy presented by outside scholars, faculty, and students. Graded CR/NC.

PEPP 790 Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PEPP 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

Political Science

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Chair: Ann N. Crigler, Ph.D.*
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Faculty

Anna H. Bing Dean's Chair in the College of Letters, Arts and Sciences: Howard Gillman, Ph.D.

USC Associates Chair in Social Science: Mark E. Kann, Ph.D.*

Professors: Terry Cooper, Ph.D. *(Policy, Planning and Development);* Ann Crigler, Ph.D.; Richard H. Dekmejian, Ph.D.; Mary Dudziak, J.D. *(Law);* Susan Estrich, J.D. *(Law);* James Ferris, Ph.D. *(Policy, Planning, and Development);* Elizabeth Garrett, J.D. *(Law);* Tom Gilligan, Ph.D. *(Business);* Howard Gillman, Ph.D.*; Elizabeth Graddy, Ph.D. *(Policy, Planning and Development);* Nora Hamilton, Ph.D.; Thomas Hollihan, Ph.D. *(Communication);* Sharon Lloyd, Ph.D. *(Philosophy);* John Matsusaka, Ph.D. *(Finance and Business Economics);* Dan Mazmanian, Ph.D. *(Policy, Planning, and Development);* Edward McCaffery, J.D. *(Law);* Glenn Melnick, Ph.D. *(Policy, Planning, and Development);* Michael B. Preston, Ph.D.*; Alison D. Renteln, Ph.D.*; Stanley Rosen, Ph.D.*; Eliz Sanasarian, Ph.D.*; Edwin Smith, J.D. *(Law);* Matthew Spitzer, J.D. *(Law);* Shui Yan Tang, Ph.D. *(Policy, Planning, and Development);* Priscilla Wohlstetter, Ph.D. *(Education)*

Associate Professors: Kareem U. Crayton, J.D. *(Law);* Juliet Musso, Ph.D. *(Policy, Planning, and Development);* Leland Saito, Ph.D. *(Sociology);* Jefferey M. Sellers, Ph.D.; Marita Sturken, Ph.D. *(Communication);* Janelle Staci Wong, Ph.D.

Assistant Professors: John E. Barnes, Ph.D.*; Ricardo Ramirez, Ph.D.; Apichai Shipper, Ph.D.

Adjunct Assistant Professors: Anthony Kammas, Ph.D.; Olu K. Orange, J.D.

Emeritus Professors: Herbert E. Alexander, Ph.D.; Carl Q. Christol, Ph.D., L.L.B., L.L.D. (Hon.)*; John R. Schmidhauser, Ph.D.; George O. Totten III, Ph.D.; C. Sylvester Whitaker, Ph.D.

Emeritus Associate Professor: Joseph L. Nyomarkay, Ph.D.*

*Recipient of university-wide or college teaching award.

The Department of Political Science divides political science into four broad fields: American politics, political thought, comparative politics, and law and public policy. The department offers regional specialization in six areas: Latin America, East Asia, Western Europe, Russia and Eastern Europe, the Middle East, and Africa. The Jesse M. Unruh Institute of Politics provides local internships for students as part of their course work or as independent study (see page 420).

Degree Programs

The Department of Political Science offers: the B.A.; minors in political science; law and society; race, ethnicity and politics; human rights; and political organizing in the digital age. The department also offers M.A. and Ph.D. degrees under the jurisdiction of the Graduate School, as well as a dual Ph.D. in Politics and International Relations/Juris Doctor with the USC Gould School of Law.

Undergraduate Degrees

Advisement
The department has faculty and staff advisors who provide academic advisement, career counseling and advisement to pre-law students and those wishing to go on to graduate studies. All majors are encouraged to see their advisor.

Major Requirements for the Bachelor of Arts in Political Science
Department majors are required to take nine courses (36 units) in political science. At least two of the nine courses must be selected from the four 100-level core courses: POSC 100 Theory and Practice of American Democracy, POSC 110 Ideology and Political Conflict, POSC 120 Comparative Politics, POSC 130 Law, Politics and Public Policy.

In addition, at least six of the nine courses must be at the 300-level or above, including at least one course in each of the following four fields: American politics, political thought, comparative politics, and law and public policy. No more than one course (or four units) of POSC 395 or POSC 490x may be counted toward the 36 unit departmental requirements.

Students who have a double major in political science and in another department in the social sciences, may, with prior permission of the department undergraduate advisor, substitute one upper division course from the second major for one upper division political science course. In the development of an undergraduate program, students should consult periodically with the political science undergraduate advisor and/or with departmental faculty.

Area Specialization
While majoring in political science and fulfilling the department requirements, a student may elect to emphasize a particular regional area in the fields of comparative government, diplomacy and international politics. Regional specializations are offered in six areas: East Asia, Western Europe, Latin America, Middle East, Africa, Russia and Eastern Europe. With the approval of the faculty, a student may organize an academic program in such a way as to fulfill the general education language requirements with the language or languages of the regional area specialization. In addition, it is assumed the student will fulfill other social sciences and humanities requirements and electives with courses focusing on the history and culture of the particular area of specialization. Such a pattern of courses at the undergraduate level will strengthen a student's qualifications for graduate-level area programs, as well as for various forms of foreign service.

Political Science Minor
Students who minor in political science must take five courses, 20 units in political science. Students can either pursue course work in a traditional subfield (American politics, comparative politics, law and public policy, or political theory) or in a specific issue area of concentration (civil liberties and human rights, race, ethnicity, and gender, urban political problems, Asian politics, etc.).

Those who focus their studies on a traditional subfield must take the lower-level introductory course in that subfield: POSC 100 Theory and Practice of American Democracy (American politics); POSC 110 Ideology and Political Conflict (political theory); POSC 120 Comparative Politics (comparative politics) or POSC 130 Law, Politics and Public Policy (law and public policy).

Students pursuing the minor must also take four upper-division courses, three of which must be in the chosen subfield. Students choose from a predetermined list of courses divided by subfield in consultation with and approval of the department's undergraduate student advisor.

Those who pursue a specific issue area of concentration are required to take the department's designated gateway course, POSC 120 Comparative Politics, and at least three upper-division courses in the issue area of concentration. A fourth upper division course must be taken in the issue area of concentration or a complementary area. The upper division courses are chosen in consultation with and approval of the department's undergraduate student advisor.

Human Rights Minor
The protection of human rights has become a matter of international concern. Despite widespread media coverage of violations, flagrant abuses occur daily throughout the world. The human rights minor provides students with in-depth knowledge about various human rights issues.

Drawing together classes from a range of departments in and outside the College of Letters, Arts and Science, this interdisciplinary minor will cover the theoretical foundations of human rights, historical and current developments, case studies and policies. Students will be required to take their learning outside the classroom through an internship or by teaching human rights in the community and will be encouraged to join relevant student organizations.

Total unit requirements for the minor are 18*. Students take one core course in human rights, POSC 448*a* The Politics of Peace. In addition, the minor requires two courses dealing with international human rights, one domestic human rights related course and a community involvement experience through the Department of Political Science.

Required Courses (16 units)
POSC 448a

Two international human rights courses selected from:
ANTH 330, HIST 456, HIST 365, IR 310, IR 315, IR 316, IR 318, IR 325, POSC 366, POSC 440, POSC 456, PPD 382, REL 335

One domestic human rights course selected from:
COMM 412, FREN 370, GEOG 350, GERO 435, JOUR 466, POSC 333, POSC 380, POSC 441, POSC 444, PPD 342, PPD 439, SOCI 356, SOCI 360

Community Involvement (2 units)
Students are required to take their learning outside the classroom through an internship with a focus in human rights, teaching human rights in the community or an independent project. Students who choose the internship must enroll in POSC 395 and those who choose do an independent project must enroll in POSC 490*x*. Approval is needed to enroll in POSC 395 and POSC 490*x*.

* POSC majors must take four courses (16 units) outside of the Political Science Department for a total of *22* units.

Law and Society Minor
This interdisciplinary program focuses on the effect of law on society as well as the ways in which social forces influence the legal system. The idea is that students will understand the law if they look beyond "law on the books" to "law in action." Thus, it is important to study key legal institutions such as the legal profession, the judiciary, juries, the police, legislatures, and administrative agencies. In addition, the minor introduces students to legal policies like plea bargaining and the death penalty, and the constitutional principles that underlie political debates about them, e.g., equal protection, due process and privacy.

The requirements for the minor include seven courses (28 units). All students are required to take POSC 130 Law, Politics, and Public Policy. Three component political science upper division courses are required, one from each category:

A. Constitutional Law (POSC 340 or POSC 444)
B. International Law (POSC 345 or POSC 448a)
C. Policy Analysis (POSC 333, POSC 347, POSC 395, POSC 432, POSC 435, POSC 436, POSC 440, POSC 441, POSC 442, POSC 443, POSC 448b or POSC 452)

Three elective courses are required, one from each category. Non-political science majors must take at least one upper-division elective course; all three elective courses must be upper-division for political science majors.

A. Humanistic/Historical (PHIL 340, PHIL 430, POSC 426)
B. Sociology (SOCI 351 or SOCI 353)
C. Other (ANTH 345, COMM 421, ECON 434, LAW 200x or PSYC 355)

Take one course from each of the following seven categories:

1. Core – POSC 130
2. Constitutional Law – POSC 340 or POSC 444
3. International Law – POSC 345 or POSC 448a
4. Policy Analysis – POSC 333, POSC 347, POSC 395, POSC 432, POSC 435, POSC 436, POSC 440, POSC 441, POSC 442, POSC 443, POSC 448b or POSC 452
5. Humanistic/Historical – PHIL 340, PHIL 430
6. Sociology – SOCI 351 or SOCI 353
7. Other – ANTH 345, COMM 421, ECON 434, LAW 200x or PSYC 355

At least four classes must be unique to the minor. Political science majors must take upper-division courses only from categories 5, 6 and 7. Non-political science majors must take at least one upper-division course from 5, 6 or 7.

Race, Ethnicity and Politics Minor

The interdisciplinary minor in race, ethnicity and politics helps students analyze and critically evaluate contemporary race relations and how race matters in politics today.

*Requirements: Five courses (20 units)**
All students are required to take POSC 421 Ethnic Politics. In addition, students must also take one course from each category: Race and Gender in a Global Context, Comparative Racial Politics, Social/Historical (Racial Perspective) and Racial Formation. The following is a list of courses that fulfill each category.

CORE REQUIREMENT		UNITS
POSC 421	Ethnic Politics	4

POLITICAL SCIENCE UPPER DIVISION COURSES		UNITS

Choose one course from each of the groups below:

Race and Gender in a Global Context

POSC 350	Politics of Latin America	4
POSC 351	Middle East Politics	4
POSC 352	Politics of Southeast Asia	4
POSC 354	Japanese Politics	4
POSC 356	Politics in the People's Republic of China	4
POSC 358	Politics of Sub-Sahara Africa	4
POSC 430	Political Economy of Mexico	4
POSC 431	Political Economy of Central America	4
POSC 452	Critical Issues in Law and Public Policy	4
POSC 456	Women in International Development	4
POSC 464	Politics of Russia and Eastern Europe	4

Comparative Racial Politics

POSC 320	Urban Politics	4
POSC 328	Asian American Politics	4
POSC 424	Political Participation and American Diversity	4
POSC 427	Black Politics in the American Political System	4
POSC 428	Latino Politics	4
POSC 441	Cultural Diversity and the Law	4
POSC 442	The Politics of Human Differences: Diversity and Discrimination	4
POSC 444	Civil and Political Rights and Liberties	4

ELECTIVES		UNITS

Choose one course from each of the groups below:

Social/Historical

HIST 265	Understanding Race and Sex Historically	4
HIST 318	Early American Indian History	4
HIST 341	American Social History	4
HIST 347	Urbanization in the American Experience	4
HIST 357	The New South	4
SOCI 142	Diversity and Racial Conflict	4
SOCI 155	Immigrant America	4
SOCI 342	Race Relations	4
SOCI 432	Racial and Ethnic Relations in a Global Society	4

Racial Formation

AMST 301	America, the Frontier, and the New West	4
AMST 320	Social Construction of Race and Citizenship	4
AMST 365	Leadership in the Community – Internship	4
AMST 385	African American Culture and Society	4

*Political science majors are required to take seven courses (28 units).

Political science majors must take four courses (at least three must be upper division) from the Social/Historical and the Racial Formation categories. At least four classes must be unique to the minor and not taken for additional major, minor or general education credit.

Political Organizing in the Digital Age Minor

The digital environment is changing the face of political organization, both in domestic American electoral politics and in the methods used by transnational social movements to call attention to problems around the globe. Howard Dean's use of the Internet to fund his 2004 presidential campaign has made other candidates aware of the political power of the Web in fundraising and grassroots orchestration of local (and "global") events.

This minor should be of interest to students majoring in international relations, political science or other programs who plan to use technology to affect contemporary national and international affairs. As with all minors, students must choose four courses dedicated exclusively to this minor and four courses outside their major departments. These may, but need not be, the same four courses.

This minor is intended to help students engage in domestic and international political organizing by creating Web sites, podcasting and using other new technologies. It should help students secure internships and jobs with political and international organizations, and generally improve their abilities to change the world.

COURSE REQUIREMENTS

Choose one class from each of the following five lists:

I. Domestic Political Organizing

POSC 315	Regulation of Elections and Political Finance	4
POSC 335	Political Parties, Campaigns, and Elections	4
POSC 422	Political Attitudes and Behavior	4
POSC 424	Political Participation and American Diversity	4
POSC 437	Mass Media and Politics	4

II. Transnational Social Movements

IR 305	Managing New Global Challenges	4
IR 306	International Organizations	4
IR 324	Multinational Enterprises and World Politics	4
IR 371	Global Civil Society: Non-Governmental Organizations in World Politics	4

III. New Technologies in Organizing

ITP 304	Technologies for Building Online Political Campaigns	4

IV. The Context of Political Organizing

COMM 321	Communication in the Virtual Group	4
COMM 489	Campaign Communication	4
IR 308	Globalization: Issues and Controversies	4
IR 325	Rich and Poor States in the World Political Economy	4
IR 330	Politics of the World Economy	4
IR 444	Issues and Theories in Global Society	4
POSC 300	Principles, Institutions, and Great Issues of American Democracy	4
POSC 345	International Law	4
POSC 371	The Non-profit Sector and the Public Interest	4
POSC 427	Black Politics in the American Political System	4
POSC 428	Latino Politics	4
POSC 451	Politics of Resources and Development	4
POSC 456	Women in International Development	4
PPD 372	Public Service in an Urban Setting	4

V. Capstone Class

The capstone class allows students to engage more deeply in one of the contributing areas of study.

COMM 487	Communication and Global Organizations	4
IR 405	International Negotiations	4
ITP 413x	Interactive Web Development	4
POSC 395	Directed Governmental and Political Leadership Internship	4

Total: Five courses, 20 units

Interdisciplinary Russian Area Studies Minor

See Department of Slavic Languages and Literatures, page 447.

Interdisciplinary Peace and Conflict Studies Minor

See Peace and Conflict Studies Program, page 405.

Critical Approaches to Leadership Minor

See the Department of Interdisciplinary Studies, page 362.

Political Science Honors Program

The department offers an honors program for outstanding undergraduate students in the junior and senior years. The two semester program emphasizes a specialized topic (a different area each year) in political science. The organization of the course during the first semester follows the seminar model, emphasizing independent research, discussion, and oral and written reports. In the second semester, the student is required to write a thesis under the direction of a faculty member. Students are admitted to the program after careful screening on the basis of their academic record and a personal interview. Classes are limited to about 10 students.

Political Science Honor Societies

There are two honor societies of special interest to political science majors. Pi Sigma Alpha stimulates scholarship and interest in the subject of government by providing tangible recognition to students who have excelled in the field. Political science majors are eligible to join after successful completion of at least three upper division courses in political science. An overall grade point average of 3.5 or higher is required, with a minimum of 3.5 in all political science classes.

The second honor society is Blackstonians. This is a pre-law honor society for undergraduate students designed to recognize academic excellence, assist the student in his or her preparation for law school, and expand the knowledge of the legal profession. Membership is restricted to students who have completed at least 32 units (16 of which must be from USC), but not more than 118 units, and have maintained at least a 3.5 grade point average.

Graduate Degrees

Degree Requirements

These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

All graduate students are required to maintain regular contact with the graduate coordinator to assure compliance with departmental regulations.

Master of Arts in Politics and International Relations

Only students who have a degree objective of obtaining the Ph.D. will be admitted into the Politics and International Relations program. However, interested students can obtain a M.A. degree while pursuing the Ph.D. The degree is awarded upon successful completion of (a) 28 units, including three of the five courses in the program's core theory and methodology sequence, a master's thesis and registration in POSC 594ab or IR 594ab; and (b) the approval of the master's thesis by the thesis committee.

Doctor of Philosophy in Politics and International Relations

Application deadline: December 1

The Ph.D. degree is awarded to students who have demonstrated in-depth knowledge of the complex problems and processes of politics and international relations and the ability to make an original research contribution. The degree requirements are fulfilled by successfully completing a minimum of 60 units beyond the B.A., the Ph.D. screening process, three fields of concentration, a substantive paper or M.A. thesis, a foreign language requirement, qualifying examinations, a dissertation proposal, and a written dissertation and its oral defense. In short,

the prospective candidate for the Ph.D. in Politics and International Relations must demonstrate superior scholarship in course work and the ability to make an original contribution of knowledge in the discipline.

Admission to the Ph.D. Program
The faculty of the Department of Political Science and the School of International Relations welcome talented candidates from a variety of academic backgrounds. While a prior degree in political science or international relations is not necessary, it is strongly recommended that applicants have completed at least some course work in related fields and subjects, including political theory, statistics and social science research methods.

Admission decisions are based on consideration of applicants' prior academic performance, as reflected in course grades, the results of the Graduate Record Examination, and letters of recommendation. Students must also submit a statement of intent that demonstrates a seriousness of purpose, a high level of motivation and a desire to benefit from our faculty's areas of expertise or interest. Applicants also are required to submit a sample of their written work in English, preferably a research-oriented paper. Business, government and other practical experiences may also be taken into account.

Students with many different academic profiles are admitted into the program. However, applicants should understand that the admissions process is highly competitive. Students entering the program typically have a cumulative undergraduate grade point average of approximately 3.5 from an accredited university in the United States or equivalent credentials from a non-U.S. institution, scores of 600 or better on each of the portions of the GREs, a TOEFL score of 600 (for those students for whom English is not their native language) and superior letters of recommendation from those who are in a position to evaluate a student's ability to excel in a Ph.D. program.

Ph.D. Screening Process
At the end of their third semester, students will be reviewed by a screening committee made up of five faculty members appointed by the chair of the Department of Political Science and the director of the School of International Relations. Two faculty members will be drawn from the core research design classes and two from the core theory classes. The fifth committee member will be chosen by the student. This committee will review the student's progress, including grades and written faculty evaluations of course work.

The committee will be responsible for deciding, at an early stage in the student's career, if the student is unlikely to finish the Ph.D. program. After reviewing the student's record, the committee may decide to (1) continue the student, (2) not continue the student and admit the student into a terminal M.A. degree program or (3) fail the student's performance in the screening process, i.e., not continue the student in the M.A. or Ph.D. programs.

Course Requirements
All doctoral candidates must complete a five-course core theory and methodology sequence. They must include a classics-oriented two-semester political, social, comparative and international theory sequence (POSC 530 and IR 500), a multivariate statistics course (IR 514 or POSC 600) and a philosophies/methodologies of social inquiry course (IR 513 or POSC 500). Finally, in their second, third or fourth year, they must take an approved advanced research methods course.

The selection of additional courses should be guided by the distribution requirements of the Ph.D. program. Students will choose three fields of concentration, at least two of which are from those regularly offered in politics and international relations. The student may also seek approval from the director of the Ph.D. program and the steering committee to create a different field of concentration. Each field of concentration requires completion of three graduate level courses, including the core course in standard fields, with an average grade of B or better. Additional courses necessary to complete the 60 units required by the Graduate School should be taken in consultation with faculty advisors and the *Guidelines for Graduate Study in Politics and International Relations*.

Fields of Concentration
The fields of concentration include: American politics; comparative politics/regional studies; culture, gender and global society; foreign policy analysis; international political economy; international politics and security; law and public policy; political theory; and urban and ethnic politics in global society.

Foreign Language
As a prerequisite for taking the qualifying examination, students must demonstrate intermediate proficiency in a foreign language. This requirement can be met through course work, examination or establishing native speaker status. Students should contact the director of the Politics and International Relations program for details.

Substantive Paper or M.A. Thesis
To show evidence of the capacity to conduct original research and before taking the qualifying exam, each student will submit a substantive paper or M.A. thesis. This written work must be approved by two regular faculty members from the Ph.D. program in politics and international relations.

Qualifying Examinations
Students are eligible to take the qualifying exam upon successful completion of the Ph.D. screening process, required field course work with a grade of B or better, a substantive paper or USC M.A. thesis relevant to the program and all other Ph.D. requirements except those directly related to the Ph.D. dissertation. Ordinarily, students will take the qualifying exams no later than the seventh semester in the Ph.D. program. Students will be examined in two of their three fields of concentration. The third field will be completed by taking at least three courses and passing each with a grade of B or better. The guidance committee will evaluate the quality of these two written exams as evidence of the capacity to define and complete a Ph.D. dissertation.

The written examinations are closed book and will be administered over two days at least once per academic year. Examination questions will be written by a committee of the tenure track faculty in each field. The chair of the Department of Political Science and the director of the School of International Relations will appoint one faculty member from each field to coordinate the writing of the relevant field exam. The field exam coordinators will then seek assistance from other faculty in their field, including those with whom the student has studied, to compose the written examination questions.

In accordance with the Graduate School requirements, the oral portion of the student's qualifying examination will be administered by his or her guidance committee. The oral examination will be based on the student's two written field exams. The guidance committee will be made up of five members. Two members, one from each field, will be designated by the director of the Ph.D. program in consultation with the student's principal advisor. In consultation with his or her principal advisor, the student will select the other two field examiners and the outside member of the guidance committee. Final approval of the guidance committee requires the signature of the chair of the Political Science Department and the director of the School of International Relations.

Students will pass the qualifying examinations if no more than one member of the committee dissents after reviewing the student's record at USC and performance on the written and oral parts of the qualifying exams. At the discretion of the examination committee, students who do not pass the exams may be allowed to retake the qualifying exams the next time they are offered. Students are admitted to candidacy for the Ph.D. when they have completed the university residency requirement and passed the written and oral portions of the Ph.D. qualifying examinations.

Dissertation
Upon completion of the qualifying examinations, the student selects in consultation with the dissertation advisor a three-person dissertation committee, including one external member, who will provide guidance and judge the quality of the dissertation. Within six months of completing the qualifying examinations, students should have a formal defense of the dissertation proposal before their dissertation committee. The Ph.D. is earned upon the successful public defense and submission of the written dissertation by the student before the dissertation committee.

Consult the Requirements for Graduation section (page 81) and the Graduate School section (page 91) of this catalogue regarding time limitations for completion of the degree and other Graduate School requirements.

All graduate students considering an academic career should generally have research, teaching and advisement experiences as part of their program of study.

Juris Doctor/Doctor of Philosophy in Politics and International Relations
Application deadline (for Ph.D.): December 1

The Politics and International Relations program and the USC Gould School of Law jointly offer a dual degree program leading to the J.D./Ph.D. degree. Applicants must apply to the politics and international relations program and the law school and meet the requirements for admission to both. In addition to the LSAT, students interested in this program are required to take the Graduate Record Examinations (GRE).

In the first year students take their course work in the law school exclusively. To earn the J.D., all students (including dual degree students) must complete 35 numerically graded law units at USC after the first year. The associate dean may make exceptions to this rule for students enrolled in law honors programs. The second and third years include a total of 40 units of courses in political science and international relations and 40 units of law. Students must complete a five-course core theory and methodology sequence. They must include a classics-oriented, two-semester political, social, comparative and international theory sequence (currently POSC 530 and IR 500), a multivariate statistics course (such as IR 514 or POSC 600) and a philosophies/methodologies in social inquiry course (IR 513 or POSC 500). Finally in their second, third or fourth year, they must take an approved advanced research methods course.

To obtain a Ph.D. in Politics and International Relations, students must pass the screening process. After the completion of required field course work with a grade of B or better, a substantive paper or USC M.A. thesis relevant to the program, students must take a Ph.D. qualifying examination in two of their three fields of concentration. The third field will be completed by taking at least three courses and passing each with a grade of B or better. The final requirement, following successful completion of the qualifying examination, is a doctoral dissertation.

Doctor of Philosophy in Political Economy and Public Policy
The Department of Political Science, the Department of Economics and the School of International Relations jointly offer a program of study leading to the Ph.D. degree and to the M.A. degree in the process of work toward the Ph.D. degree. Applicants must apply to the Graduate School and meet the admission requirements of all three departments.

Required courses include both core requirements and area requirements. Core requirements include courses in economic theory and history of economic theory; history of political thought; scope, methodology and research methods; and political economy and public policy. Area requirements include courses drawn from one of the following three areas of concentration: comparative and developmental political economy; politics, economics and the policy process; and international political economy.

For a detailed description of this program, see the Political Economy and Public Policy section of this catalogue, page 420.

Courses of Instruction

POLITICAL SCIENCE (POSC)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

POSC 100 Theory and Practice of American Democracy (4) Theoretical, institutional, and functional aspects of American national, state, and local government and politics; contemporary issues. Recommended for freshmen and sophomores.

POSC 110 Ideology and Political Conflict (4) Modern political ideologies; their assumptions, perceptions, and prescriptions regarding political stability and social injustice: anarchism, communism, socialism, liberalism, conservatism, and fascism.

POSC 120 Comparative Politics (4) Gateway to the major in political science. Comparative analysis of political institutions and processes in selected industrial, developing and socialist countries, in terms of contrasting ideologies, parties, elites, and economies.

POSC 130g Law, Politics and Public Policy (4) Interaction between law and politics; overview of the American legal system; value conflicts and public policy questions which arise within it. *Concurrent enrollment:* WRIT 140.

POSC 165g Modern Times (4) Explores the current major social and political issues that confront scholars, leaders, and citizens in today's modern world. *Concurrent enrollment:* WRIT 140.

POSC 190ab Politics and Society (4-4) *a:* Honors seminar for freshmen and sophomores. *b:* Continuation of work begun in first semester. Open only to freshman and sophomore Political Science majors only.

POSC 201x Law and Politics: Electing a President (4) (Enroll in LAW 201x)

POSC 210gm Social Issues in Gender (4) (Enroll in SWMS 210*gm*)

POSC 220g Critical Issues in American Politics (4) Examination of enduring political issues, as well as the political processes and institutions. *Concurrent enrollment:* WRIT 140.

POSC 250 Critical Issues in Comparative Politics (4) Critical analysis of major issues in comparative politics such as dependency, crises in political legitimacy, political violence and terrorism, political corruption, genocide, and comparative revolutions.

POSC 255g Cultures, Civilizations and Ethnicities in World Politics (4) Theories and case studies of conflict and coexistence between cultures, civilizations and ethnic groups in the context of the countervailing force of Western socio-economic globalization.

POSC 260 Global Ethnic Politics (4) A comparative analysis of multi-ethnic societies through case studies of inter-ethnic conflict and coexistence, conflict resolution, prevention of genocide and defense of human rights.

POSC 300 Principles, Institutions, and Great Issues of American Democracy (4) Underlying principles of American democracy; major issues of contemporary public policy in national and state institutions.

POSC 311 Political Analysis (4) Methodological and theoretical problems of micro-analytic studies in political science. Techniques of data collection and assimilation.

POSC 315 Regulation of Elections and Political Finance (4) The role money plays in elections and public decisions: disclosure requirements, limits on campaign contributions and expenditures, regulation of radio/television time, tax incentives, public funding.

POSC 320 Urban Politics (4) Evolution of contemporary institutions; differing views of community power; major policies; state and federal relations to local governments; metropolitan community problems.

POSC 321 Urban Political Problems (4) Social problems and governmental policy in the urban environment, emphasizing such problem areas as education, environment, race, police and the system of criminal justice, and poverty.

POSC 322 Social Construction of Race and Citizenship (4, FaSp) (Enroll in AMST 320)

POSC 323 Applied Politics: Civic Engagement and Leadership (4, Sp) Provides students with the knowledge and skills necessary to become active in politics based on understanding the history, theory, and practices of public participation.

POSC 325 State Politics (4) American state politics from a comparative perspective. Examines political processes, differing policy outcomes and the impact of social change on system performance.

POSC 328 Asian American Politics (4, FaSp) Examines political attitudes, behavior and participation of Asian Americans in diverse U.S. society.

POSC 333m Stigma and Society: Physical Disability in America (4) Political activity involving disabled persons; development of public policy regarding disabled citizens. (Duplicates credit in former POSC 233.)

POSC 334 Interest Groups and Elite Behavior (4) Introduction to interest group and elite views of the American system, including recent interest group theory and findings and the general critiques of power distribution in American society.

POSC 335 Political Parties, Campaigns, and Elections (4) Organization and function of political parties, nominations and elections, strategy and tactics of campaigning, professional candidate management finance, political machines, voting behavior.

POSC 340 Constitutional Law (4) Development of constitutional law by the courts; leading cases bearing on major constitutional issues; the federal system; powers of government; civil liberties.

POSC 343 Courts and Society (4) (Enroll in LAW 343)

POSC 345 International Law (4) Nature, origin, and development of international law; basic principles analyzed and illustrated with cases.

POSC 347 Environmental Law (4) Introduces students to central concepts and theories in environmental law and regulation; analyzes present environmental laws and regulations.

POSC 349 Women and the Law (4, Fa) (Enroll in SWMS 349)

POSC 350 Politics of Latin America (4) Theories of development and nation-building; revolutionary and evolutionary modernization; role of history, culture, socioeconomic conditions in affecting political structures and functions.

POSC 351 Middle East Politics (4) Political development in the Middle East, emphasizing historical, cultural, and socioeconomic conditions affecting political structures and functions; modernization and countervailing social, economic, and religious forces.

POSC 352 Politics of Southeast Asia (4) Theories of development and nation-building; revolutionary and evolutionary modernization; role of history, culture, socioeconomic conditions in affecting political structures and functions.

POSC 354 Japanese Politics (4) Contemporary Japanese politics, political economy, and political processes. How political systems are organized; roles of bureaucrats, politicians, interest groups, and social activists in policymaking. *Recommended preparation:* POSC 120.

POSC 355 Politics of East Asia (4) Institutions and processes of advanced societies; political culture, interest articulation and aggregation, the governmental process.

POSC 356 Politics in the People's Republic of China (4) The Chinese revolution; social, political, and economic developments in post-1949 China; China after Mao Zedong (Mao Tse-tung).

POSC 358 Politics of Sub-Sahara Africa (4) Theories of development and nation-building; revolutionary and evolutionary modernization; role of history, culture, socioeconomic conditions in affecting political structures and functions.

POSC 360 Politics of Anglo-American Political Systems (4) Institutions and processes of advanced societies; political culture, interest articulation and aggregation, the governmental process.

POSC 363 Cities and Regions in World Politics (4) Cities and the rise of states; globalization and localization; federalism and decentralization; comparative politics of urban regions in developed and developing countries. *Recommended preparation:* comparative or urban politics.

POSC 365 World Political Leadership (4) Comparative analysis of theories of power and leadership; application to leaders from western democracies, Third World, and socialist countries. Societal consequences of their policies.

POSC 366 Terrorism and Genocide (4) Comparative analysis of the determinants of political violence, terrorism, and genocide and their social and moral consequences; application of theories to contemporary case studies.

POSC 370 European Political Thought I (4) Basic concepts of Western political thought from Plato through the contract theorists.

POSC 371 European Political Thought II (4) Western political thought since the French Revolution. Rise of Marxist socialism, communism, anarchism, fascism, National Socialism, other doctrines; the democratic tradition; new theories of the state.

POSC 374 The American Founders: Visions, Values and Legacy (4) Analysis of the political thought of the American Founders; consideration of alternative visions of patriarchalism, republicanism, and liberal democracy; exploration of Founders' core values and their impact on issues of race, class, and gender.

POSC 375 American Political Thought (4) Historical and topical review of American political philosophy from the Puritans to the present. Special emphasis on such recurrent themes as equality, democracy, and racism.

POSC 377 Asian Political Thought (4) Major systems of political thought in Chinese, Japanese, and other Asian cultural traditions. Confucianism, Buddhism, Islam, and other classical systems and their present-day adaptations under the impact of communism and democracy.

POSC 380 Political Theories and Social Reform (2 or 4) Political theories and philosophies in modern times and their relation to public policy and social reform.

POSC 381 Sex, Power, and Politics (4) An evaluation of the ways in which different ideologies, institutions, and policies contribute to differences in political power between men and women.

POSC 385 Population, Society, and Aging (4) (Enroll in SOCI 385)

POSC 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

POSC 391 Honors I: Undergraduate Seminar (4, Fa) Selected topics in designated area of political science. Discussion of readings and presentation of papers.

POSC 392 Honors II: Undergraduate Thesis (4, Sp) Thesis written under supervision, based on research begun in Honors I.

POSC 395 Directed Governmental and Political Leadership Internship (2-8, max 8) Intensive experience in governmental and political offices. Minimum time requirement; evaluation by office and intern report required. *Prerequisite:* permission of Director of Institute of Politics and Government.

POSC 398 Mock Trial (1, max 4, FaSp) Trial advocacy course instructing on issues of law, evidence, courtroom advocacy, and public speaking. Graded CR/NC. Enrollment limited to Mock Trial team members.

POSC 420 Practicum in the American Political Process (4) Fieldwork in governmental institutions and processes.

POSC 421 Ethnic Politics (4) Analysis of the political behavior and roles of ethnic and racial groups in the American political system; public policy issues and patterns of political action are examined.

POSC 422 Political Attitudes and Behavior (4) The citizen's political world; political socialization, opinion formation and dissemination; development of political cultures and subcultures; political mobilization; personality and politics.

POSC 423 Presidents and the Presidency (4) Presidential coalition; sources of presidential power; recent leadership styles; decision-making within the presidency.

POSC 424m Political Participation and American Diversity (4, Fa) Examines how diverse groups in the U.S. interact with the American political system.

POSC 425 Legislative Process (4) Individual behavior and decision-making within legislatures; changing executive-legislative functions; legislative functions; relationships to political systems in comparative perspective.

POSC 426 The United States Supreme Court (4) Role of the court in American politics; overview of major decisions; the politics of appointment; the process of decision-making; impact of judicial decisions. *Recommended preparation:* POSC 130.

POSC 427 Black Politics in the American Political System (4) The effects of the organization of the American political system and its operations on blacks and other minorities.

POSC 428 Latino Politics (4, Fa) Analysis of the historic and contemporary roles of Latinos in the American political system; patterns of political participation and representation are examined.

POSC 430 Political Economy of Mexico (4) Examination of contemporary Mexico: the role of the state in the Mexican economy; development of the government party and opposition groups.

POSC 431 Political Economy of Central America (4) Focus on economic, social, and political structures and processes in the region and in specific countries, especially Guatemala, El Salvador, and Nicaragua.

POSC 432 The Politics of Local Criminal Justice (4) Roles and behavior of major legal and political participants in the criminal justice system including the police, the legal profession, judges, and the public.

POSC 435 Politics and the Economy (4) Major techniques, politics, and values involved in the allocation of social and economic resources. Includes such topics as determination of priorities in budgetary processes, economic regulation, control of environmental change, and policies for science.

POSC 436 Environmental Politics (4) The political realities of selected environmental issues; resolving and implementing social priorities; interests, attitudes, strategies, and tactics of pressure groups; institutional biases and opportunities.

POSC 437 Mass Media and Politics (4) Analysis of political content of mass media. Audience response to alternative sources of political information. Consideration of the institutional and economic as well as political aspects of the mass media.

POSC 439 Critical Issues in American Politics (4) Intensive examination of critical issues of particular interest in the field of American politics.

POSC 440 Comparative Law and the Judicial Process (4) Analysis of courts in comparative perspective; judicial decision-making and development of public policy through the judicial process; theories of law and jurisprudence. *Recommended preparation:* POSC 340.

POSC 441m Cultural Diversity and the Law (4) Jurisprudential approach to the study of cultural differences. Consideration of circumstances under which law should accommodate cultural diversity in the United States and abroad.

POSC 442m The Politics of Human Differences: Diversity and Discrimination (4) A comparative perspective on social and cultural forces that affect American laws and policies concerning discrimination on the basis of race or ethnicity, gender, sexual orientation, age, and disability.

POSC 443 Law in Film (4) Analysis of the depiction of law in film; use of film to explore topics in jurisprudence and the politics of law and courts. *Recommended preparation:* POSC 130.

POSC 444 Civil and Political Rights and Liberties (4) An examination of debates and controversies surrounding the nature and scope of civil rights and civil liberties. *Recommended preparation:* POSC 340 or POSC 440.

POSC 448ab The Politics of Peace (4-4) Issues of social justice, large-scale social change, high technology, impacts on human survival, and uses of national and international institutions. *a:* Human rights. *b:* Arms limitation, control, and disarmament.

POSC 449 Political Psychology (4) Psychological forces shaping politics and persons, processes and interactions; emphasis on political socialization and cognitive and affective orientations to politics.

POSC 450 Political Development (4) Choice of models in nation-building; party and other means of mass mobilization; elite recruitment and differentiation; peculiarities of cultures and subcultures; integration of ethnic and other minorities; political socialization and secularization; legitimization.

POSC 451 Politics of Resources and Development (4) Comparison of relationships between rich and poor countries involving political and economic resources and prospects for development; impact on industrialized states; interdependence; new international economic order.

POSC 452 Critical Issues in Law and Public Policy (4) Intensive examination of special topics in the field of law and public policy.

POSC 453 Political Change in Asia (4) Modernization and political development in China and Japan; Asia's economic "miracles" (Taiwan, Japan, Korea, etc.); nationalism and communist movements in East and Southeast Asia.

POSC 456 Women in International Development (4) How various developmental theories analyze the role of women as producers and how Third World women are increasing their role in development.

POSC 463 European Politics (4) Institutions, cultures and politics of western Europe, eastern Europe and Russia; internationalization; historical and contemporary political, economic, and social change.

POSC 464 Politics of Russia and Eastern Europe (4) Culture, society, and politics in Russia and in Eastern Europe. Contemporary political institutions and processes.

POSC 469 Critical Issues in Comparative Politics (4) Intensive examination of critical issues of particular interest in the field of comparative politics.

POSC 476 Contemporary Political Thought (4) 20th century political philosophy dealing with major movements in psychological, existential, socialist, and nationalist thought as they bear upon the crisis of political authority in our time.

POSC 479 Critical Issues in Political Thought (4) Intensive examination of critical issues of particular interest in the field of political thought.

POSC 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit.

POSC 499 Special Topics (2-4, max 8)

POSC 500 Methods of Political Science (4) Empirical political research: social science logic; theory construction; measurement; research design; sampling; data generation; secondary analysis; report and proposal writing; research ethics.

POSC 510 American Politics and Policy Processes (4) Survey of literature; examination of approaches, concepts, and issues in the field of American politics and policy processes.

POSC 512 Linkage Politics (4) Empirical and theoretical investigations of the points at which subnational, national, and international politics converge, overlap, or are otherwise interdependent.

POSC 519 Field Research Methods in Comparative Politics and International Studies (4) (Enroll in IR 519)

POSC 520 Comparative Politics (4) Survey of literature; examination of approaches, concepts, and issues in the field of comparative politics.

POSC 525 Cities, Regions and Global Society (4) Comparative and historical examination of cities and regions as political settings, as elements of states and international relations, and as sites of transnational economic and social change.

POSC 530 Political Theory (4) Survey of literature; examination of approaches, concepts, and issues in the field of political theory.

POSC 535 Seminar in North African and Middle Eastern Politics (4) Comparative and area study approaches, nation-building; political cultures; mobilization of human and natural resources; political recruitment, integration, socialization, and conflict.

POSC 539 Political Economy and Public Policy (4) (Enroll in PEPP 539)

POSC 540 Law and Public Policy (4) National and comparative approaches to law and politics in organized societies; law as a policy science; administration of justice; political forces influencing legal change.

POSC 545 Critical Issues in Politics and Policy (4, Fa) Selected topics in politics and policy; focus on current issues shaping the U.S. and the world.

POSC 546 Seminar in Environmental Policy (4) Issues and theories involved in the formulation, implementation, and effectiveness of different environmental policies.

POSC 554 Women in Global Perspective (4) (Enroll in SWMS 554)

POSC 556 Seminar in Disability and Rehabilitation Policy (4) Examination of physical disability as a policy issue from a cross-national and multidisciplinary perspective; attitudes toward disability; income maintenance, health care, and related programs.

POSC 560 Feminist Theory (4) (Enroll in SWMS 560)

POSC 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

POSC 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded IP/CR/NC.

POSC 600 Seminar in Advanced Research Methods (4) Multivariate analysis of data, computer applications, and research report preparation; multiple regression; analysis of variance; factor analysis and related techniques; time series analysis. *Prerequisite:* POSC 500.

POSC 610 Seminar in Political Parties (4) Parties and the political system; formal and informal organization and roles; comparative party systems.

POSC 611 Seminar in the Executive and Legislative Processes (4) Selected research topics; comparative analyses.

POSC 612 Seminar in Urban Politics (4) Problems of government and politics in urban, county, and metropolitan areas. Comparative community politics.

POSC 618 Seminar in Problems of American Politics (4) Theoretical and methodological problems in American politics with emphasis on emerging research paradigms.

POSC 619 Seminar in Supreme Court Politics (4) Role of the Supreme Court in the American political system. Influences on judicial decision making; appointment and decision making processes; scope of judicial power. *Recommended preparation:* POSC 540.

POSC 621 Seminar in Public Law (4) Problems and research in American constitutional and administrative law and in modern jurisprudence.

POSC 622 Seminar in Political Attitudes and Behavior (4) Determinants, nature, and consequences of political attitudes and behavior exploring psychological-sociological models, political socialization and learning, and factors affecting trends in attitudes and behavior.

POSC 623 Seminar in American Constitutional Development (4) Evolution of American constitutional law; the influence of social, economic, and political changes on constitutional interpretation. *Prerequisite:* POSC 510 or POSC 540.

POSC 624 Seminar in American Constitutional Law and Theory (4) Contemporary debates and research on the nature of constitutional interpretation, separation of powers, federalism, civil and political rights and liberties.

POSC 630 Seminar in European Politics (4) Selected research topics in comparative European politics; political culture, socialization, parties, legislative and executive processes.

POSC 632 Seminar in Latin-American Politics (4) Comparative analysis of the political structure and institutions of Latin America; participation and alienation; democracies and dictatorships; political forces.

POSC 633 Seminar in East Asian Politics (4) Comparative analysis of revolutionary and evolutionary modernization; the roots of political thought and behavior; peripheral area relationships; present-day political processes.

POSC 634 Seminar in Southeast Asian Politics (4) Comparative analysis of political forces, ideologies, processes, and institutions.

POSC 636 Seminar in African Politics (4) Comparative analysis of political forces, ideologies, and institutions in African nations south of the Sahara.

POSC 637 Seminar in Chinese Politics (4) Guided research and discussion on the governmental process in the People's Republic of China including leadership, ideology, and popular participation.

POSC 640 Seminar in Problems of Comparative Politics (4) Theoretical and methodological problems in comparative politics; approaches to comparative analysis; problems and trends.

POSC 641 Seminar in Comparative Judicial Policies, Processes, and Behavior (4) Cross-national and intranational comparative analysis of judicial policies and processes; legal and judicial elites.

POSC 648 International Human Rights Law and Policy (4) Historical and contemporary consideration of human rights issues in world politics. Examination of the philosophical foundations of human rights and the institutions that enforce international standards.

POSC 650 Seminar in Western Political Philosophy (4) Research and special problems.

POSC 651 Seminar in Non-Western Political Philosophy (4) Research and special problems.

POSC 652 Seminar in American Political Philosophy (4) Research and special problems.

POSC 660 Seminar in Problems of Contemporary Political Thought (4) Research and special problems.

POSC 670 Seminar in International Law (4) Topics and cases illustrating general principles and problems. Special research.

POSC 695 Social Science Theory (4) Philosophic foundations of social science, empirical theories current in social science; the relationship between empirical theory and social research.

POSC 790 Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

POSC 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

Jesse M. Unruh Institute of Politics

Von KleinSmid Center 263
(213) 740-8964
FAX: (213) 740-3167
Email: unruhins@usc.edu
www.usc.edu/unruh

Interim Director: Janelle Wong, Ph.D.

Associate Director: Jennifer Cichocki, Ph.D.

The Jesse M. Unruh Institute of Politics sponsors events designed to introduce students to the world of practical politics. Each semester, the institute offers intern positions with government, political and advocacy offices in the Los Angeles metropolitan area and beyond. The institute also sponsors a lecture series that brings prominent political and governmental leaders to USC to speak to small groups of students in an informal setting. In the spring, the institute organizes a seminar in Sacramento at which students from colleges and universities throughout California meet with legislators, lobbyists and members of the media to discuss important issues in state politics.

Political Student Assembly

The Unruh Institute of Politics works closely with the Political Student Assembly (PSA). PSA was formed in January 2006 as a division of the Student Affairs Program Board and seeks to actively involve students in campus, state and national political issues. A student-run organization, the PSA strives to raise political awareness and inspire active involvement in contemporary political processes. PSA serves as an umbrella organization for many of the campus student groups that consider themselves politically oriented. Although members may hold strong political views, PSA is a non-partisan organization that is concerned with promoting civic-engagement, rather than a particular political viewpoint.

Directed Government and Political Leadership Internship
Students volunteer to work in one of over 500 political and governmental offices throughout the Los Angeles area, in Sacramento and in Washington, D.C., enabling them to gain firsthand political experience. As interns, students acquire basic political understanding and skills in government, campaign, media, legal or advocacy organizations. Through their assignments, students have the opportunity to develop an understanding of the many ways in which people are important to politics and politics to people.

By gaining hands-on experience in government and politics, student interns develop real-world political and job skills to assist them in their future careers. Many talented interns are fortunate enough to secure full-time employment based upon their internship experience.

Students enroll in POSC 395 Directed Governmental and Political Leadership Internship, for two to eight units. Students can enroll in POSC 395 during the fall, spring or summer. In the summer, students can apply for institute-sponsored fellowships to help defray tuition and living expenses.

Unruh Undergraduate Scholars
Each semester, the institute accepts a select number of undergraduates to work closely with a faculty member in the Political Science Department on a research project. These students, known as Unruh Undergraduate Scholars, must be nominated by a faculty member to participate in this program. The program provides students with knowledge and research skills that will assist them in future careers in politics and government. At the end of the semester, fellows present their research at a special seminar.

Students enroll in POSC 490x Directed Research for four units.

Professional Writing Program

Office of Advanced and Professional Programs
Mark Taper Hall 355
(213) 740-3252
FAX: (213) 740-5002
Email: mpw@usc.edu
www.usc.edu/mpw

Director: Brighde Mullins

Master of Professional Writing
The program is designed for individuals pursuing writing as a career. Fields included are fiction, screenwriting, poetry, stageplay and non-fiction. Program faculty are successful writers whose experience in writing and knowledge of publishing bring professional expertise to the classroom.

The academic curriculum offers seminars and workshops focusing on the development of students' work and on marketing the book, play and filmscript. The degree is specifically intended for writers, preferably those interested in working in more than one genre.

Admission Requirements
Admission to the program is based upon possession of a baccalaureate degree from an accredited college or university, with a minimum 3.0 GPA. When possible, interviews will be conducted with applicants. Adequate scores on the General Test of the Graduate Record Examinations, three letters of recommendation and a work sample of at least 10 pages are required.

Degree Requirements
Thirty units of work are required for the MPW degree. MPW 900 Survey of Professional Writing (3 units) is required and normally will be taken during the first year. In addition, 15 units are required in the student's major field (fiction, poetry, non-fiction, cinema or drama), including one to six units of MPW 994 Professional Writing Project, in which a final project is developed in consultation with the director of the program and an appropriate faculty advisor. The remaining 12 units consist of electives from the writing curriculum. Students are required to submit a proposal describing their individual final projects to the director at least six weeks prior to the beginning of any semester in which they plan to enroll in MPW 994. There are no foreign language or thesis requirements.

Courses of Instruction

PROFESSIONAL WRITING PROGRAM (MPW)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

MPW 460 Playwright's Workshop (4, max 8) Development of full-length plays from staged readings to a finished, producible work. Class involves the writer with directors, technicians, and actors in shaping plays with an eye toward professional production. Lecture and laboratory.

MPW 900 Survey of Professional Writing (3, FaSpSm) Analysis of genres, characteristics of narration, stylistic editing, and the role of the writer in contemporary society. Required of all MPW majors.

MPW 910 The Literary Marketplace (3, FaSp) The writer in the professional world: agents, contracts, copyright, adaptations, manuscript preparation, and editing.

MPW 915 Writing Humor: Literary and Dramatic (3, FaSp) Analysis of the specifics of humor — wit, irony, satire, parody and farce — through examples taken from various genres; discussion/workshop on incorporating humor in students' work.

MPW 920 Principles of Dramatic Structure (3, FaSpSm) Analysis of techniques in preparing scripts for various media; practice in adapting materials from non-dramatic forms.

MPW 925 Advanced Nonfiction Writing (3, max 6) The writing of longer nonfiction works: organization of material, subject choice, and interviewing techniques.

MPW 930 Story Conference (3, FaSp) Development of a synopsis idea for stageplay or screenplay via a professional producer/writer story conference approach. Emphasis on character, scene structure, advancement of storylines. *Prerequisite:* writing sample.

MPW 940 Literature and Approaches to Writing the Novel (3, Sp) Discussion and analysis of literary classics and their influences as applicable to the writing of today's novel; development of book-length fiction. *Prerequisite:* departmental approval; MPW 960*ab* recommended.

MPW 950 Technical Writing (3, FaSp) Preparation of technical material and reports for management; detailed descriptions of processes, equipment, and systems.

MPW 960 Fiction Writing Workshop (3, max 9) Development and analysis of book-length fiction; concentration on narration, characterization, point of view, and clarity of style.

MPW 965 Seminar in Playwriting (4, max 8) An extensive examination of dramatic forms: classroom analysis and production of material culminating in work demonstrating professional promise.

MPW 970 Principles of Poetic Techniques (3, Fa) Beginning analysis of techniques in the writing of poetry as they relate to form and content; concentration on individual student poetry. Contemporary poetry surveyed.

MPW 980 Advanced Poetry Writing (3, max 6) Advanced analysis of modern poetic techniques; concentration on individual student poetry; emphasis on producing publishable literary poetry.

MPW 985 Master Class in Drama (3, max 6) The development of a short stageplay from idea to stage reading.

MPW 990 Directed Research (1-4, FaSpSm) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the program director. Graded CR/NC.

MPW 994 Professional Writing Project (1-6, FaSpSm) Supervised preparation of a full-length manuscript in student's major concentration: fiction, non-fiction, poetry, or drama-cinema-television. Credit upon completion of project. Graded IP/CR/NC. *Prerequisite:* taken last semester of study.

MPW 999 Special Topics (2-4, max 9, FaSpSm) Studies in specific genres, techniques or aspects of the writing craft.

Psychology

Seeley G. Mudd Building 501
(213) 740-2203
FAX: (213) 746-9082
www.usc.edu/dept/LAS/psychology

Chair: Margaret Gatz, Ph.D.*

Faculty

Dana Dornsife Chair in the College of Letters, Arts and Sciences: Hanna Damasio, M.D.

David Dornsife Chair in the College of Letters, Arts and Sciences: Antonio Damasio, M.D., Ph.D.

Harold Dornsife Neurosciences Chair: Irving Biederman, Ph.D.

William M. Keck Chair in Biological Sciences: Richard F. Thompson, Ph.D.

William M. Keck Chair in Cognitive Neuroscience: Zhong-Lin Lu, Ph.D.

Mendel B. Silberberg Professor of Social Psychology: Norman Miller, Ph.D.

Professors: Elaine Andersen, Ph.D.*;* Michael A. Arbib, Ph.D. *(Computer Science, Biological Sciences);* Antoine Bechara, Ph.D.; Irving Biederman, Ph.D.; Sarah W. Bottjer, Ph.D. *(Biological Sciences);* Kathleen C. Chambers, Ph.D.; Antonio Damasio, M.D., Ph.D.; Hanna Damasio, M.D.; Gerald C. Davison, Ph.D.* *(Gerontology);* Michael E. Dawson, Ph.D.; Caleb E. Finch, Ph.D. *(Gerontology);* Margaret Gatz, Ph.D.; Ernest Greene, Ph.D.; Bob G. Knight, Ph.D. *(Gerontology);* David G. Lavond, Ph.D.; Steven Lopez, Ph.D.; Zhong-Lin Lu, Ph.D.; Thomas D. Lyon, J.D., Ph.D. *(Law);* Franklin R. Manis, Ph.D.*; Gayla Margolin, Ph.D.; John J. McArdle, Ph.D.; Sarnoff A. Mednick, Ph.D.; Beth E. Meyerowitz, Ph.D.; Lynn Miller, Ph.D. *(Communication);* Norman Miller, Ph.D.; Shrikanth Narayanan, Ph.D. *(Engineering);* Carol A. Prescott, Ph.D.; Stephen J. Read, Ph.D.; Elyn R. Saks, J.D. *(Law)*; Dan Simon, S.J.D. *(Law)*; Steven Yale Sussman, Ph.D. *(Institute for Prevention Research, Medicine);* Larry Swanson, Ph.D. *(Biological Sciences)*; Richard F. Thompson, Ph.D.; Penelope K. Trickett *(Social Work);* Rand Wilcox, Ph.D.; Elizabeth Zelinski, Ph.D. *(Gerontology)*

Associate Professors: Laura A. Baker, Ph.D.; JoAnn M. Farver, Ph.D.; Stanley J. Huey, Jr., Ph.D.; Richard S. John, Ph.D.; Brian Lickel, Ph.D.; Stephen A. Madigan, Ph.D.; Bartlett Mel, Ph.D. *(Biomedical Engineering);* Toben Mintz, Ph.D.; David Schwartz, Ph.D.; Bosco S. Tjan, Ph.D.; David A. Walsh, Ph.D.

Assistant Professors: John Monterosso, Ph.D.; Biing-Jiun Shen, Ph.D.; Justin Wood, Ph.D.

Lecturers: Ashley Borders, Ph.D.; Ann Renken, Ph.D.

Clinical Professors: A. Steven Frankel, Ph.D.; Ernest R. Katz, Ph.D.; Jonathan S. Kellerman, Ph.D.; Marie Poulsen, Ph.D.

Clinical Associate Professor: Karen Finello, Ph.D.

Clinical Assistant Professors: Robert Gore, Ph.D.; Barry S. Reynolds, Ph.D.

Adjunct Professors: Lynne Bernstein, Ph.D.; Joseph Hellige, Ph.D.; Adrian Raine, D.Phil.

Research Professors: Nancy Pedersen, Ph.D.; Richard Woodcock, Ph.D.

Research Assistant Professors: Paul Robert Appleby, Ph.D.; Monique Fleming, Ph.D.; Karen M. Hennigan, Ph.D.; Kim A. Lindsey, Ph.D.; Susan Luczak, Ph.D.; Linda Silverton, Ph.D.

Emeritus Professors: Norman Cliff, Ph.D.; William W. Grings, Ph.D.; Donald J. Lewis, Ph.D.; Albert R. Marston, Ph.D.

Emeritus Associate Professor: Milton Wolpin, Ph.D.

Academic Program Staff
Clinical Associates: Joel Becker, Ph.D.; Barbara Cadow, Ph.D.; Kenneth Cole, Ph.D.; Berta Davis, Ph.D.; Lisa Davis, Ph.D.; Vivian Fernandez-Credidio, Ph.D.; Beth Leedham, Ph.D.; Karen Meiselman, Ph.D.; Pamella Oliver, Ph.D.; Berta Ortiz, Ph.D.; Cynthia G. Pearson, Ph.D.; Joanne Steuer, Ph.D.; Charles Weinstein, Ph.D.; Marian Williams, Ph.D.

*Recipient of university-wide or college teaching award.

The Department of Psychology offers five topical areas: (1) Cognitive, which analyzes biological and social phenomena or abilities memory, sensation, motivation, motor learning and language comprehension — among humans and related higher animals; (2) Developmental, which studies changes in behavior — cognitive, lingual, social and emotional — from childhood through adolescence and adulthood into old age; (3) Clinical, which concerns itself with the ways people cope, or have difficulty coping, with problems in living; (4) Biological, which examines the biological bases of behavior, including behavioral genetics, behavioral endocrinology, psychopharmacology and sociobiology; and (5) Social, which examines normal human nature and conduct, develops and tests theories concerning the consequences of our social condition and its potential improvement.

In addition, the department offers a joint major in linguistics/psychology and participates in the college's interdisciplinary program in Neural, Informational and Behavioral Sciences.

Research is integral to psychology; it enables the faculty to make contributions in the field and to be more effective teachers. Undergraduate students are encouraged to work with members of the faculty on research projects. The most direct way for students to participate in research is to enroll in a directed research course, but it is also possible to take part in ongoing research in less formal ways.

Undergraduate Degrees

Major Requirements for the Bachelor of Arts in Psychology
Grade Requirement
A grade of C- or higher is required to count a class toward major requirements.

REQUIRED COURSES, LOWER DIVISION		UNITS
MATH 116*	Mathematics for the Social Sciences	4
PSYC 100	Introduction to Psychology	4
PSYC 274	Statistics I	4

*At least one math course of 2.67 units or more is required. MATH 116 or a course of a comparable or higher level is required. Students with a strong math background may profit from a more advanced class.

Twenty-eight upper division psychology units are required, including:

REQUIRED COURSES, UPPER DIVISION		UNITS
PSYC 314L	Research Methods	4

One course from each of four of the following five lists is also required:

COGNITIVE		UNITS
PSYC 301L	Cognitive Processes	4
PSYC 304L	Sensation and Perception	4
PSYC 305	Learning and Memory	4

DEVELOPMENTAL		UNITS
PSYC 336L	Developmental Psychology	4
PSYC 337L	Adult Development and Aging	4
PSYC 437	Adolescent Development	4

CLINICAL		UNITS
PSYC 360	Abnormal Psychology	4
PSYC 361	Introduction to Clinical Psychology	4
PSYC 461	Seminar in Abnormal Psychology	4

BIOLOGICAL		UNITS
PSYC 320	Principles of Psychobiology	4
PSYC 326	Behavioral Neuroscience	4
PSYC 404L	Psychophysiology of Emotion	4
PSYC 420	Animal Behavior	4
PSYC 426	Motivated Behaviors	4

SOCIAL		UNITS
PSYC 355	Social Psychology	4
PSYC 359	Interpersonal Relations	4

Two 400-level psychology courses other than 490x totaling eight units are also required. PSYC 461 may not count toward this requirement if it is being used to satisfy the clinical category above. PSYC 404, PSYC 420 and PSYC 426 may not count toward this requirement if used to satisfy the biological category above.

An additional psychology course, either upper or lower division of at least 2.67 units is required.

Bachelor of Arts, Social Sciences, with an Emphasis in Psychology Requirements
The required courses are: PSYC 100, one math class of 2.67 units or more (MATH 116 is recommended; students with a strong math background may profit from a more advanced course); PSYC 274; and eight upper division courses in departments in the social sciences, including five in the Department of Psychology and three outside the department but within the division. These may be any 300- or 400-numbered courses.

Requirements for the Bachelor of Arts with a Combined Major in Linguistics and Psychology
For the lower division: LING 210, PSYC 100 and PSYC 274 are required. For the upper division the following courses are required: LING 301 and LING 302; PSYC 314L; two courses selected from LING 380, LING 401, LING 402, LING 403, LING 405, LING 407, LING 406/PSYC 406, LING 410, LING 415, LING 466 and LING 485; three additional courses selected from PSYC 301L, PSYC 326, PSYC 336L, PSYC 337L, PSYC 424, PSYC 433, PSYC 406/LING 406. See Department of Linguistics, page 383.

Minor in Psychology
The minor requires six courses: PSYC 100 and five additional courses:

One course is required in each of three of the five topic areas listed under Major Requirements. PSYC 314L may be used to fulfill one of these topic areas.

Two elective PSYC courses. One must be upper division, 300-level or higher.

Limitations:
1. Students must complete at least 16 upper division PSYC units.
2. No more than four units of PSYC 490x is applicable to the minor.
3. Each of the six courses must be at least 2.67 units.

Minor in Psychology and Law
This interdisciplinary minor brings together courses in psychology that focus on the social, clinical, cognitive and societal aspects of psychology and how it relates to law. This knowledge is augmented with courses from the Gould School of Law that identify the relationship between mental health, social psychology and law.

Twenty-four units are required for the minor. A minimum of four courses (16 units) must be unique to the minor. Psychology majors and students majoring in social sciences with an emphasis in psychology may "double count" up to two courses toward the major and minor; however, they must take a minimum of four courses that do not apply to the major.

Required courses
PSYC 100 or LAW 200 (PSYC 100 is a prerequisite to upper division PSYC classes). Psychology majors must take both courses.

Elective Requirements
At least two upper division courses in Psychology taken from the following list: PSYC 301, PSYC 304, PSYC 355, PSYC 360, PSYC 454, PSYC 463, PSYC 465.

At least two upper division Law classes from the following list: LAW 402, LAW 403, LAW 404.

No more than one course from the following list may be used to complete the four unique courses requirement: ANTH 355, ANTH 371, SOCI 350, SOCI 351, SOCI 353.

Minor in Consumer Behavior
This interdisciplinary minor explores consumer thinking from the perspective of psychology, marketing, economics, anthropology, sociology and other departments interested in popular culture. Why do people form the attitudes and impressions they do? How do individual factors, culture, mass media, economics and social trends influence people's decisions? See Interdisciplinary Programs, page 102.

Minor in Critical Approaches to Leadership
See the Department of Interdisciplinary Studies, page 362.

Honors Program
The department offers an honors program for outstanding students in the B.A., Psychology major who desire advanced research training in preparation for graduate work in the social sciences or in professional schools. The primary focus of the honors program is the completion of a research study under the guidance of a faculty advisor. Students are admitted to the program in the fall semester of their junior year. To be eligible for admission, a student must have an overall GPA of at least 3.5 at the time of application to the program. This program is not available to students majoring in Social Sciences with an emphasis in Psychology. Students in the honors program complete all major requirements, including PSYC 380 Junior Honors Seminar during the spring semester of their junior year and PSYC 480 Senior Honors Seminar during the spring semester of their senior year. Students complete an honors thesis proposal as part of the Junior Honors Seminar and must submit a completed senior honors thesis by April 1 of the senior year. Students are also expected to have an overall GPA of at least 3.5 at the time of graduation. For further information, contact the undergraduate advisor.

Progressive Degree Program in Psychology
This progressive degree program permits superior students to complete all requirements for both the B.A. and the M.A. degrees in psychology in five years. Students may apply on completion of 64 units of course work, but not later than the end of their junior year (or the completion of 96 units). To be eligible for admission, students must have at least a 3.5 overall GPA and must have completed PSYC 274 Statistics and PSYC 314 Research Methods with at least a B+ in each. The application for admission to a progressive degree program must be accompanied by an approved course plan proposal and letters of recommendation from two USC faculty members (at least one in the Department of Psychology who agrees to mentor the student). The requirements for both the B.A. and M.A. degrees must be satisfied. Further details about progressive degrees can be found on page 82.

Psi Chi
Psi Chi is the national honor society in psychology. Membership is open to graduate and undergraduate men and women who meet the minimum qualifications. Psi Chi is a member of the Association of the College Honor Societies and is an affiliate of the American Psychological Association and the American Psychological Society.

Graduate Degrees

The Department of Psychology offers an M.A. in Psychological Science as well as a variety of programs leading to the Ph.D. degree. They fall within six major groupings: (1) clinical, including experimental psychopathology, assessment and intervention, and a sub-specialization in clinical-aging and in child-family; (2) developmental; (3) adult development and aging, including a joint track in clinical and aging; (4) cognitive and behavioral neuroscience, including attention, learning, memory, perception, cognitive neuropsychology, and behavioral endocrinology; (5) quantitative, including psychological measurement and mathematical models; and (6) social, including social influences on attitudes, motivation, perception and behavior.

All of the specialty areas provide training for careers in research, teaching and applied work

Admission Requirements.
Psychology courses required for admission are an introductory course, a course in statistics, a course in research methods or experimental psychology and at least one of the following: comparative psychology, physiological psychology, sensation and perception, learning and memory, motivation, and emotion; and at least one of the following: developmental psychology, social psychology, abnormal psychology, personality, and history of psychology. Additional courses are desirable, as is work in the biological, physical and social sciences, in mathematics and in philosophy. Students with outstanding undergraduate records who have less background in psychology are also encouraged to apply.

Students are selected on the basis of undergraduate records, scores on the Graduate Record Examinations General Test, course background, letters of evaluation, personal statement of interests and goals and evidence of research skills or interests (e.g., publications or participation in research projects).

The faculty of each specialty area select the students to be admitted in that area. Because of this procedure, applicants should designate the specialty area to which they seek admission.

Application for admission in psychology requires submission of two sets of material: special departmental forms and university application forms. Both may be secured only by writing to the Department of Psychology. Students are admitted only for study beginning in September; both sets of completed application forms must be submitted by December 1.

Degree Requirements

These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Master of Arts in Psychological Science

The M.A. in Psychological Science is designed for superior students who wish to further their research training and to acquire the methodological background and hands-on research experience to define their scholarly interests and to pursue graduate education, professional degrees or careers requiring advanced skills in research and writing. This is a terminal degree. Students who wish to pursue their doctorate at USC should apply directly to the Ph.D. program initially.

Admission Requirements

A minimum 3.5 cumulative GPA in the bachelor's degree and grades of at least B+ in an undergraduate statistics and an undergraduate methods course are required for admission.

This program requires a minimum of 24 units at the graduate level.

COURSE REQUIREMENTS		UNITS
One statistics or methods course from the following:		
PSYC 501	Statistics in Psychological Research	4
PSYC 503L	Regression and the General Linear Model	4
PSYC 504	Research Design	4
PSYC 616	Research Techniques for Non-Experimental Social Science	4
PSYC 524	Research Design in Developmental Psychology	4

Three courses, spanning at least two of the following five areas:

Cognitive		
PSYC 506	Learning and Cognition	4
PSYC 510	Visual Cognition	4
Developmental		
PSYC 531	Psychology of Adult Differentiation and Aging	4
PSYC 533	Cognitive Development in Children	4
PSYC 534	Social and Emotional Development in Children	4
PSYC 580	Seminar in Aging	4
Biological		
PSYC 516	Survey of Physiological Psychology	4
PSYC 544	Psychophysiology	4
PSYC 545	Neuropsychology	4
PSYC 547	Functional Neuroanatomy	4
PSYC 555	Introduction to Functional Magnetic Resonance Imaging	4
Clinical		
PSYC 514	Psychopathology	4
PSYC 660	Seminar in Clinical Psychology	4, max 8
Social		
PSYC 512	Seminar in Social Psychology	4

The student must take 2 units of PSYC 590 Directed Research each semester.

Thesis Requirement

The student will enroll in PSYC 594a during fall semester and PSYC 594b during spring semester and will complete a final paper (either an empirical paper or an extensive review paper) that is written in publication format. The student will submit the thesis to the faculty mentor and two other psychology faculty members by May 1 and will schedule a one-hour committee meeting to defend the master's thesis prior to graduation.

Master of Arts in Psychology

The department does not admit students whose objective is this master's degree. However, if a student accepted in the program does not have a master's degree, the department strongly recommends completion of the requirements for the M.A. in Psychology in the course of work toward the Ph.D. degree. This involves 24 units of course work and a thesis.

Doctor of Philosophy in Psychology

Course Requirements

Each student must take at least 36 substantive units in psychology at USC during the first three years. Within the first three semesters, each student must complete one statistics course and either a second statistics course or a research design course. Students must also complete a set of core courses that cover topics in brain and cognitive sciences and clinical, developmental and social areas, the specifics of which are provided in the department's handbook for graduate students. Additional course requirements vary according to specialty area.

Research Requirement

During the first and second year, students work on either a master's thesis or a research report of comparable scope and quality. A research project done at USC is required of all students (by the conclusion of the student's second year), regardless of prior graduate work.

Internship Requirement

The equivalent of three years' graduate status is required in all Ph.D. programs by the Graduate School. Students in the clinical (and clinical-aging) program must complete, in addition, at least one full year of internship at a facility approved by the clinical faculty.

Screening Procedure

The student's ability to master graduate-level course material is evaluated after completion of no more than 24 units, and not later than the third semester of graduate work at USC. This evaluation is based on the student's performance in courses taken and on an evaluation of the student's research competence as reflected in the second year research report. The guidance committee is responsible for this evaluation.

Guidance Committee

A five-person guidance committee is appointed after the student passes the 24-unit screening procedure. This committee directs the student's program of studies and evaluates research competence. The committee continues to serve until after the qualifying examination has been passed, the dissertation topic approved, and the student admitted to candidacy for the Ph.D. At that time it becomes known as the dissertation committee and is usually reduced to four members.

Qualifying Examination
The qualifying examination concentrates on the student's ability to demonstrate a grasp of the major area of interest chosen and its relation to other areas of training offered in the department. Partly written and partly oral, the examination is comprehensive and designed to test the student's ability to meet the demands and standards of the profession. Part of the examination is a dissertation proposal. The qualifying examination is planned, administered, and graded by the student's guidance committee.

Doctoral Dissertation
A student is expected to engage in research activity throughout his graduate career, leading up to and culminating in the Ph.D. dissertation. The dissertation is based on an original investigation, usually involving experimental design.

Defense of the Dissertation
The defense may be either a defense oral, based on an approved preliminary copy of the dissertation, or a final oral, subsequent to final typing.

Advisement
The graduate advisor is Dr. Franklin R. Manis. Each student has a major advisor who is usually in the specialty area. It is especially important that the guidance committee be formed as soon as the 24-unit screening is completed.

Doctor of Philosophy in Psychology (Clinical) and Master of Public Health (Health Promotion)
Application deadline (for Ph.D.): December 1

The Ph.D./M.P.H. dual degree combines knowledge of clinical psychology research and practice with an understanding of health from a population perspective. The student enrolls primarily in the clinical psychology doctoral program. During the second and subsequent years, course work is taken in both programs. The dissertation is undertaken through the Department of Psychology.

Courses of Instruction

PSYCHOLOGY (PSYC)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

PSYC 100 Introduction to Psychology (4, FaSpSm) Factors that influence human behavior, including learning, thinking, perception, motivation, and emotion; analysis of determinants of development, adjustment, and maladjustment.

PSYC 165Lg Drugs, Behavior and Society (4, Irregular) An integrative systems perspective of drugs; including their historical, economic, and cultural importance, psychopharmacology, addiction, relationship to crime, and therapeutic use in treating psychological disorders.

PSYC 200Lg Love and Attachment (4) Love and attachment are examined using the integrative methods of psychobiology combining interdisciplinary contributions from evolutionary, developmental, physiological, neurological, cultural, social, and theoretical perspectives.

PSYC 201Lg The Science of Happiness (4) Evaluates scientific research on human happiness. Integrates research from psychology, economics, and neuroscience in the evaluation of personal and public policy choices.

PSYC 210gm Social Issues in Gender (4) (Enroll in SWMS 210*gm*)

PSYC 230Lxg Brain, Mind and Machines: Topics in Neuroscience (4, Sp) (Enroll in BISC 230*Lxg*)

PSYC 274 Statistics I (4, FaSp) Introduction to the use of statistics in psychology: basic ideas in measurement; frequency distributions; descriptive statistics; concepts and procedures in statistical inference. *Recommended preparation:* PSYC 100, MATH 116

PSYC 275Lg Language and Mind (4, FaSp) (Enroll in LING 275*Lg*)

PSYC 300 Human Diversity: The Psychology of Individual Differences (4, Irregular) How and why people differ from one another. Emphasizes the balance between both social and biological forces shaping individuality.

PSYC 301L Cognitive Processes (4, Irregular) Experimental and theoretical aspects of human memory, perception, thinking, and language. Lectures, demonstrations, and individual experiments. *Prerequisite:* PSYC 100.

PSYC 304L Sensation and Perception (4, Irregular) Receptor processes and stimulus organization; traditional topics in the perception of objects, space, time. Laboratory demonstrations and exercises. *Prerequisite:* PSYC 100.

PSYC 305 Learning and Memory (4, Irregular) Principles involved in classical and operant conditioning. Concentration on basic causes of behavior; consideration of the relevance of simple behavioral laws to complicated human behavior. *Prerequisite:* PSYC 100.

PSYC 314L Research Methods (4, FaSp) Experimental and other research methods in psychology; nature and concepts of scientific method. Laboratory exercises. *Prerequisite:* PSYC 100 and PSYC 274.

PSYC 315 Psychological Measurement (4, Irregular) Modern tests of ability, intelligence, and achievement. Measurement of attitudes and personality traits. Principles of construction and validation of tests. *Prerequisite:* PSYC 100 and PSYC 274.

PSYC 320 Principles of Psychobiology (4, Fa) The integrative study of bio-behavioral systems. Evolutionary, developmental, ecological, social, ethological, and physiological factors mediating representative behavioral and psychological phenonmenon are examined in detail. *Prerequisite:* PSYC 100.

PSYC 326 Behavioral Neuroscience (4, FaSp) Neural bases of behavior. Concentration on sensory and motor processes and the interaction of neural, chemical, and hormonal systems. *Prerequisite:* PSYC 100.

PSYC 336L Developmental Psychology (4, FaSp) Child and adolescent behavior and associated theories; exploration of the continuity between child and adult behavior. Laboratory projects. *Prerequisite:* PSYC 100.

PSYC 337L Adult Development and Aging (4, FaSp) Genetic, physical, and social influences during adult years on perception, learning and memory, intelligence, personality, social roles, and normal and deviant behavioral patterns. Laboratory demonstrations and exercises. *Prerequisite:* PSYC 100.

PSYC 340 History of Psychology (4, Irregular) Early Greek and medieval background; later European developments; modern psychological systems; current trends. *Prerequisite:* PSYC 100.

PSYC 355 Social Psychology (4, FaSp) Theoretical and experimental analysis of human behavior. Social processes involved in attitudes, conformity, compliance, interpersonal perception, liking, affiliation, aggression, altruism, and group dynamics. *Prerequisite:* PSYC 100.

PSYC 359 Interpersonal Relations (4, FaSp) Theories and research on person perception, attribution processes, interpersonal attraction and romantic love, freedom and causality, social comparison phenomena. *Prerequisite:* PSYC 100.

PSYC 360 Abnormal Psychology (4, FaSp) The commonly diagnosed behavior pathologies; biological, social, cultural, and developmental antecedents of abnormal behavior; principles of learning, perception, and motivation, as they relate to psychopathology. Not open to students with credit in PSYC 461. *Prerequisite:* PSYC 100.

PSYC 361 Introduction to Clinical Psychology (4, Irregular) Introduction to the scientist-practitioner model of clinical psychology, including research methods, psychological assessment and diagnosis, psychotherapeutic interventions, and treatment of special populations. *Prerequisite:* PSYC 100.

PSYC 372 Human Sexuality (4, Sp) Psychological and physiological base of sexuality; gender identity, childbearing, birth control, venereal diseases; dysfunctions and treatments.

PSYC 380 Junior Honors Seminar (2-4, max 8, FaSp) Advanced study of scientific inquiry in psychology with in-depth analysis of current research by faculty in the Psychology Department. Preparation for senior honors thesis research. *Corequisite:* PSYC 314L.

PSYC 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

PSYC 401 Evolutionary Psychology (4) Evolutionary and genetic basis of human behavior, including intelligence, sexual behavior, criminal behavior, and violence. Etiology of human diversity, including sex, race, and individual differences. *Prerequisite:* PSYC 100; *recommended preparation:* PSYC 274.

PSYC 404L Psychophysiology of Emotion (4, Irregular) Introduction to the scientific study of emotional behavior. Emphasizes research into relations between physiological and psychological variables underlying emotional experience. Demonstrations and laboratory. *Prerequisite:* PSYC 100, PSYC 274, and PSYC 314.

PSYC 405 Child Language Acquisition (4) (Enroll in LING 405)

PSYC 406 Psycholinguistics (4, Irregular) Experimental and theoretical aspects of how spoken and written language is produced and understood, learned during childhood, and affected by brain damage. *Prerequisite:* PSYC 100 or LING 210.

PSYC 407 Atypical Language (4) (Enroll in LING 407)

PSYC 420 Animal Behavior (4, Irregular) Sensory systems, central nervous system design, instinctive behavior, motivation, learning, social behavior, and the evolution of behavioral adaptations. *Prerequisite:* PSYC 100.

PSYC 424 Neuropsychology (4, Irregular) Effects of brain damage on human behavior and abilities, particularly language, memory, and emotion. *Prerequisite:* PSYC 100 and PSYC 326.

PSYC 425 Functional Imaging of the Human Brain (4, Sp) Introduction to the physical and physiological bases of Magnetic Resonance Imaging (MRI), and principles of functional MRI, safety, design and analysis of experiments, and operation. *Prerequisite:* PSYC 100, PSYC 274.

PSYC 426 Motivated Behaviors (4, Irregular) Social, environmental, and physiological influences on behaviors associated with aggression, eating, reproduction, and sleep. Will focus on behavioral disorders such as violence, anorexia/bulimia, sexual abuse, and insomnia. *Prerequisite:* PSYC 100.

PSYC 430 Advanced Child Development (4, Irregular) An analysis of selected topics and issues in child development. *Prerequisite:* PSYC 100; *recommended preparation:* PSYC 274, PSYC 314*L*.

PSYC 433 Children's Learning and Cognitive Development (4, Irregular) Examination of contemporary psychological theory and research on the development of cognitive skills, including language, memory, reading, and mathematics. *Prerequisite:* PSYC 336*L*.

PSYC 437 Adolescent Development (4, FaSp) The adolescent years from both an applied and a research-oriented perspective. Topics include physical, cognitive, and moral development; socialization; and sexual and sex-role development. (Duplicates credit in former PSYC 338.) *Prerequisite:* PSYC 100. .

PSYC 438 Behavioral Genetics (4, Irregular) Inheritance and evolution of behavioral characteristics in man and other species. *Prerequisite:* PSYC 274.

PSYC 451 Formation and Change of Attitudes (4, Irregular) Effects of socialization, personal influence, propaganda and social structure on private attitudes and public opinion. *Prerequisite:* PSYC 100 and PSYC 355.

PSYC 453 Intergroup Relations (4) Examination of the nature of relations between human groups and the psychological mechanisms relating to intergroup conflict, war, genocide, stereotyping, prejudice, and discrimination. *Prerequisite:* PSYC 355.

PSYC 454 Social Cognition (4, Irregular) Theory and research on cognitive processes in social behavior, to include social inference, cognition and emotion, the Self, social categorization, person memory, and attribution processes. *Prerequisite:* PSYC 100; PSYC 355 recommended.

PSYC 457 Applied Social Psychology (4, Irregular) Practical applications of theories and research in social psychology. *Prerequisite:* PSYC 100 or departmental approval; *recommended preparation:* PSYC 355.

PSYC 461 Seminar in Abnormal Psychology (4, Irregular) In-depth study of the several paradigms of psychopathology and therapy with reliance on original sources as well as standard textbook readings. Not open to students with credit in PSYC 360. *Prerequisite:* PSYC 100.

PSYC 462m Minority Mental Health (4, Irregular) The influence of culture, ethnicity, race and gender on human behavior. Mental health issues relevant to ethnic minorities in the U.S.

PSYC 463 Criminal Behavior (4, Irregular) Genetic, biological, psychological, and sociological characteristics of those who evidence criminal behavior; theoretical formulations to be reviewed and appraised. *Prerequisite:* PSYC 100.

PSYC 464 Psychology of Marriage and the Family (4) Theories and research on family relationships across the life span, including research methods, cultural and developmental perspectives, communication, conflict, attachment, individual psychopathology and family violence. *Prerequisite:* PSYC 100.

PSYC 465 Introduction to Forensic Psychology (4) Survey of current topics, technologies and techniques. Students acquire a basic understanding of how forensic psychologists contribute their unique expertise to the American legal system. *Prerequisite:* PSYC 100.

PSYC 469 Schizophrenia Research (4, Sp) Current research on possible causes of schizophrenia. Topics: history, diagnosis, genetics, neural development, obstetrics, psychosocial factors, brain imaging, psychopharmacology, premorbid signs and aging. *Prerequisite:* PSYC 100; *recommended preparation:* read current professional journals related to schizophrenia.

PSYC 480x Senior Honors Seminar (2-4, max 8, FaSp) Advanced study of empirical approaches in psychology. Progress presentations and evaluations of Senior Honors Thesis research. In-depth exploration of issues in science. Not available for graduate credit. *Prerequisite:* senior standing in Psychology Undergraduates Honors Program.

PSYC 490x Directed Research (2-8, max 8, FaSp) Individual research and readings. Not available for graduate credit.

PSYC 499 Special Topics (2-4, max 8, FaSp) Selected topics in the various specialty areas within psychology. Topic will vary from semester to semester. *Prerequisite:* PSYC 100.

PSYC 501 Statistics in Psychological Research (4, Fa) Principles of descriptive and inferential statistics for psychological research; introduction to analysis of variance and regression. Computer methods. *Prerequisite:* PSYC 274.

PSYC 502 Analysis of Variance and Experimental Design (4, Sp) Experimental designs and their analyses of variance beyond straightforward factorial, nested, or repeated measures designs. *Prerequisite:* PSYC 501.

PSYC 503L Regression and the General Linear Model (4, Fa) Multiple regression as a tool in experimental and non-experimental data; analysis of variance and covariance as regression on coded variables. Computer applications Laboratory exercises. *Prerequisite:* PSYC 501.

PSYC 504 Research Design (4, Sp) Intensive review of research methods in the behavioral sciences. Problem analysis, formulation of research propositions, and procedures for research inference.

PSYC 506 Learning and Cognition (4, Irregular) Survey of learning theory and research, including conditioning and information-processing approaches with human and animal subjects.

PSYC 508 Historical Foundations of Psychology (4, Irregular) History of psychology: clinical, cognitive, developmental, experimental, quantitative, and social; epistemology and philosophy of science as applied to psychology.

PSYC 510 Visual Cognition (4, Irregular) The behavioral, neural, and computational aspects of real-time shape recognition will be examined, along with implications for imagery, reading, concepts, and attention.

PSYC 512 Seminar in Social Psychology (4, max 8, Fa) Problems and theories of the person in the social context. Person perception, interpersonal relations, attitude dynamics, social systems.

PSYC 514 Psychopathology (4, Fa) Study of psychopathology: in-depth survey of theory and research concerning psychological disorders; introduction of diagnosis. (One of three clinical psychology core courses: PSYC 514, PSYC 515, PSYC 619.)

PSYC 515 Clinical Assessment (4, Fa) Study of clinical assessment: test construction, measurement and prediction of behavior, major cognitive and personality assessment instruments. (One of three clinical psychology core courses: PSYC 514, PSYC 515, PSYC 619.)

PSYC 520 Test Analysis (4, Irregular) Factor analytic theory. Classical test theory. *Prerequisite:* PSYC 501.

PSYC 524 Research Design in Developmental Psychology (4, Irregular) Review and practice in the analysis and design of experimental and quasiexperimental paradigms for research on ontogenetic age changes and generational differences in behavior.

PSYC 531 Psychology of Adult Differentiation and Aging (4, Irregular) Present findings on changes in organization of behavior after physical maturity; drives, emotions, learning and memory, thinking and problem solving, achievement, psychophysiology. *Prerequisite:* B.A. in psychology.

PSYC 533 Cognitive Development in Children (4, Sp) Review of theories of cognitive development. Analysis of research on brain functioning, perception, memory, language, reasoning and academic skills from birth to adolescence. Open to graduate students in psychology.

PSYC 534 Social and Emotional Development in Children (4, Fa) Theories of social and emotional development, including sociocultural perspectives. Analysis of research on temperament, social relationships, individuation and moral development from birth to adolescence. Open to graduate students in psychology.

PSYC 535ab Proseminar in Life-Span Developmental Psychology (4-4, Irregular) Theory and research in human developmental perception, learning, intelligence, and psychophysiological processes.

PSYC 540 Cognitive Neuroscience (4, Sp) An examination of the major components of cognition (e.g., perception, memory, intelligence) in terms of the neural coding characteristic of the relevant brain areas.

PSYC 544 Psychophysiology (4, max 8, Irregular) Recent research on relations between basic psychological states (e.g., cognition, learning, emotion) and physiological response processes (e.g., autonomic responses, covert muscle activity).

PSYC 545 Neuropsychology (4, Irregular) Brain mechanisms underlying perceptual and cognitive functioning: brain damage, loss of function, and clinical assessment.

PSYC 546 Current Topics in Cognitive Neuroscience (4, max 8) Analysis of selected, recent advances of perception, memory, attention, and conceptualization, as revealed by neuroimaging; behavioral, drug, primate single-unit studies; cognitive deficits and evolutionary perspectives. *Recommended preparation:* some background in behavior science, neuroscience, or computational science.

PSYC 547 Functional Neuroanatomy (4, Irregular) Regional organization and systems of the mammalian nervous system and their functions.

PSYC 548L Functional Neuroanatomy Laboratory (2, Irregular) Laboratory on the regional organization and systems of the mammalian nervous system and their functions. *Prerequisite:* PSYC 547.

PSYC 555 Introduction to Functional Magnetic Resonance Imaging (4, FaSp) The physical and physiological bases of MRI and fMRI. Design and analysis of fMRI experiments. Operation of a magnetic resonance imaging system.

PSYC 574 Topics in Engineering Approaches to Music Cognition (3, max 6) (Enroll in ISE 575)

PSYC 575 Multivariate Analysis of Behavioral Data (4, Irregular) Multivariate statistical techniques; multiple regression, univariate and multivariate analysis of variance, factor analysis, and canonical correlation. Computer methods in data analysis. *Prerequisite:* PSYC 501.

PSYC 576 Psycholinguistics (3, Fa) (Enroll in LING 576)

PSYC 577 Analysis of Covariance Structures (4, Irregular) Multivariate analysis of nonexperimental data, including structural equation modeling, path analysis, and confirmatory factor analysis. Computer applications using variety of optimization routines and purpose-written software. *Prerequisite:* PSYC 503.

PSYC 578 Workshop in Quantitative Methods (4, max 8) Practical, hands-on experience in the application of selected quantitative methods to empirical data. Includes training in use of relevant computer software. *Prerequisite:* PSYC 501 and either PSYC 502 or PSYC 503.

PSYC 580 Seminar in Aging (4-8, Irregular) Review of the literature on selected aspects of aging. Identification of problems, issues of theory and interpretation, and implications for research design.

PSYC 585 Biological Basis of Learning and Behavior (4, Irregular) Survey of data, concepts, and methods of attempts to determine physical substructure of learning and behavior.

PSYC 586 Advanced Psycholinguistics (3, max 9) (Enroll in LING 586)

PSYC 590 Directed Research (1-12, FaSp) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PSYC 594abz Master's Thesis (2-2-0, FaSp) Credit on acceptance of thesis. Graded IP/CR/NC.

PSYC 595 Practicum in Clinical Psychology (1-4, max 12, FaSp) Supervised experience in interviewing skills and assessment, including psychological test administration and the preparation of reports. Graded CR/NC.

PSYC 599 Special Topics (2-4, max 8) Selected topics in the various speciality areas within psychology at the graduate level. Topic will vary from semester to semester.

PSYC 606 Seminar in Learning and Memory (4, max 8, Irregular) Basic problems and experimental data related to understanding the nature of learning processes.

PSYC 607 Seminar in Behavioral Neuroscience (4, max 8, Irregular) Selected topics considered in the contexts of recent experimental developments and current theoretical trends.

PSYC 610 Seminar in Information Processing in the Nervous System (4, max 8, Irregular) Current issues in research on short term retention, recognition, and recall; sensory filtering and attention; information processes in human skill; limits of capacity.

PSYC 612 Seminar in Advanced Social Psychology (4, max 16, Irregular) An intensive consideration of selected concepts, theories, and research problems in social psychology. *Prerequisite:* PSYC 512.

PSYC 616 Research Techniques for Non-Experimental Social Science (4, Irregular) Quasi-experimental designs; causal inference from correlational research, techniques for evaluating measures of attitude, personality, and social motives: observational methods; content analysis; sampling and survey techniques.

PSYC 619 Psychological Intervention (4, Sp) Study of clinical psychological treatment: research and theory about major psychological approaches to intervention. (One of three clinical psychology core courses: PSYC 514, PSYC 515, PSYC 619.)

PSYC 621 Seminar in Quantitative Psychology (4, max 12, Irregular) Selected topics in mathematical psychology.

PSYC 622 Decision Analysis and Behavioral Decision Theory (4, Irregular) Normative and descriptive theories and research on human decision-making, with special emphasis on applications to real social decision problems.

PSYC 660 Seminar in Clinical Psychology (4, max 8, Irregular) Selected topics in clinical psychology.

PSYC 663 Computational and Cognitive Neuroscience (4) (Enroll in CSCI 663)

PSYC 675 Seminar in Experimental Child Psychology (4, max 8) A treatment of current research with children, specializing in problems of learning and motivation.

PSYC 676 Seminar in Psycholinguistics (3, max 12) (Enroll in LING 676)

PSYC 680 Seminar in Psychopathology (4, max 8, Irregular) Selected topics in psychopathology.

PSYC 691ab Internship in Clinical Psychology (0-0, FaSp) Supervised clinical work in an approved mental health setting. Graded CR/NC. *Prerequisite:* good standing in clinical program and departmental approval.

PSYC 695 Advanced Practicum in Clinical Psychology (1-4, max 12, FaSp) Didactic practicum combining theory and research on psychological intervention with clinical practice in assessment and treatment, focused on particular client groups or disorders. Graded CR/NC.

PSYC 790 Research (1-12, FaSp) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

PSYC 794abcdz Doctoral Dissertation (2-2-2-2-0, FaSpSm) Credit on acceptance of dissertation. Graded IP/CR/NC.

Religion

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Director: Donald E. Miller, Ph.D.

Associate Director: Robert Campany, Ph.D.

Faculty
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John R. Tansey Chair in Christian Ethics: Rev. Cecil (Chip) Murray, Rel.D.

Alton M. Brooks Professor of Religion: James Heft, Ph.D.

Leonard K. Firestone Professor of Religion: Donald Miller, Ph.D.

University Professor and Adjunct Professor: Stephen E. Toulmin, Ph.D.

Professors: Lisa Marie Bitel, Ph.D. *(History and Gender Studies);* Robert Campany, Ph.D. *(East Asian Languages and Cultures);* Ronald R. Garet, Ph.D., J.D. *(Law);* Ronald F. Hock, Ph.D.*; Bruce E. Zuckerman, Ph.D.*

Associate Professors: Sheila Briggs, M.A.; Paul Lichterman, Ph.D. *(Sociology)*

Assistant Professors: David Alberston, M.Div.; Jane Iwamura, Ph.D.* *(American Studies and Ethnicity);* Lori Rachelle Meeks, Ph.D. *(East Asian Languages and Cultures);* Anne Porter, Ph.D. *(Art History and Classics);* Megan Reid, Ph.D.; Roberto Lint Sagarena, Ph.D.* *(American Studies and Ethnicity)*

Adjunct Assistant Professor: Katharine Harrington, Ph.D.

Emeritus Professors: Henry B. Clark, Ph.D.; Robert Ellwood, Ph.D.; Gerald A. Larue, Th.D.; John B. Orr, Ph.D.; J. Wesley Robb, Ph.D., L.H.D.*

Emeritus Associate Professors: John P. Crossley, Jr., Th.D.*; William W. May, Ph.D.*; Alvin S. Rudisill, Ph.D.

*Recipient of university-wide or college teaching award.

On the undergraduate level, the School of Religion offers courses in the following areas of religious studies: Bible and ancient near eastern religions; religion in world societies; ethics and theology; and religion and American life.

Courses are designed to facilitate the appreciation and critical evaluation of all religious traditions in the light of past and present scholarship. An opportunity is also provided to undergraduates to focus on the social and ethical contributions and implications of humankind's religious heritages; the school therefore offers courses in business ethics and medical ethics.

Students also have the opportunity to take courses at Hebrew Union College and receive regular USC course credit. Students have the option to take only an occasional course at Hebrew Union College, or they may declare a Judaic Studies emphasis in religion (see the requirements indicated below and the listing under Judaic Studies for more information).

Graduate students specialize in the area of Religion and Social Ethics. Concentration on a single area of religious studies enables the School of Religion to focus its resources, and, at the same time, because of the interdisciplinary nature of the field of religion and social ethics, prepare students in related areas of religious studies.

Degree Programs
The School of Religion offers the Bachelor of Arts in Religion, a B.A. with an emphasis in Judaic Studies, a minor in religion, a minor in ancient religion and classical languages, an M.A. and Ph.D. in Religion and Social Ethics, a joint Ph.D. with Hebrew Union College, and a dual degree with the USC Gould School of Law.

Undergraduate Degrees

Major Requirements for the Bachelor of Arts in Religion
The department major requires REL 301 The Spiritual Quest: Introduction to Religious Studies (preferably taken at the beginning of the student's major courses) and REL 399 Seminar in Religious Studies. In addition, students will select six upper division courses for a total of 24 units from the areas listed below. Students may select up to six upper division courses from a single area. The total unit requirement for the major will be 32 upper-division units.

Area I: Bible and Ancient Near Eastern Religions, CLAS 323; JS 361; REL 311, REL 312, REL 317, REL 325, REL 394, REL 471, REL 473, REL 474, REL 494, REL 495.

Area II: Religion in World Societies, EALC 355, EALC 365; REL 315, REL 330, REL 331, REL 430, REL 480.

Area III: Western Theology and Ethics, JS 321, JS 467; REL 319, REL 335, REL 340, REL 341, REL 360, REL 364, REL 375, REL 440, REL 441, REL 442, REL 455, REL 460, REL 461.

Area IV: Religion and Modern Culture, COMM 425; HIST 482; JS 322, JS 382; REL 333, REL 334, REL 336, REL 366, REL 462, REL 468, REL 469, REL 481, REL 483.

Students who intend to do graduate work in some area of religious studies are encouraged to concentrate their course selections in the area of their preference and to begin learning the languages that are essential for study in that area. This includes modern languages such as French or German and perhaps an ancient language.

Religion Major with Honors
Majors who wish to graduate from the university with honors in religion must achieve a minimum 3.5 grade point average in the major at the time of graduation. In addition to completing the required 32 units listed above, candidates for honors must register for REL 490x Directed Research, in which they must complete an acceptable senior honors thesis in religion.

Honor Society
Theta Alpha Kappa is a national honor society for those involved in the study of religion at the undergraduate and graduate level. It is open to declared majors who have completed at least three semesters of college and at least 12 units of religion courses. Students must have a GPA of at least 3.5 in major courses and an overall GPA of at least 3.0.

Judaic Studies Emphasis Major
A Bachelor of Arts in Religion with an emphasis in Judaic Studies is offered cooperatively with the School of Religion and Hebrew Union College-Jewish Institute of Religion. Students will complete all requirements for the bachelor of arts in religion, including the school's area distribution requirements. In fulfilling these requirements, students who choose the Judaic Studies emphasis will select any three of the following courses: REL 312; JS 321, JS 322, JS 361, JS 382, JS 467.

As a prerequisite for participation in the Judaic Studies emphasis, students must enroll in either JS 100 Jewish History or JS 180 Introduction to Judaism. In addition, students who elect the Judaic Studies emphasis must complete HEBR 120, HEBR 150, and HEBR 220, which may be used to fulfill the college's language requirement.

Bachelor of Arts in Interdisciplinary Archaeology
See Anthropology, page 252, for a complete listing.

Religion Minor
Requirements for the minor are four 4-unit upper division courses selected from the four areas of concentration listed under the requirements for the major and REL 301 The Spiritual Quest: Introduction to Religious Studies. Students can elect to explore religious studies broadly by selecting courses from three or four areas, or focus their studies in one or two areas. Possible focused concentrations include Christian studies, biblical studies, religion in America, ethics and theology. The minor can be constructed by individual students to pursue their own interests in a variety of themes. Students who wish to focus their minor in Jewish studies must minor in Judaic Studies.

Ancient Religion and Classical Languages Minor
This minor is offered collaboratively by the Classics Department and the School of Religion. It is designed for students who want exposure to Greek or Latin and are interested in the broader ancient Mediterranean world. Students are encouraged to investigate ancient studies through archaeology, Greek and Roman culture, politics, religion, mythology, literature, and biblical studies in accord with their individual interests.

Students in good standing may apply for admission to the program. Application forms may be obtained from the School of Religion, Taper Hall of Humanities 328.

The ancient religion and classical languages minor requires three classics courses (including two semesters of Greek or Latin) and three religion area I courses (Bible and Ancient Near Eastern Religions). Four upper division courses (16 units) are required. Normally students will take two upper division courses in classics and two upper division courses in religion area I. An exception to this may occur when a student's two language courses are both taken at the lower division level. In that case, three upper division religion area I courses may count toward the degree.

Total: 6 courses.

Bioethics Minor
Designed to inform students of the ethical and moral dimensions of health care issues. Coordinator: William W. May. See Minor in Bioethics, page 264, for full description.

Interdisciplinary Law and Society Minor
See Department of Political Science, page 423.

Judaic Studies Minor
See Judaic Studies, page 376, for a full description.

Critical Approaches to Leadership Minor
See the Department of Interdisciplinary Studies, page 362.

Graduate Degrees

The School of Religion offers graduate study at the master's and doctoral degree levels in the field of religion and social ethics. Graduate work in religion and social ethics is designed to develop critical reflection upon problems of norms, values, social institutions and specific social issues within the framework of theological, philosophical and social scientific disciplines.

Graduate study in religion and social ethics is divided among three areas of concentration:

Area I. Religious and Philosophical Approaches to Social Ethics Studies the formation and historical development of social ethical traditions as they grow out of religious and philosophical commitments. Attends especially to such issues as the relationship of religious faith to the moral life, the relationship between religious and philosophical ethics, foundational and non-foundational perspectives on social ethics, ethical absolutism and ethical relativism, and religious and philosophical visions of a just society.

Area II. Religion and Culture Focuses on the social and cultural contexts, both ancient and modern, within which religious faith and moral character develop and religious and moral decisions are made. Concerns itself with such issues as the role of institutions in mediating religion, community, human services, and perceptions of the good life and good society; how the religious and moral character of individuals and groups is formed in particular social and cultural contexts; and how and why norms and values change. Makes use of field studies and other empirical research methods.

Area III. Ethical Analysis and Policy Formation Develops the capability to make sound judgments about ethical issues and to relate these judgments to policy formation. Relates theological, philosophical, legal and social scientific theories and methods to the analysis of questions of justice and rights in society. Special emphasis is given to ethical issues in medicine, business and the impact of technology on society and culture. Utilizes the

case study method along with more traditional models of decision-making, goal-setting and the devising of strategies for positive social change.

Degree Requirements
These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School. Decisions regarding the number of transfer credits to be awarded will be made on a case-by-case basis by the faculty of the School of Religion.

Core Course Requirement
General Requirements
Doctoral students are expected to take three core courses, one in each of the three areas of concentration: Area I, 507 Social Ethics; Area II, REL 531 Sociology of Religion; Area III, REL 560 Normative Analysis of Issues. Master's students are expected to take two of the core courses offered during their year of residency. At least one core course is offered each semester. Students are expected to take one core course each semester until the core requirement is met.

Normal Load
A normal, full-time load is two or three courses (eight or 12 units) each semester.

Master of Arts in Religion and Social Ethics
The M.A. degree program consists of 24 units of graduate-level course work and either a comprehensive examination or a thesis. A maximum of one third of the 24 units may be taken at the 400 level. No foreign language is required for the master's degree.

Master's degree students are expected to take two of the core courses offered during their year of residency and four additional elective courses for a total of six courses. The comprehensive examination consists of two half-day, four hour examinations, primarily in the areas of two of the core courses offered in the year of a student's residency, but with some attention to the third area. The master's degree with comprehensive examination option may be completed in two semesters of full-time work (12 units each semester). The thesis option requires research on a specific topic and requires registration in REL 594ab Master's Thesis in addition to the 24 units of required course work.

Doctor of Philosophy in Religion and Social Ethics
Course Requirements
Sixty units of course work are required for the Ph.D. degree, including units of previous graduate work for which credit is allowed. Since students normally complete between 16 and 20 units a year, three years are required to complete the course work for students who have done no previous graduate study. Time of residency is contingent upon the background and preparation of the student.

In addition to the 12-unit core requirement, each student is required to take four elective units in each area of concentration. Students are also expected to take courses in areas which will support their dissertation work. Such courses may be offered in related departments in the university as well as in the School of Religion and should be selected in consultation with an advisor.

A maximum of eight units of 794 Doctoral Dissertation may be applied toward the 60 unit total requirement. A 3.0 GPA must be maintained in course work. Students are screened by a faculty committee after completion of 20 units (16 units for transfer students), and advised as to whether they should continue with the Ph.D. program.

Students with deficient backgrounds in the history of ethics are urged, after consultation with their advisors, to take one of the following three courses: PHIL 442 History of Ethics to 1900, REL 500 History of Theological Ethics or REL 504 Ethics in the History of Western Religious Thought.

Foreign Language Requirement
The School of Religion requires a reading knowledge of one modern foreign language. The student should pass the language examination by the end of the first full year of residency. The language requirement must be met before a student will be permitted to take the qualifying examination.

Qualifying Examination
A student is admitted to candidacy for the Ph.D. degree when the qualifying examination is successfully completed. The qualifying examination consists of five separate examinations: (a) three, three-four hour examinations in each of the three areas of concentration based on a combination of core bibliographies available for each area and student bibliographies. The Area III examination is a case study that deals directly with an issue that requires discussion of rights and justice, utilizes decision-making models and results in policy formation; (b) a three-four hour examination in the area of the student's special interests and/or dissertation area; (c) a two-hour oral examination in which the student is questioned about the written examinations.

Students whose preparation for the dissertation could be facilitated by a case study more extensive than is feasible for a three-four-hour in-house examination may avail themselves of the following option: Instead of taking the Area III examination (case study) and the special interest area examination as two separate examinations, students may collapse the two into a 72-hour, take-home case study in the dissertation area.

Upon successful conclusion of the qualifying examination, the student immediately forms a dissertation committee, and submits to the dissertation committee within one month a 10-12 page dissertation proposal. The dissertation committee discusses the proposal with the student, suggests necessary alterations and additions, and bibliography, and requires the student to submit a final proposal for approval within one month.

Dissertation
The final stage of the program is the submission of an acceptable dissertation based on original investigation. The dissertation must show technical mastery of a special field, evidence of independent research, and the analytical and interpretive ability expected of a scholar.

Joint Doctor of Philosophy Program in Religion and Social Ethics with Hebrew Union College-Jewish Institute of Religion
In conjunction with Hebrew Union College-Jewish Institute of Religion, the Ph.D. Program in Religion and Social Ethics may be taken with a concentration in Judaic Studies. Applicants should apply to USC; applications will be considered jointly with Hebrew Union College. Individual programs may be developed within the parameters for religion and social ethics set forth above.

Dual Degree Program in Law and Religion and Social Ethics
The School of Religion, in conjunction with the USC Gould School of Law, offers a dual degree in law and religion and social ethics. The goal of this program is to provide the highest level of education and academic preparation to students committed to both disciplines. Students completing this program will be fully prepared to function as practicing lawyers, as well as to teach. Requirements for this dual degree are listed in the law school, page 705. To earn the J.D., all students (including dual degree students) must complete 35 numerically graded law units at USC after the first year. The associate dean may make exceptions to this rule for students enrolled in law school honors programs.

Professional Ethics
Students interested in bioethics, business ethics or professional ethics may develop an area of concentration in one of these fields. These fall under Area III.

Courses of Instruction

RELIGION (REL)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

REL 111g The World of the Hebrew Bible (4) The Hebrew Bible in the cultural setting of the Ancient Near East; the formation of theological and ethical concepts which have shaped Western culture.

REL 121g The World of the New Testament (4) Historical investigation of New Testament characters, events, ethics and theology in relation to its social, intellectual, and religious contexts in the Jewish and Greco-Roman world.

REL 131g Religions of Asia (4, FaSp) Traces the development of religious thought in India, China and Japan, from earliest times to the present, paying attention to certain recurrent themes or motifs.

REL 132g Religions of the West (4) Examination of Judaism, Christianity, and Islam in their origins and their development in relation to Western civilization.

REL 133g Religions of Latin America (4, Fa) Examines the diverse and complex religious traditions of Latin America.

REL 134gx Introduction to Buddhist Literature (4) Focus primarily on works of Buddhist literature written in a variety of genres. Introduction of basic teachings that link Buddhist traditions across time and space.

REL 135gx Religions of China (4) Historical and thematic survey of Chinese religious history from earliest times to the present.

REL 140g Religion and Ethical Issues (4) How major Western religious orientations affect deliberation concerning issues such as reproductive technologies and abortion, physician-assisted death, civil disobedience, homosexuality, economic justice, and just war. *Concurrent enrollment:* WRIT 140.

REL 145m Religion in Los Angeles (4, Irregular) Examines the variety of different religious groups and movements in Los Angeles, one of the world's finest laboratories for studying religious innovation, diversity, and pluralism.

REL 150g Religion and Immigration (4, Sp) Study of social and cultural consequences of immigration through the lens of religion. *Concurrent enrollment:* WRIT 140.

REL 212L Archaeology: Interpreting the Past (4) (Enroll in CLAS 212*L*)

REL 301 The Spiritual Quest: Introduction to Religious Studies (4, Fa) Analysis of alternative paths to spirituality, as well as survey of major critics and interpreters of religious commitment. This course should be taken by religion majors at the beginning of their religion major course work. (Duplicates credit in former REL 220.)

REL 311 The Bible in Western Literature (4) Comparative analysis of biblical works and how they were employed by various writers in major works of Western literature.

REL 312 Biblical Wisdom Literature (4) Survey of and inquiry into the biblical wisdom literature; emphasis on the Book of Job.

REL 315 Thought and Life of Islam (4) History, thought, institutions, and religious practices of Islam.

REL 317 Ancient Near Eastern Myth and Literature (4) A close consideration of ancient Near Eastern myths — especially those from Mesopotamia and Canaan — with special attention to their influence on the Bible.

REL 319 Religious and Ethical Issues in Death and Dying (4) Analysis of religious and ethical approaches to death and dying, including refusal of treatment for competent and incompetent patients, voluntary and involuntary euthanasia, and resuscitation.

REL 323 Aegean Archaeology (4) (Enroll in CLAS 323)

REL 325 Religious Experience in the Greco-Roman World (4) Varieties of religious experience as reflected in the literature, art, and cultic practices of the Hellenistic world.

REL 330 Religions of India (4) History, teaching, and practice of Hinduism, Buddhism, and other religious traditions of India and Southeast Asia.

REL 331 Religions of East Asia (4) History, teaching, and practice of the religions of China, Tibet, and Japan.

REL 333 Religion in the Borderlands (4) Survey of religious history of U.S./Mexico borderlands. Emphasis is given to definitions of place and transformations in culture and forms of belief.

REL 334 Religion and Colonial Encounter (4) Survey of religious responses to colonial encounter in the Americas. Emphasis given to study of religious innovations of Amerindians, Africans, and Europeans.

REL 335 Women, Religion, and Sexuality (4) Examination of western religious traditional thought on women and sexuality; its continued impact on contemporary intellectual, cultural, and social life.

REL 336m Re-viewing Religion in Asian America (4) Interdisciplinary analysis of the religions traditions, institutions, and experiences of Asians and Pacific Islanders in the U.S.

REL 340 Western Religious Thought (4) Major contemporary options in Western religious thought, with attention to origins in both super-naturalism and naturalism.

REL 341 Ethics in a Technological Society (4) Value questions arising from the impact of technology on individuals, social institutions, and culture.

REL 355 Studies in Chinese Thought (4) (Enroll in EALC 355)

REL 360 Ethical Issues in the New Medical Revolution (4) Multimedia-oriented analysis of issues; definition of life and death; research on human subjects, health care delivery, euthanasia, abortion, genetic counseling, behavior control.

REL 364 Judeo-Christian Ethics (4) Jewish and Christian ethics in their origins, developments and contemporary suitability to illuminate issues of justice, war and peace, ecology and sex and the family. (Duplicates credit in former REL 264.)

REL 365 Studies in Japanese Thought (4) (Enroll in EALC 365)

REL 366 Religion and Social Change (4) Empirical and theoretical analysis of social change and its effect on religious institutions as well as the impact of religious movements on society.

REL 375 Conflict and Change and the Ethics of Business (4) Impact of recent events and developments on the ethics of business, such as civil rights, affirmative action, professionalism, consumerism, ecology, changing life styles, and government regulation.

REL 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

REL 394 Near Eastern and Mediterranean Archaeology (4) Study of archaeology and excavated artifacts from the ancient Near East with reference to Biblical studies.

REL 399 Seminar in Religious Studies (4) Survey of methods and selected issues in the field of religious studies; required of all majors during their junior or senior year. *Recommended preparation:* REL 301.

REL 414 History of Islamic Law (4, Sp) Examines legal methods and religious sources used in Islamic law. Emphasis is placed on the way cultural developments affect legal thought and the administration of justice.

REL 425 Communicating Religion (4) (Enroll in COMM 425)

REL 430 New Religious Movements (4) Cross-cultural examination of "New Religions" and new religious movements: their origins, characteristics, and development. Field research will be emphasized.

REL 431 The Taoist Tradition (4) (Enroll in EALC 431)

REL 440 Patterns of Contemporary Religious Thought (4) Examination of the principal figures, schools of thought, and current trends in late 20th and 21st century theology.

REL 441 Origins of Modern Theology (4) 19th century liberal, rationalist, and historical theology.

REL 442 Religion and Science (4) Explores whether religion and science offer competing or complementary models for understanding the world and the human place within it.

REL 443 Evolution, Free Will, and the Problem of the Soul (4, Irregular) Explores the challenge to traditional belief in the "mind" or "soul" posed by theories that portray the mind-brain as a deterministic mechanism produced by evolution.

REL 455 Philosophy of Religion: Bases of Belief and Disbelief (4) Rational and empirical foundations for religious faith and for skepticism.

REL 460 Senior Seminar: Medical Ethics (4, Fa) Analysis of ethical problems related to new developments in medical science. Graded CR/NC.

REL 461 Business and Society (4) Theories of corporate social responsibility from contrasting points of view and the relation of social responsibility to theories of management ethics, utilizing case studies.

REL 462 Religion and Violence (4) Religious and moral perspectives on war, pacifism, violent and non-violent protest, and religion-based terrorism and militia.

REL 465 Contemporary Religious Ethics (4) New directions in Judeo-Christian thought about the relation of religious belief to problems of individual behavior and social order.

REL 468 Sociology of Religion (4) The role of religion in modern society from the standpoint of sociological theory and research.

REL 469 Black Religion in America (4) Historical, sociological, and theological analysis of the nature and role of black religion in the American setting.

REL 471 Jesus (4) A study of major interpretations of the figure of Jesus, with focus on the interaction between religious traditions and culture.

REL 473 Advanced Old Testament Studies (4) Consideration of specific topics in Old Testament studies; particular topics determined each semester.

REL 474 Advanced New Testament Studies (4) Consideration of specific topics in New Testament studies. Particular topics determined each semester.

REL 480 History of Christianity (4) Intellectual, institutional, and social history of the Christian movement from its beginnings to modern times.

REL 481 History of Religion in America (4) Intellectual, institutional, and social history of religion in America from colonial times to the present.

REL 482 Jesus in American History and Culture (4) (Enroll in HIST 482)

REL 483 Religion and Popular Culture in the United States (4, Sp) Critical analysis of the relationship between religion, mass media, and popular cultural forms in the U.S. *Recommended preparation:* REL 301.

REL 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit. *Prerequisite:* departmental approval.

REL 493 The Art and Archaeology of Religion: Beginnings (4) Examination of history of religion through its material expression: art, architecture and artifact. Exploration of different themes and time periods.

REL 494 Advanced Near Eastern and Mediterranean Archaeology (4, max 8, Irregular) Laboratory work in special Near Eastern archaeological problems; emphasis on ceramic analysis, conservation techniques, dating processes, and excavation report evaluation.

REL 495 Field Methods in Archaeology (2-6) Archaeological field study emphasizing current paradigms of data collection and evaluation; social scientific study of material culture and its relationship to religious expression.

REL 499 Special Topics in Religion (2-4, max 8) Selected topics in religious studies.

REL 500 History of Theological Ethics (4) The ethical thought of major theological thinkers in the patristic, medieval, Reformation, and modern periods.

REL 501 Theories and Methods in Religious Ethics (4) Classical and contemporary writers on the interpretation of religious ethics. Perspectives from the history, phenomenology and the social scientific study of religious ethics.

REL 503 Theories of Rights and Justice (4) Naturalist, utilitarian, contractarian, and Marxian conceptions of rights and distributive justice; their history and contribution to contemporary social ethics.

REL 504 Ethics in the History of Western Religious Thought (4) Ethics in the thought of key religious thinkers in Judaism, Christianity, and Islam from the first to the 19th centuries.

REL 505 Contemporary Theological Ethics (4) The current state of Reformation and Catholic ethics in comparison with current theological ethics influenced by the Enlightenment.

REL 506 Tradition and Community in Western Religious Thought (4) Analysis of how religious identity has been formed in Western history through the definition of tradition and community.

REL 507 Social Ethics (4) Major traditions of religious social ethics in the U.S. in their development from European antecedents to their current states. *Prerequisite:* graduate standing.

REL 508 Ethics of Liberation Theology (4) Analysis of a major movement in contemporary theological ethics in its societal context and relationship to the institutional church and traditional Christian ethics.

REL 509 Early and Medieval Religious Thought in the West (4) Religious thought in the West from pre-Augustine to post-Thomas Aquinas. Emphasis on primary texts: Augustine, Boethius, Anselm, Averroes, Maimonides, and Thomas.

REL 510 Biblical Ethics — Old Testament (4) Old Testament ethics, with emphasis on the historical, institutional, and literary context.

REL 512 Biblical Ethics — New Testament (4) New Testament ethics, with emphasis on the historical, institutional, and literary context.

REL 515 Comparative Religious Ethics (4) A comparative study of ethical thought and practice in cultures and of persons shaped by the major world religions.

REL 516 Modern Continental Religious Thought (4) The effects of the Enlightenment on Jewish, Catholic, and Reformation thought of the 19th century, and of the latter on 20th century religious thought.

REL 520 The Christian Pragmatism of Reinhold Niebuhr (4) Examination of Niebuhr's life and writings, critical analysis of significance regarding social gospel, Neo-orthodoxy, Marxism, New Deal, World War II, and the Cold War.

REL 530 Social Theory in Religious Social Ethics (4) Relationship of sociological theory and methodology to the normative analysis of social institutions, social policy, and cultural values.

REL 531 Sociology of Religion (4) Examination of major classical and contemporary theorists, the impact of social change on religious institutions, and the social role and function of religion.

REL 532 Moral Issues in Urban Religion (4) The history, theologies, and practices of urban religious institutions: an examination of moral issues in the changing interaction between religion and urban culture.

REL 535 The Hermeneutics of Moral Expression (4) Comparison of the conceptions of moral meaning and methods for interpreting moral expressions (such as scriptures, myths, laws, and dreams) in structuralism, symbolism, and hermeneutics.

REL 542 Seminar in the Philosophical Study of Religion (4) (Enroll in PHIL 542)

REL 543 Radicalism and Reform in Religious Social Ethics (4) Critical and historical analysis of radical and reformist themes in 20th century religious social criticism, particularly in the American situation.

REL 544 Law, Politics, and the Religious Conscience (4) 19th century backgrounds. Church-state issues; religious communities as political agents; religious rhetoric and public political rhetoric.

REL 545 Moral Assessment of Changing American Character (4) Examination of analyses of American character; specific attention to changing cultural values and alternative normative critiques.

REL 560 Normative Analysis of Issues (4) Methods of case study analysis which identify and draw upon ethical theory and result in public policy recommendation.

REL 565 Seminar in Bioethics (4) Ethical issues in death and dying, human experimentation, genetic engineering, behavior modification, health care delivery, abortion, and others.

REL 567 Seminar in Business Ethics (4) Critical evaluation of ethical issues in the relation between business and society; focus on value conflicts in resolution of issues.

REL 568 The Rights of Groups (4) Legal and moral rights of religious, racial, ethnic, and communal groups; sources and criticisms of group claims in sociology, ethics, and jurisprudence.

REL 570 Ethical Assessment of Technology (4) Analysis of psychological, social, and cultural impact of technology; formulation of normative social policy regarding military, computer, communications, energy, pollution, and behavior control technologies.

REL 572 Freedom, Justice and Order in Social Policy (4) Significance of, and conflicts between central social values; their applications to specific contemporary social policy questions.

REL 575 The Ethics of Women's Liberation (4) The methodologies of feminist ethics, their emergence out of the academic disciplines and women's movement, and their applications to social policy issues.

REL 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

REL 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded IP/CR/NC.

REL 599 Special Topics (2-4, max 8)

REL 600 Advanced Seminar in Religious and Philosophical Approaches to Social Ethics (4, max 8) Ontological and positivistic bases of social ethics.

REL 602 The Evolution of Roman Catholic Thought (4) The modern Roman Catholic description of the development of doctrine in the light of its ancient, medieval and modern sources.

REL 626 Seminar in Jewish Ethics (4) (Enroll in Judaic Studies 626)

REL 630 Advanced Seminar in Religion and Culture (4, max 8) Moral expression as critical of and shaped by institutions and cultures.

REL 660 Advanced Seminar in Ethical Analysis and Policy Formation (4, max 8) Ethical reflection on the making of private and public policies from a moral perspective.

REL 790 Directed Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

REL 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

Slavic Languages and Literatures

Taper Hall of Humanities 255
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Chair: Thomas Seifrid, Ph.D.*

Faculty
Professors: John Bowlt, Ph.D.*; Sharon Carnicke, Ph.D. *(Theatre);* Sarah Pratt, Ph.D.*; Thomas Seifrid, Ph.D.*; Alexander Zholkovsky, Ph.D.*

Associate Professors: Marcus Levitt, Ph.D.; Roumyana Pancheva, Ph.D. *(Linguistics)*

Assistant Professor: Boris Wolfson, Ph.D.*

Adjunct Instructor: Daniel L. Bayer, M.A.

Language Director: Tatiana Akishina, Ph.D.

Lecturer: John Adam Peters III

Emeritus Professor: Anthony M. Mlikotin, Ph.D.

*Recipient of university-wide or college teaching award.

Undergraduate Programs
The Department of Slavic Languages and Literatures offers a major in Russian at the undergraduate level and minors in Russian and Russian Area Studies. The major combines thorough preparation in the Russian language with the study of Russian literature, art and culture. Particular emphasis is placed on developments in contemporary Russia. Students are required to study four semesters of Russian language as a prerequisite to the major. The major itself requires an additional three semesters of language study, three semesters of an advanced seminar on Russian culture (with varying content), and two elective courses, either in Russian literature and culture (in translation or Russian, depending on course scheduling) or in Russian area studies.

Graduate Programs
The Department of Slavic Languages and Literatures offers, under the jurisdiction of the Graduate School, the Master of Arts and the Doctor of Philosophy in Slavic Languages and Literatures and in Linguistics.

Undergraduate Degrees

Department Major Requirements for the Bachelor of Arts in Russian

REQUIRED COURSES, LOWER DIVISION		UNITS
SLL 120	Beginning Russian I	4
SLL 150	Beginning Russian II	4
SLL 220	Intermediate Russian I	4
SLL 250	Intermediate Russian II	4

REQUIRED COURSES, UPPER DIVISION		UNITS
SLL 310	Advanced Russian in Popular Culture	4
SLL 321	Russian Culture, or	
SLL 330	Russian Thought and Civilization	4
SLL 340	Intercultural Communication in Russian	4
SLL 465	Seminar in Russian Studies (taken three times, with varying content)	4, max 12

And two elective courses approved by the undergraduate advisor.

Minor in Russian
Lower division requirements for the major plus three upper division elective courses chosen from the following (at least two of the areas must be represented): Russian language (SLL 310, SLL 340, SLL 420); Russian literature and culture taught in Russian (SLL 321, SLL 465); Russian literature, art and culture taught in translation (SLL 330, SLL 344, SLL 345, SLL 348, SLL 378).

Minor in Russian Area Studies
Lower Division Requirements
Four semesters of Russian language (SLL 120, SLL 150, SLL 220 and SLL 250), or its equivalent.

Upper Division Requirements
The core course, SLL 330 Russian Thought and Civilization; one course outside the Slavic department, from among the following: HIST 324, HIST 328, HIST 415, HIST 416, HIST 417, HIST 424; IR 345, IR 346, IR 439, IR 483; POSC 464; and one elective, to be chosen from among: any upper division SLL course in Russian literature, art or culture; HIST 320, HIST 324, HIST 415, HIST 416, HIST 417, HIST 424; IR 345, IR 346, IR 439, IR 483; POSC 464.

Note: the course taken to fulfill the requirement outside the Slavic department cannot also count as an elective.

Graduate Degrees

Admission Requirements
An undergraduate major in Slavic languages and literatures or equivalent is a prerequisite for graduate work. Undergraduate major requirements must include four language and four literature courses at the upper division level.

Degree Requirements
These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Transfer credit to be applied toward the master's degree must have been earned no earlier than seven years prior to the date of application (or 10 years for a Ph.D.).

Master of Arts in Slavic Languages and Literatures
The department does not accept applicants for a Master of Arts degree in Slavic languages and literatures. The M.A. degree is intended only as a transitional degree in the process of completing requirements for the Ph.D. in Slavic languages and literatures.

A student must complete 30 units in Russian, three units of which may be taken in a related department. Students who lack undergraduate preparation in any given area may be required to take appropriate courses at the 400 level before enrolling in 500-level courses. Command of spoken and written Russian must be demonstrated; a proficiency examination must be taken at the beginning of the first semester of study and again before the completion of the degree to demonstrate sufficient progress. Written and oral examinations or a thesis are required on completion of course work. The thesis is an honors option. The departmental Graduate Committee will consider thesis requests on the basis of a student's performance in graduate courses, units completed, and individual background in Russian literature. The thesis may be taken in lieu of four units of course work.

REQUIRED COURSES		UNITS
SLL 500	Topics in Advanced Russian (2 units each semester to total 8 units)	8
SLL 501	Proseminar in Russian Literature	3
SLL 516	Structure of Modern Russian: Morphology	3
SLL 530	Early Russian Literature and Culture (11th-17th Centuries), or	
SLL 532	18th Century Russian Literature	3

Two courses in 19th century Russian literature, and two courses in 20th century Russian literature (one course in Russian art or culture may be substituted for one course in either 19th or 20th century literature).

One elective may be selected from relevant courses in any department with approval of the graduate advisor.

Doctor of Philosophy in Slavic Languages and Literatures
Application deadline: December 1

The course of study leading to the Ph.D. in Slavic Languages and Literatures requires 30 units of course work beyond the M.A. Requirements include: demonstrated proficiency in spoken and written Russian; reading knowledge of French and German (in exceptional cases a second Slavic language may substitute for either French or German. Instruction in Slavic languages other than Russian is not scheduled on a regular basis); comprehensive examinations in primary and secondary fields of concentration; dissertation. Required courses are: SLL 510 or SLL 512, SLL 548, SLL 584, SLL 585; and two courses selected from SLL 650, SLL 660, and SLL 665.

Doctor of Philosophy in Linguistics
Specialization in Slavic
Application deadline: January 1

See Linguistics (page 385) in this catalogue.

Certificate in Foreign Language Teaching
The Certificate in Foreign Language Teaching provides certification in the theory and practice of second or foreign language teaching for student language teachers concurrently enrolled in graduate degree programs in foreign languages or related graduate programs at USC; for graduates of such programs who are teaching languages; for external candidates concurrently enrolled in similar programs at accredited colleges or universities; or for graduates of such programs who are teaching languages. The certificate is meant to supplement graduate study in the literature or linguistics of foreign languages. It is also meant to supplement classroom teaching. Refer to the Department of Spanish and Portuguese (page 459) for course work requirements.

Courses of Instruction

SLAVIC LANGUAGES AND LITERATURES (SLL)

For the courses offered during any given term, consult the *Schedule of Classes*.

SLL 020 Course in Reading Russian (2) For graduate students wishing to use Russian as a scholarly tool. Emphasis on basic grammar and reading skills. Graded CR/NC.

SLL 025 Course in Reading Russian (2) Continuation of SLL 020. Reading of authentic materials from Russian press and students' areas of interest. For graduate students only. Graded CR/NC. *Prerequisite:* SLL 020.

SLL 120 Beginning Russian I (4) Introduction to the Russian language with emphasis on basic conversational skills, major points of grammar, and reading.

SLL 121 Introductory Serbo-Croatian I (4) Basic grammar; oral drills and written exercises; analysis of structural differences between the Croatian and Serbian usages.

SLL 122 Elementary Polish I (4) Structure of the language, pronunciation, basic communication, and reading in modern Polish.

SLL 130ab Elementary Czech (4-4) *a:* Structure of the language, basic grammar, pronunciation, and oral communication. Readings in Czech; discussion of Czech history and culture. *b:* Continuation of SLL 130*a*. *Prerequisite:* SLL 130*a*.

SLL 150 Beginning Russian II (4) Continuation of SLL 120. *Prerequisite:* SLL 120.

SLL 151 Introductory Serbo-Croatian II (4) Continuation of SLL 121. *Prerequisite:* SLL 121.

SLL 152 Elementary Polish II (4) Continuation of SLL 122. *Prerequisite:* SLL 122.

SLL 199 Chess and Critical Thinking (2) Analysis of significant chess games, reflecting societal attitudes toward science, competition, art, gender, psychology, politics, and technology. Graded CR/NC.

SLL 200 Russian Moral Dilemmas in the 20th Century (4) Examines the primary moral experiences of Russian society in its transition from tsarism through communism and beyond.

SLL 201 Contemporary Russian Culture and Society (4) (SS only) Introduction to the culture, politics, and economics of contemporary Russia. Offered only as part of the International Summer Session in Russia. *Prerequisite:* SLL 120.

SLL 210 Masterpieces of the Russian Short Story (4) Critical reading of selected masterpieces of the Russian short story; works by Gogol, Turgenev, Dostoevsky, Tolstoy, Babel, Pasternak, Solzhenitsyn, and others. In English.

SLL 220 Intermediate Russian I (4) Development of thematic conversational skills with emphasis on extended dialogue. Review of basic morphology with special attention to verbs of motion. Reading of authentic material is emphasized. *Prerequisite:* SLL 120, SLL 150.

SLL 221 Intermediate Serbo-Croatian (4) Practice in conversation and composition. Readings in the Croatian and Serbian literatures, and the Yugoslav national epic. *Prerequisite:* SLL 151.

SLL 222 Readings in Polish Literature I (4) Continuation of elementary Polish and introduction to outstanding works in Polish literature. *Prerequisite:* SLL 122 and SLL 152.

SLL 250 Intermediate Russian II (4) Continuation of SLL 220. Development of proficiency in conversation skills, reading, and writing. *Prerequisite:* SLL 220.

SLL 252 Readings in Polish Literature II (4) Continuation of SLL 222. *Prerequisite:* SLL 222.

SLL 270ab Russian for Native Speakers (4-4) *a:* For native Russian speakers who cannot read or write Russian. Emphasis on essentials of grammar, vocabulary, and orthography, and the reading and writing of simple texts in Russian. *b:* Continuation of SLL 270*a*.

SLL 300 The Russian Novel (4) The rise of the novel as the dominant form in Russian literature of the 19th century. Major works by Gogol, Turgenev, Dostoevsky, Tolstoy, and others. In English.

SLL 301 Russian Literary Avant-Garde (4) Russian modernism and the avant-garde: development of modern sensibility in literature and the arts from 1880 to 1930. Readings in Chekhov, Sologub, Bely, Mayakovsky, and others. Conducted in English.

SLL 302 Modern Russian Literature (4) Survey of the major developments in Russian literature during the 20th century, from modernism to the post-Soviet era. Readings in English.

SLL 303 Contemporary Russian Literature (4) Developments in Russian Literature from the 1960s to the present. Literature of moral resistance directed against official cultural models. In English.

SLL 310 Advanced Russian in Popular Culture (4, Fa) Advanced conversation topics, readings and analysis of Russian press, films and other popular materials. Advanced grammar. Conducted in Russian. *Prerequisite:* SLL 250; *recommended preparation:* SLL 120, SLL 150, SL 220.

SLL 321 Russian Culture (4) Survey of Russian civilization from the beginnings to the Soviet period focusing on major cultural and artistic trends. Lectures and readings in Russian. *Prerequisite:* four semesters of Russian.

SLL 330g Russian Thought and Civilization (4) Russian cultural identity from its beginnings until today. The Eastern Orthodox tradition, its traumatic confrontation with Western culture, and their continuous interaction. *Concurrent enrollment:* MDA 140.

SLL 340 Intercultural Communication in Russian (4, Sp) Advanced language training focusing on specific issues of communication with Russians. Analysis and translation of literary texts. Advanced syntax. Conducted in Russian. *Prerequisite:* SLL 250; *recommended preparation:* SLL 120, SLL 150, SLL 220.

SLL 344 Tolstoy: Writer and Moralist (4) Tolstoy's major works in the context of his ethical views. Readings and lectures in English.

SLL 345 Literature and Philosophy: Dostoevsky (4) Dostoevsky's novels as psychological and philosophical analyses of modern alienated man. Readings in Dostoevsky and selections from Gide, Kafka, Camus, and Sartre. Conducted in English.

SLL 346 Russian Drama and the Western Tradition (4) Representative plays from the 18th century to the present. Development of the Russian theater in the European context. Conducted in English.

SLL 348 Nabokov's Novels: Art and Exile (4) Survey of Vladimir Nabokov's novels written in Europe and America from the 1920s-1960s. Primary focus on the structure of the novels and their themes of art and emigration. Readings in English.

SLL 370 Advanced Russian for Native Speakers (4) For students with basic oral proficiency in Russian who need to develop native fluency in an array of genres and situations. Emphasis on advanced grammar, reading (literary and scholarly texts), written expression (scholarly, administrative, and business genres), spelling, and punctuation.

SLL 378 Modern Russian Art (4) Changing concepts of aesthetic value as expressed in the development of 19th and 20th century Russian art (painting and architecture).

SLL 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

SLL 420 Seminar in the Russian Language (4) Survey and detailed analysis of selected topics in the Russian language. *Prerequisite:* SLL 325.

SLL 465 Seminar in Russian Studies (4, max 12) Readings and discussion in Russian of current topics in Russian culture, politics and society. Content varies each time offered. *Prerequisite:* SLL 250.

SLL 470x Reading Scholarly Russian (4) Practical experience in reading current Russian scholarly works in student's field in the sciences, humanities, or social sciences. Not available for major credit to Slavic majors. *Prerequisite:* SLL 220.

SLL 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit.

SLL 499 Special Topics (2-4, max 8)

SLL 500 Topics in Advanced Russian (2, max 8) Study of Russian required for graduate work and professional activities. *Prerequisite:* four years of college Russian.

SLL 501 Proseminar in Russian Literature (3, Fa) Introduction to graduate study of Russian literature: research methods, bibliography, transliteration, development of critical writing skills.

SLL 510 Old Church Slavonic (3) Study of the earliest recorded Slavic language; linguistic interpretation of original texts; knowledge of a Slavic language or general linguistics will be helpful.

SLL 512 History of the Russian Language (3) Phonetic, morphological, syntactical changes from common Slavic to the present. Russian literary language; influence of 19th century Russian authors and old church Slavic on contemporary Russian.

SLL 514 Structure of Modern Russian: Phonology (3) Articulatory phonetics, phonemics, morphophonemics, and intonational patterns of modern Russia. *Prerequisite:* three years of college Russian.

SLL 516 Structure of Modern Russian: Morphology (3) Essential issues in current linguistic description of the syntax and morphology of modern Russian. Considers word order, negation, verbal aspect.

SLL 530 Early Russian Literature and Culture (11th-17th Centuries) (3) Major monuments of medieval Russian literature examined in their cultural, literary, and theological context, with special emphasis on issues of genre. Focus on problems of Russian cultural identity and Russia's complex relationship to Byzantine and Western traditions. *Prerequisite:* SLL 510 and SLL 514.

SLL 532 18th Century Russian Literature (3) Major works and genres of the 18th century. The development of a "modern" literary tradition, focusing on problems of Russia's indigenization of Western literary movements (classicism and sentimentalism).

SLL 542 Symbolism (3) Russian symbolist literature; cultural and philosophical background of this late 19th and early 20th century movement. *Prerequisite:* three years of college Russian.

SLL 544 Russian Short Story (3) Pushkin, Gogol, Dostoevsky, Turgenev, Tolstoy, Chekhov. *Prerequisite:* three years of college Russian.

SLL 545 19th Century Russian Poetry (3) Analysis of major works of 19th century Russian poetry in the context of developing aesthetic principles and cultural history. *Prerequisite:* SLL 501.

SLL 546 The Russian Novel (3) Genre of the novel as exemplified in the works of one or more Russian authors. Readings from Gogol, Turgenev, Tolstoy, Dostoevsky, and others. *Prerequisite:* three years of college Russian.

SLL 548 History of Russian Literary Criticism (3) History and principles of literary criticism in Russia with attention to major periods and movements from the early 19th century through the Formalists.

SLL 555 Soviet Literature I (1917-1953) (3) The course surveys the major writers and literary schools of Soviet literature in the crucial period from the Revolution to the death of Stalin.

SLL 557 Soviet Literature II (1953-present) (3) De-Stalinization of Soviet culture, the reappropriation of Russia's literary past, and new directions in contemporary literature.

SLL 575 Socialist Realism (3) The course examines the origins, doctrine, and ideology of socialist realism, the predominant, and officially prescribed, aesthetic of Soviet literature.

SLL 584 Russian Fiction and the West (3) A survey of major Russian fiction in the context of Western European literary movements from the late 18th through late 19th centuries. The course presumes the students' basic acquaintance with the major monuments.

SLL 585 20th Century Russian Literary Criticism (3) Relationship between practical and theoretical literary criticism: Formalism and Structuralism, Sociological school, and Bakhtin; theoretical approaches applied to specific literary texts.

SLL 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

SLL 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded IP/CR/NC.

SLL 599 Special Topics (2-4, max 8)

SLL 650 Seminar in Russian Literature (3, max 9) Detailed study of single literary period, movement or genre; two or more selected authors; specific school of literary criticism. May be repeated, with departmental permission, if content of the seminar is different. *Prerequisite:* three years of college Russian; *recommended preparation:* one year of graduate study.

SLL 660 Seminar on a Single Author or Work (3, max 9) Theme varies from year to year. An author or major work will be selected for intensive study; research paper required. May be repeated, with departmental permission, if content of the seminar is different. *Prerequisite:* three years of college Russian; *recommended preparation:* one year of graduate study.

SLL 665 Seminar in Russian Culture and the Arts (3, max 9) Subject varies from year to year.
A trend or major figure will be studied in its cultural and artistic contexts. May be repeated, with departmental permission, if content of the seminar is different. *Prerequisite:* three years of college Russian; *recommended preparation:* one year of graduate study.

SLL 790 Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

SLL 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

Sociology

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Chair: Timothy Biblarz, Ph.D.

Faculty

Myron and Marian Casden Directorship of the Casden Institute for the Study of the Jewish Role in American Life: Bruce Zuckerman, Ph.D.

Professors: Lynne Casper, Ph.D.; Barry Glassner, Ph.D. *(Executive Vice Provost)*; Herman Gray, Ph.D. *(Communication)*; Sharon Hays, Ph.D.; Pierrette Hondagneu-Sotelo, Ph.D.*; Michael Messner, Ph.D.*; H. Edward Ransford, Ph.D.*; Merril Silverstein, Ph.D.; Bruce Zuckerman, Ph.D. *(Religion)*

Associate Professors: Timothy Biblarz, Ph.D.*; Nina Eliasoph, Ph.D.; Elaine Bell Kaplan, Ph.D.; Paul Lichterman, Ph.D.; Adele Pillitteri, Ph.D.; Leland Saito, Ph.D.

Assistant Professors: Amon Emeka, Ph.D.; Macarena Gomez-Barris, Ph.D.; Kelly Musick, Ph.D.

Research Professor: Jon Miller, Ph.D.*

Emeritus Professors: Constance Ahrons, Ph.D.; Vern Bengston, Ph.D. *(Gerontology)*; Lamar T. Empey, Ph.D.; Daniel Glaser, Ph.D.; Malcolm Klein; Thomas E. Lasswell, Ph.D.*; Harvey J. Locke, Ph.D.; Maurice D. Van Arsdol, Jr., Ph.D.

*Recipient of university-wide or college teaching award.

Undergraduate Programs

The Department of Sociology offers a departmental major. The greater Los Angeles area provides a natural laboratory for studying such sociological themes as race relations, work and the workplace, the family in a changing society, population trends and crime. Some of the undergraduate courses involve field research in the urban environment.

The department also offers a minor in sociology to students majoring in other disciplines, a minor in forensics and criminality and a variety of interdisciplinary minors.

Honors Program

Students with high GPAs in the major and overall (3.5 in the major and 3.25 overall) will be eligible to participate in an honors program consisting of two senior honors seminars and the completion of a significant piece of research under faculty guidance. Honor students will complete all major requirements and will take SOCI 494 and SOCI 495 in place of two theme area courses. SOCI 313 and SOCI 494 are prerequisites for SOCI 495.

Graduate Programs

The Department of Sociology offers the Master of Arts in Sociology and Doctor of Philosophy in Sociology.

Undergraduate Degrees

Major Requirements for the Bachelor of Arts in Sociology

Nine sociology courses to include: SOCI 313, SOCI 314, SOCI 370, and may include one lower division course (SOCI 200). The elective upper division sociology courses are grouped into four theme areas: Theme Area I: *Deviance*, consisting of SOCI 350, SOCI 351 and SOCI 353; Theme Area II: *Social Inequality*, consisting of SOCI 342, SOCI 355, 356, SOCI 360, SOCI 364, SOCI 366, SOCI 376, SOCI 386, SOCI 432, SOCI 435, SOCI 437, SOCI 455; Theme Area III: *Social Organization*, consisting of AMST 357, SOCI 315, SOCI 331, SOCI 340, SOCI 345, SOCI 375, SOCI 408, SOCI 420, SOCI 422, SOCI 430, SOCI 445, SOCI 470, SOCI 475; and Theme Area IV: *Population and Family Studies*, consisting of SOCI 303, SOCI 305, SOCI 320, SOCI 335, SOCI 369, SOCI 385, SOCI 425, SOCI 460. Students must choose their sociology electives from a minimum of two theme areas. Honor students will complete all major course requirements and will take SOCI 494 and SOCI 495 in place of two theme area courses.

Sociology Minor Requirements

The department offers four emphases within the minor in sociology. There are no prerequisites before adding the minor. Students choosing the general emphasis take four upper division sociology courses (16 units), one course from each of the four theme areas. See Major Requirements for the theme areas.

Those pursuing the health and social welfare emphasis will take four upper division courses, three of which must be from the following cluster:

SOCI 305	Sociology of Childhood	4
SOCI 360	Social Inequality: Class, Status and Power	4
SOCI 369	The Family in a Changing Society	4
SOCI 475	Medical Sociology	4

Plus one other upper division course from any theme area.

Students selecting the industrial relations and human resources emphasis complete three courses from the following cluster:

SOCI 340	Organizations: Bureaucracy and Alternatives to Bureaucracy	4
SOCI 342	Race Relations	4
SOCI 360	Social Inequality: Class, Status and Power	4
SOCI 430	Work and the Workplace	4

Plus one other course from any theme area other than social organization.

Students in the deviant behavior and the law emphasis take four upper division courses, three of which must be from the following cluster:

SOCI 350	Deviant Behavior	4
SOCI 351	Sociology of Juvenile Delinquency and the Juvenile Justice System	4

SOCI 353	Sociology of Crime and of the Criminal Justice System	4
SOCI 360	Social Inequality: Class, Status and Power	4

Plus one other upper division course from any theme area other than deviance.

See an undergraduate advisor for further details on requirements for the minor.

Minor in Forensics and Criminality

The interdisciplinary minor in forensics and criminality was designed for students interested in the study of law, deviant behavior or careers in the criminal justice system. In this program, students study psychological and/or ethical issues related to criminal behavior, consider criminality in the context of social class analysis, and learn about the American system of criminal justice. Twenty units are required, 4 at the lower division and 16 at the upper division level.

Students should choose a curriculum for their minor based on their academic interests. Those students interested in white collar crime, for example, might choose POSC 130 Law, Politics, and Public Policy at the lower division level, REL 375 Conflict and Change and the Ethics of Business, SOCI 350 Deviant Behavior, PHIL 340 Philosophy of Law and PPD 342 Crime and Public Policy.

Those who are interested in the criminal justice system might choose LAW 200x Law and Society, REL 341 Ethics in a Technological Society, SOCI 351 Sociology of Juvenile Delinquency and the Juvenile Justice System, POSC 340 Constitutional Law and POSC 432 The Politics of Local Criminal Justice.

Those interested in individual and social determinants of deviancy might take PSYC 100 Introduction to Psychology, PSYC 360 Abnormal Psychology, or PSYC 463 Criminal Behavior, or PSYC 465 Introduction to Forensic Psychology; SOCI 360 Social Inequality: Class, Status, and Power, LAW 402 Psychology and Law and SOCI 353 Sociology of Crime and of the Criminal Justice System.

LOWER-DIVISION REQUIREMENT (4 UNITS)		UNITS
Choose one course from:		
AMST 101	Race and Class in Los Angeles	4
LAW 200x	Law and Society	4
PHIL 140	Contemporary Moral and Social Issues	4
POSC 130	Law, Politics, and Public Policy	4
PSYC 100	Introduction to Psychology	4
PSYC 155	Psychological Perspectives on Social Issues	4
PSYC 165L	Drugs, Behavior, and Society	4
SOCI 142	Diversity and Racial Conflict	4
SOCI 150	Social Problems	4
SOCI 200	Introduction to Sociology	4

UPPER DIVISION REQUIREMENTS (16 UNITS)		UNITS
Choose one course from each group below:		
The Individual in Society		
PSYC 355*	Social Psychology, or	
SOCI 320	Social Psychology	4
PSYC 360*	Abnormal Psychology	4
PSYC 463*	Criminal Behavior	4
PSYC 465*	Introduction to Forensic Psychology	4
REL 341	Ethics in an Technological Society	4
REL 375	Conflict and Change and the Ethics of Business	4
Social Class and Criminality		
SOCI 350	Deviant Behavior	4
SOCI 351	Sociology of Juvenile Delinquency and the Juvenile Justice System	4
SOCI 360	Social Inequality: Class, Status, and Power	4
The System of Criminal Justice		
LAW 402	Psychology and Law	4
LAW 403	Mental Health Law	4
PHIL 430	Philosophy of Law	4
PHIL 437	Social and Political Philosophy	4
POSC 340	Constitutional Law	4
POSC 426	The United States Supreme Court	4
POSC 444	Civil and Political Rights and Liberties	4
PPD 340	The American System of Justice	4
Crime and Punishment		
POSC 432	The Politics of Local Criminal Justice	4
PPD 342	Crime and Public Policy	4
SOCI 353	Sociology of Crime and of the Criminal Justice System	4

* Prerequisite: PSYC 100

Total requirements: five courses (20 units)

Interdisciplinary Minors

American Studies and Ethnicity (see American Studies and Ethnicity, page 246).
Bioethics (see Bioethics, page 264).
Children and Families in Urban America (see Social Work, page 828).
Education in a Pluralistic Society (see Education, page 535).
Law and Society (see Political Science, page 423).
Managing Human Relations (see Interdisciplinary Programs, page 102).
Race, Ethnicity and Politics (see Political Science, page 424).

Graduate Degrees

The Department of Sociology offers programs of study leading to the Doctor of Philosophy degree. The master's programs are designed to develop technical skills in social science research and provide some theoretical training in sociology. The Ph.D. is directed toward the training of theoretically and methodologically sophisticated sociologists who have an enduring commitment to the practice and teaching of sociology.

Deadline

Applicants must complete their applications by December 1. Consideration for university fellowships is possible as early as November for students whose applications are complete.

Prerequisites

All applicants must have a bachelor's degree, a GPA of at least 3.0, and one or more courses in either undergraduate statistics or college algebra.

Criteria

Admission to regular graduate status ordinarily requires possession of a bachelor's degree, a GPA of at least 3.0, one or more courses in undergraduate statistics and/or college algebra, and three letters of recommendation. The GRE is also required; scores of 550 or better on each of the verbal, quantitative and analytic portions of the GRE are preferred. International applicants must also submit their score on the Test of English as a Foreign Language (TOEFL). Approximately 6-8 students enroll each year from the available

pool of applicants. Each application receives careful attention and is judged in terms of the full set of criteria.

A limited number of graduate course units taken elsewhere may be considered for transfer into the graduate program. These units are transferred in on a course-by-course basis.

Application Procedures
The following steps should be followed in applying for graduate study:

1. Submit the following to the University Admission Office:
(a) A completed University of Southern California Application form with appropriate fee; (b) official transcripts of all undergraduate and graduate work; (c) the official results of the three general aptitude scores of the Graduate Record Examinations (verbal, quantitative and analytic); (d) for international students, a TOEFL score.

2. Submit the following to the Admissions Committee of the Sociology Department:
(a) A completed Departmental Graduate Application form; (b) official transcripts of all undergraduate and graduate work; (c) one example of written work (normally a paper written for a course) of no more than 20 pages; (d) three letters of recommendation from persons who can write about your academic performance and your potential as a social scientist.

Degree Requirements
These degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Residence
All graduate students must be in residence and must take at least eight units of graduate work each semester (except during Advanced and Qualifying Examinations), prior to work on the dissertation.

Master of Arts in Sociology
The department does not admit students whose objective is a master's degree. However, if a student accepted in the program does not have a master's degree, the department strongly recommends completion of the requirements for the M.A. in the course of work toward the Ph.D. degree.

Doctor of Philosophy in Sociology
Course Requirements
A minimum of 60 graduate units is necessary for the Ph.D., among which are the following required courses: SOCI 510, SOCI 520, SOCI 521, SOCI 523 or SOCI 524, SOCI 610, and SOCI 621. In addition, each student must specialize in two subareas of sociology and must take at least 8 units in each area such as: urban sociology, complex organizations, stratification, ethnic relations, sociology of aging, medical sociology, communication and culture, deviance, sociology of gender, demography, and so on.

Screening Procedure
Normally, students must complete the screening procedure during the third semester of enrollment. Students will have completed two full semesters of work by this point and, hence, will have taken no fewer than 16 and no more than 24 units, including at least three of the following: SOCI 510, SOCI 521, SOCI 522, SOCI 523 or SOCI 524, SOCI 610, and SOCI 621. Students are evaluated on subject matter competence and satisfactory progress. When the screening procedure is successfully completed, the student has one semester in which to form a guidance committee.

Empirical Paper
Each student is required to complete an independent empirical research project which is approved by two members of his or her guidance committee. In some instances, this requirement may be met by acceptance of a satisfactory master's thesis from some other university.

Foreign Language Requirement
The department does not generally require proficiency in a foreign language; however, as with other courses outside the department, a student's guidance committee may in some cases require proficiency in a foreign language.

Qualifying Examinations
Following the completion of their empirical papers and most of their course work, students are required to take a written and oral examination in their two specialty areas. If the written examination is passed, the oral part of the examination can be devoted to a preliminary discussion of dissertation plans. When these are completed successfully, the student is advanced to Ph.D. candidacy.

Dissertation
After the dissertation is completed, the student and the dissertation committee, in conjunction with the department chair, may elect either a defense oral or a final oral examination in defense of the dissertation. The defense oral is normally chosen in sociology.

Courses of Instruction

SOCIOLOGY (SOCI)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

SOCI 142gm Diversity and Racial Conflict (4, FaSp) Introduction to the causes and effects of contemporary race relations in a diverse U.S. society. Exploration of racial conflict at the personal and institutional levels. *Concurrent enrollment:* WRIT 140.

SOCI 150gm Social Problems (4, Fa) Analysis of factors in current American social problems: crime, delinquency, prostitution, family disorganization, race relations, mental illness. *Concurrent enrollment:* WRIT 140.

SOCI 155g Immigrant America (4, FaSp) Examination of the immigrant experience in the United States. Comparative analysis of social context of migration, formation of immigrant communities, and social integration of immigrants. *Concurrent enrollment:* WRIT 140.

SOCI 169gm Changing Family Forms (4, FaSp) The peculiarity of the "modern" Western family system in historical and cross cultural perspective; focus on the "postmodern" family crisis in the United States. *Concurrent enrollment:* WRIT 140.

SOCI 200m Introduction to Sociology (4) Basic concepts of sociology with special reference to group life, social institutions, and social processes.

SOCI 250gm Grassroots Participation in Global Perspective (4) Theory and history behind the ideal of "the local, grassroots volunteer": a direct link between theory and research using Los Angeles as a case study.

SOCI 275 Sociology of Everyday Life (4) The social philosophy of understanding everyday life; describing and analyzing forms of interaction, emotions, knowledge, and the social self.

SOCI 303 Sociology of Human Development (4) Group processes and group-individual interactions which explain the characteristics of human development at various stages of life.

SOCI 305m Sociology of Childhood (4) Social construction of childhoods; children's social relations and cultures; issues of childcare, poverty, violence, and children's rights; effects of children on adults.

SOCI 313 Sociological Research Methods (4, FaSp) Logic of theory construction, research design, elementary data collection and analysis. Lecture and laboratory.

SOCI 314 Sociological Statistics (4, FaSp) Sociological measurement, univariate description, elementary correlation, introduction to statistical inference.

SOCI 315 Sociology of Sport (4) Relationship between sport and politics, racism, and sexism; player and fan violence; sports for children; sport in the educational setting; drug abuse among athletes.

SOCI 320 Social Psychology (4) Process of interaction and communication by which persons influence and are influenced by others; development of self, role behavior, attitudes and values, social norms, cultural conditioning.

SOCI 331 Cities (4) Organization of urban society, including such topics as segregation, urban decay, local politics, residential change, and community conflict.

SOCI 335 Society and Population (4) World population trends and their consequences: determinants of fertility, mortality, and migration; development of elementary models of population change.

SOCI 340 Organizations: Bureaucracy and Alternatives to Bureaucracy (4) Importance of organizations in social life; techniques for using and changing organizations; examination of strategies for building and sustaining nonbureaucratic organizations.

SOCI 342m Race Relations (4, FaSp) Past and present relations between the White majority and the "conquered minorities" (Blacks, Chicanos, American Indians), as well as Asian immigrants; conflict vs. assimilation perspectives.

SOCI 345 Social Institutions (4) Cultural and interactional aspects of social institutions as complex social systems; religious, political, industrial, and familial institutions.

SOCI 350 Deviant Behavior (4) Current theories of origin, distribution, and control of deviant behavior; examination of processes involved in the career deviance of drug addicts, alcoholics, sexual deviants, gamblers, and mentally disordered.

SOCI 351 Sociology of Juvenile Delinquency and the Juvenile Justice System (4, Sp) Past and current theories of youth crime; gangs and other forms of youth deviance; the changing response of the police, courts, and public to these behaviors.

SOCI 353 Sociology of Crime and of the Criminal Justice System (4, Fa) Nature and trends in crime, policing, courts, and correctional agencies in relation to past, current, and prospective changes in society.

SOCI 355m Immigrants in the United States (4) Social construction of historical and contemporary immigration to the United States, including causes of migration, immigration policies, and the socioeconomic integration of immigrants.

SOCI 356m Mexican Immigrants in a Diverse Society (4, Fa) Effects of class, global inequality, legal status, gender, racial/ethnic, and language differences in distinguishing Mexican immigrant populations from the U.S.-born population; differentiation among Mexican immigrants.

SOCI 357m Latino Politics (4) (Enroll in AMST 357m)

SOCI 360m Social Inequality: Class, Status, and Power (4, FaSp) Inequalities in wealth, prestige, and power in the United States; the American class structure and the extent of upward mobility in that structure.

SOCI 364m Racial and Ethnic Women in America (4, FaSp) (Enroll in SWMS 364*m*)

SOCI 366m Chicana and Latina Experiences (4) Sociological examination of Chicana and Latina experiences in the western region of the United States; issues of family, work, media, education and sexuality.

SOCI 369 The Family in a Changing Society (4, Fa) Changing family patterns; personality development; family unity, predicting success in marriage; the family in transition; crises such as economic changes, death, divorce; family reorganization.

SOCI 370 Introduction to Sociological Theory (4, FaSp) Historical and contemporary approaches to sociological theory; analysis of conceptual frameworks applied to the study of society and social interaction.

SOCI 375m Asian Americans: Ethnic Identity (4) Cultural images and stereotypes, gender, immigration history, social class, politics, and social problems in Asian American communities.

SOCI 376m Contemporary Issues in Asian American Communities (4) Survey of current social and political issues facing Asian American communities with emphasis on Los Angeles region; design and implementation of community-based research projects.

SOCI 382 Judaism as an American Religion (4) (Enroll in JS 382)

SOCI 385 Population, Society, and Aging (4, Fa) Study of population characteristics related to the problems and processes of aging.

SOCI 386m Men and Masculinity (4) (Enroll in SWMS 385*m*)

SOCI 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

SOCI 408 Volunteers, Non-Governmental Organizations, and Everyday Politics (4, FaSpSm) Theory, practice, and history of civic life. Examines communication, personal obligation, collective imagination, and political representation, in grassroots, state-sponsored, and non-governmental organization-sponsored civic associations around the world. *Prerequisite:* SOCI 370.

SOCI 420 Sociology of Violence (4, FaSp) Theoretical, conceptual and analytical skills in the study of collective violence, its legacies, and how society deals with it.

SOCI 422 Social Groups (4) Analysis of structure and function of social groups, to include families, university groups, professional associations, encounter groups, and juvenile gangs.

SOCI 425 Crowds, Publics, and Social Movements (4, FaSp) Spontaneous, expressive and creative forms that support or revolutionize society, including topics such as audiences, student unrest, tax revolts, patriotism, uprisings, and women's movements.

SOCI 430m Work and the Workplace (4) Contrasting views of work in contemporary societies; technological change in the workplace; opportunity, inequality, conflict, and alienation in different occupations.

SOCI 432m Racial and Ethnic Relations in a Global Society (4, FaSp) Examination of race/ethnic relations with U.S. and selected countries from a global perspective, causes and social effects of globalization on people's lives and on U.S. attitudes and political policies.

SOCI 435m Women in Society (4) Women today in the labor force, in politics, and in the family. Past and contemporary attempts to expand the position of women in society.

SOCI 437m Sexuality and Society (4) Historical and contemporary sexual issues (pornography, prostitution, rape) examined in light of Victorianism, Freudianism, Marxism, scientific sexology, feminism, gay liberationism, and sexual conservatism.

SOCI 445 Political Sociology (4, Irregular) Political power, conflict and apathy; public symbols, debate and discourse; nationalism; relations between politics, provision of social services and economics in comparative and historical perspective. *Prerequisite:* SOCI 370.

SOCI 455m Gender and Sport (4) (Enroll in SWMS 455*m*)

SOCI 460 Key Issues in Contemporary International Migration (4, Irregular) Overview of contemporary patterns of international migration and its implications for receiving and sending countries, with a special emphasis on immigration to the United States.

SOCI 470 Development and Social Change in the Third World (4) Theories and case studies on social, economic, political, and cultural development and change in the Third World: Latin America, Asia, or Africa.

SOCI 475 Medical Sociology (4) Social and cultural factors in causation of disease, health care utilization and health care delivery.

SOCI 490x Directed Research (2-8, max 8, FaSpSm) Individual research and readings. Not available for graduate credit.

SOCI 494 Sociology Honors Seminar I (4, Fa) Advanced seminar involving extensive reading, research and discussions. Selected subjects; offered in fall only and restricted to honors students. Acceptance into the Honors Program.

SOCI 495 Sociology Honors Seminar II (4, Sp) Seminar in workshop form to accompany completion of Senior Honors Thesis under faculty guidance. Acceptance into Honors Program. *Prerequisite:* SOCI 313, SOCI 494.

SOCI 499 Special Topics (2-4, max 8) An interdisciplinary examination of selected emerging issues.

SOCI 510 Sociological Theory I (4, Fa) Developments in sociological theory from the discipline's 19th century origins to World War II.

SOCI 520 Qualitative Research Methods (4, Fa) Seminar in epistemologies, ethics, and techniques of qualitative research. Critical reading and practice in social observation, interviewing, fieldwork, and research design. Preparation of IRB proposal.

SOCI 521 Quantitative Methods and Statistics (4, Fa) Introduction to the logic and methods of quantitative analysis in sociology; covers the basic elements of designing and research, summarizing and exploring patterns in data, and making generalizations about populations based on characteristics of samples. *Prerequisite:* SOCI 314.

SOCI 523 Advanced Methods — Quantitative Research (4, Sp) Advanced research methodology in survey technique, evaluation research, instrument construction, and demographic analysis. *Prerequisite:* SOCI 522.

SOCI 524 Advanced Methods — Qualitative Research (4, Sp) Seminar and practicum in conducting and interpreting original qualitative research. *Prerequisite:* SOCI 520.

SOCI 530 Work, Occupations and Social Change (4) Processes and consequences of technological change. Structure and dynamics of work organizations. Sociological and anthropological works which pertain to the organization of the work process. Departmental approval required.

SOCI 535 Sociology of Culture (4, FaSp) Cultural theories and forms of cultural analysis appropriate for sociological research; critical examination of theory and research on how culture relates to social structure, social inequality, politics, institutions, and everyday interaction. *Recommended preparation:* SOCI 510 or prior undergraduate or graduate course work in social science or communication studies.

SOCI 540 Methods of Population and Ecological Analysis (2-4, Sm) Measures of population; ecological structure and change; life table methods; population estimates, projections, forecasts; distributional analysis and evaluation of demographic and ecological data. *Prerequisite:* SOCI 521.

SOCI 544 Population Trends: Public and Private Policies (4, Sm) World and national population trends; causes and implications for economic, health, and social policies.

SOCI 545 Seminar in World Population Problems (4) Demographic characteristics of the major regions of the world; social, economic, and political implications of population trends and methods of demographic analysis. *Prerequisite:* SOCI 335.

SOCI 547 Computer Applications to Sociology and Other Social Sciences (4, Sm) Adaptations of hardware and software to specific social science research and teaching needs. *Prerequisite:* departmental approval.

SOCI 548 Fertility Control Policies (4, Sm) Fertility control policies, and their consequences, including family planning and other pronatalist and antinatalist programs.

SOCI 549 Migration Policies (4) Analysis of migration and population redistribution; policies affecting such migration and redistribution.

SOCI 550 Seminar in Organizational Analysis (4) Literature evaluation, theory building, and research in the area of large-scale organizations and other types of institutionalized groups. *Prerequisite:* graduate standing.

SOCI 551 Seminar in Social Stratification (4) Critique of research literature and research methods in the area of social class and social stratification; major theories and theoretical implications of current research.

SOCI 552 Sex and Gender in Society (4, Fa) The social organization of gender in the contexts of work, families, intimacy, sexuality, reproduction, violence. Variations by race, ethnicity, social class. Processes of social change.

SOCI 554 Women in Global Perspective (4) (Enroll in SWMS 554)

SOCI 555 Seminar in Race Relations (4, Sp) Current racial problems in the United States and other countries; critiques of race relations literature.

SOCI 560 Feminist Theory (4) (Enroll in SWMS 560)

SOCI 562 Crime and the Criminal Justice System (4) Analysis of selected problems in the etiology of crime and a survey of the processes of social control by the criminal justice system and the community.

SOCI 563 Seminar in Juvenile Delinquency (4) Theoretical and research contributions on the causes, prevention, and treatment of delinquent behavior.

SOCI 566 Seminar in Social Deviance (4) Deviance and social rules in groups and communities; contemporary social policies involving ethnic, cultural, and social factors.

SOCI 575 Seminar in Immigration (4, FaSm) Survey of key theoretical approaches and relevant issues in immigration studies. Themes include: transnationalism, globalization, gendered migration, segmented assimilation, immigrant labor markets, social incorporation and citizenship. Open to Ph.D. in Sociology students only.

SOCI 580 Seminar in Aging (4) Research seminar to review identification of problems, issues of theory, and methodology and implications for research designs.

SOCI 590 Directed Research (1-12, FaSpSm) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

SOCI 594abz Master's Thesis (2-2-0, FaSpSm) Credit on acceptance of thesis. Graded IP/CR/NC.

SOCI 599 Special Topics (2-4, max 8, FaSp) Seminar in selected topics in sociology.

SOCI 610 Sociological Theory II (4, Sp) Developments in sociological theory from World War II to the present.

SOCI 621 Quantitative Methods and Statistics II (4, Sp) Casual modeling and the inter-relationships among social phenomena: covers the basic elements of casual inference and generalizability, linear regressions analysis, and categorical data analysis. *Prerequisite:* SOCI 521.

SOCI 628 Theories of Aging (4) (Enroll in GERO 628)

SOCI 635 Seminar in Social Structure (4) Research and theory development on the interrelations among the various structures that comprise social systems. An examination of large societal units. *Prerequisite:* advanced graduate standing.

SOCI 650 Topical Issues in Crime and Delinquency (2-4) Seminar in selected topics in criminology.

SOCI 664 Seminar in Advanced Methodology (4, max 8) Issues and problems in advanced research design and data analysis.

SOCI 790 Research (1-12, FaSp) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

SOCI 794abcdz Doctoral Dissertation (2-2-2-2-0, FaSpSm) Credit on acceptance of dissertation. Graded IP/CR/NC.

Sophomore Seminars

Sophomore Seminars focus on topics of current interest in research and scholarship. They are small classes that encourage close interaction between faculty and students.

During the fall and spring semesters, sophomores earn 2 units of credit through participation in these weekly seminars. During intensive special sessions, sophomores earn 1 unit of credit. These courses emphasize active exploration of the life of the mind through a variety of classroom activities and assignments.

To encourage a relaxed interchange of information and ideas, each seminar is graded credit/no credit and limited in enrollment to 18 students.

Sophomore Seminars will be offered for the fall and spring semesters in a variety of subjects. They will also be offered during intensive special sessions. Individual topics will be indicated in the *Schedule of Classes* under the SSEM designation.

Courses of Instruction

SOPHOMORE SEMINARS (SSEM)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

SSEM 200 Sophomore Seminar (1-2, max 2, FaSp and Special Sessions) Special seminar courses for sophomores; limited to 18 students; topics will vary; graded CR/NC. Open to sophomores only.

Spanish and Portuguese

Taper Hall of Humanities 156
(213) 740-1258
FAX: (213) 740-9463
Email: spandept@usc.edu
www.usc.edu/dept/spanish

Chair: Roberto Ignacio Díaz, Ph.D.*

Faculty
Professors: Mario Saltarelli, Ph.D.; Carmen Silva-Corvalán, Ph.D.*; Sherry Marie Velasco, Ph.D.

Associate Professors: Roberto Ignacio Díaz, Ph.D.*; Maarten van Delden, Ph.D.

Assistant Professors: Daniela Bleichmar, Ph.D. *(Art History)*; Gabriel Giorgi, Ph.D.*; Alexandra Isfahani-Hammond, Ph.D.

Emeritus Professor: Paul Ilie, Ph.D.

Emeritus Associate Professor: J. Ramón Araluce, Ph.D.

Academic Program Staff
Director of Spanish Language Program: Gayle Fiedler Vierma, Ph.D.

Associate Faculty with Titles in Spanish and Portuguese
Marsha Kinder, Ph.D. *(Cinematic Arts);* Moshe Lazar, Ph.D. *(Comparative Literature);* Teresa McKenna, Ph.D. *(English);* Alexander Moore, Ph.D. *(Anthropology)*

*Recipient of university-wide or college teaching award.

Undergraduate Programs
The Department of Spanish and Portuguese offers both a major and a minor in Spanish, emphasizing the language, linguistics and culture of Spain and Latin America.

With an intellectual commitment to multiculturalism and interdisciplinarity, the undergraduate program actively explores the transnational intersection of various aspects of Spanish and Latin American culture, including literature, folklore, cinema, art, music and architecture. While living and studying in 21st century Los Angeles — the ideal site for thinking about the planet's increasingly transcultural condition — students are challenged to consider and reconsider a number of important issues: the growing importance of popular culture in Iberia, Latin America and Latino USA; the role of race, class and gender within Spanish and Latin American society; the crucial impact of diasporas and migrations on our contemporary cultural landscape; among many others.

The department encourages students to combine a Spanish major with a double major or minor in another discipline either within the College of Letters, Arts and Sciences or other schools at USC. Faculty undergraduate advisors are available to help provide information and assistance to students wishing to explore these various options.

The department also offers basic language instruction in both Spanish and Portuguese through which students can satisfy their foreign language requirement.

Graduate Programs
The Department of Spanish and Portuguese offers a Master of Arts in Spanish and a Doctor of Philosophy in Spanish under the jurisdiction of the Graduate School.

Spanish Undergraduate Students Association (SUSA)
Students majoring or minoring in Spanish are eligible to join SUSA, the Spanish Undergraduate Students Association. Each year SUSA sponsors a variety of activities which enrich the cultural, intellectual and academic experience of the undergraduate student.

Sigma Delta Pi, ETA Chapter
USC's ETA Chapter of the Spanish National Honorary Society is one of the charter chapters of an association that now has over 400 chapters. Spanish majors and minors with outstanding academic records can apply for membership each year. The USC chapter also sponsors yearly cultural activities to which all students of Spanish are invited.

Undergraduate Degrees

General Information
Spanish Language Proficiency Examination
Students who have studied Spanish in high school are required to take a placement test, administered by the University Testing Bureau. Credit is given only for course work taken above the level of proficiency determined by the examination. Students with no record of previous instruction in Spanish are not required to take the placement examination and should contact the department for assistance.

Courses in Spanish
All courses at the 200, 300 and 400 levels are conducted in Spanish unless otherwise noted in the course descriptions that follow. Courses are kept small to allow for maximum interaction between students and professors.

Advisement
Every year faculty members are assigned to serve as Spanish undergraduate advisors and mentors, providing advice prior to registration and throughout the academic year.

Major Requirements for the Bachelor of Arts in Spanish

REQUIRED COURSES - LOWER DIVISION (8 UNITS)		UNITS
SPAN 265	Spanish for Communication: Society and the Media	4
SPAN 266	Spanish for Communication: Arts and Sciences	4

REQUIRED COURSES - UPPER DIVISION (16 UNITS)		UNITS
Two of the following literature courses:		
SPAN 304	Survey of Fiction	4
SPAN 306	Survey of Drama	4
SPAN 308	Survey of Poetry	4
One of the following language courses:		
SPAN 310	Structure of Spanish	4
SPAN 315	Advanced Grammar and Translation	4
One of the following culture courses:		
SPAN 320	Iberian and Latin American Cultures: Readings on Society	4
SPAN 321	Iberian and Latin American Cultures: Readings on the Arts	4

Electives (16 units):

Four other upper division courses in language, literature or culture.

Only one section of SPAN 316x may be taken for major or minor credit.

Honors Program

The B.A. in Spanish with Honors is available to students who have a GPA of at least 3.5 in courses counted for major credit and an overall GPA of 3.0 (by the time of graduation). Desire to complete the major with honors typically should be approved by a department faculty member no later than the second semester of the junior year. To complete the honors program the student must write an honors thesis in Spanish in conjunction with a 400-level course. The thesis, in the range of 25-30 pages (6,250-7,500 words), must be endorsed by a departmental honors committee by April 1 of the senior year.

Minor in Spanish

REQUIRED COURSES - LOWER DIVISION (8 UNITS)		UNITS
SPAN 265	Spanish for Communication: Society and the Media	4
SPAN 266*	Spanish for Communication: Arts and Sciences	4

UPPER DIVISION (16 UNITS)	UNITS
Any four courses at the 300- or 400-level	

BASIC LANGUAGE **		UNITS
SPAN 120	Spanish I	4
SPAN 150	Spanish II	4
SPAN 220	Spanish III	4

*The second 260-type course may be taken concurrently with upper division courses.

**Majors and minors must meet one of the following prerequisites: a score of 5 in the Spanish language or literature advanced placement (AP) exam, a score of 620 in the Spanish achievement exam, a score of "Met" in the USC Language Placement exam, or the successful completion of SPAN 220. Students must have departmental approval.

Students who place beyond SPAN 220 in the USC language placement exam who have never taken a course in Spanish must complete SPAN 240 before they can register in SPAN 265 or SPAN 266.

Minor in Latin American Studies

The Latin American Studies minor recognizes the lasting importance of U.S.-Latin American relations. The overriding goal is to encourage students to learn more about Latin America by combining conceptual, area and language studies during their time at USC. The purpose of this 20-unit minor is to deepen students' knowledge of Latin America by offering courses from multiple disciplines within a context of close faculty guidance. The gateway requirement of one four-unit course provides the student with options in both humanities and the social sciences, and the designated electives are similarly meant to allow students to blend these specialties.

For fulfillment of the requirements for the minor a student must choose four classes outside of his or her major department dedicated exclusively to the minor (which may be the same four classes). After the gateway course, these elective courses must be spread across at least two disciplines and/or departments.

Required Courses

One of the following 4-unit gateway introductory courses: REL 133, COLT 250, HIST 273, HIST 372, IR 364, IR 365, POSC 350.

If the student has chosen a lower-division (100- or 200-level) course among the introductory choices, all area electives must be at the upper-division (300- or 400-) level.

Elective Requirements

Four courses (16 units) from the following list: AHIS 319, ANTH 425, COLT 250, ECON 340, GEOG 335, HIST 272, HIST 370, HIST 371, HIST 372, HIST 374, HIST 451, HIST 456, HIST 470, HIST 474, IR 364, IR 365, IR 408, IR 426, IR 454, IR 465, IR 466, POSC 350, POSC 430, POSC 431, SOCI 366, SPAN 320, SPAN 321, SPAN 372, SPAN 495.

Graduate Degrees

The degree programs in Spanish provide an optimal academic environment for students interested in advanced studies and research in the fields of Hispanic literatures and linguistics. M.A. students in the Spanish programs pursue a course of study designed to develop a broad knowledge of the subject matter within the framework of traditionally established intellectual concepts, as well as in the light of current developments in the field. Ph.D. students are encouraged to devise individualized programs of specialization in keeping with the highest standards of scholarship. The Spanish graduate programs are integrated with other programs in the university, (e.g., comparative literature and general and applied linguistics), providing a nationally competitive center for advanced studies in Hispanic literatures and linguistics.

Admission Requirements

Master of Arts

An undergraduate major in Spanish is required; however, programs may be arranged for promising students who have not completed such a major. A formal application, personal statement, three letters of recommendation, and a writing sample should be submitted to the department. All applicants are required to take the complete Graduate Record Examinations.

Doctor of Philosophy

In addition to the admission requirements for the master's degree, a high level of accomplishment at the master's level is required.

Degree Requirements

Graduate degrees are under the jurisdiction of the Graduate School. Refer to the Requirements for Graduation section (page 81) and the Graduate School section of this catalogue (page 91) for general regulations. All courses applied toward the degrees must be courses accepted by the Graduate School.

Master of Arts in Spanish

Thirty-two units, including SPAN 511 and either SPAN 595 (literature emphasis) or SPAN 596 (linguistics emphasis), are required. A minimum of 21 units must be at the 500-level or higher. For those specializing in literature, broad coverage of all periods and genres of both Spanish and Spanish American literature is expected. For those specializing

in linguistics, coverage of major areas, both theoretical and applied, is required. Combinations of literature and linguistics are possible.

Eight units may be taken in other departments with approval of the graduate advisor.

Facility and correctness in the use of spoken and written Spanish are required. All applicants for the degree must pass a comprehensive written examination, with an added oral component, in either literature or linguistics or a combination of these. Reading knowledge of one language in addition to Spanish and English is required. Evidence of such knowledge must be approved by the Graduate Studies Committee, upon petition by the student. Such reading knowledge may be demonstrated by the completion of courses in the foreign language, with the passage of an exam testing proficiency in reading comprehension and translation, or by such other methods of evaluation as may be approved by the Graduate Studies Committee upon petition by the student. All candidates for the M.A. in Spanish are encouraged to teach a Spanish course in the department. A screening procedure is conducted at the end of the first year in residence.

Doctor of Philosophy in Spanish
All applicants for the Ph.D. in Spanish are encouraged to teach a Spanish course in the department.

Course Requirements
In addition to fulfilling the requirements listed for the master's degree, applicants for the doctorate must complete 28 additional units of course work (60 unit minimum). Students who have not taken SPAN 511 and either SPAN 595 or SPAN 596 or their equivalents elsewhere, must take SPAN 511 and the other relevant course in addition to the minimum of 60 units.

Minor Requirement
Students must fulfill a minor requirement consisting of two graduate courses taken at the 500-level or above in the Department of Spanish and Portuguese. These two courses must be in Hispanic linguistics for students specializing in literature, and in Hispanic literature for students specializing in linguistics. In one of these courses a grade of B- or better must be achieved; the other course may be taken pass/no pass.

Screening Procedure
At the end of each student's first year of course work at the doctoral level, a screening procedure is conducted by all faculty members with whom the student has studied in order to determine whether the individual is progressing satisfactorily toward the degree objective.

Foreign Language Requirement
Reading knowledge of two languages in addition to Spanish and English is required; each student's guidance committee specifies which languages are to be offered. Reading knowledge may be demonstrated by the completion of courses in the foreign language, with the passage of an exam testing proficiency in reading comprehension and translation, or by such other methods of evaluation as may be approved by the student's guidance committee.

Guidance Committee
Immediately after a student's screening committee declares, after the first year of doctoral course work, that the student is making good progress toward the degree objective, the student and a graduate advisor select a guidance committee. The members of the committee advise the student in the selection of course work and conduct the qualifying examination.

Qualifying Examination
Literature: A four-hour comprehensive exam on both Spanish and Spanish American literature, based on an initial core list to which additional titles will be added by the student, in consultation with the guidance committee, to reflect Peninsular or Spanish American emphasis; two, three-hour exams selected from among the following: an approved field outside the department, a genre, a period, critical theory, a movement, a figure; one of the two exams just mentioned may be replaced by a paper presented at a national conference or a paper accepted for publication by a nationally-circulated, refereed journal, either option to be reviewed and approved by the guidance committee; an oral exam consisting of an explication de texte, clarification of the written sections and a defense of the dissertation prospectus.

Linguistics: A six-hour comprehensive examination, based on an initial core reading list to which additional titles will be added, for three different areas in the field (applied, historical, sociolinguistics, syntax, etc.); one of the three areas just mentioned may be replaced by a paper presented at a national conference or a paper accepted for publication by a nationally-circulated, refereed journal, either option to be reviewed and approved by the guidance committee; a four-day take-home exam in the major area of concentration; students choosing a second minor in literature may instead elect to be examined on an area in this field (a genre, a period, a movement, etc.); an oral exam clarifying the written portions and also a defense of the dissertation prospectus.

Dissertation
When the student passes the qualifying examinations and advances to doctoral candidacy, a dissertation committee of three members is appointed by the department chair in consultation with the candidate and the guidance committee. One faculty member serves as the dissertation director and aids the candidate in developing a dissertation on a topic in Hispanic linguistics or literature which can be considered to be original and of significance to scholarship.

Defense of the Dissertation
The department utilizes a defense oral examination in which the candidate, after completing the dissertation, discusses it with the committee and makes any changes required prior to typing in final form.

Certificate in Foreign Language Teaching
The Certificate in Foreign Language Teaching provides certification in the theory and practice of second or foreign language teaching for student language teachers concurrently enrolled in graduate degree programs in foreign languages or related graduate programs at USC; for graduates of such programs who are teaching languages; for external candidates concurrently enrolled in similar programs in accredited colleges or universities; or for graduates of such programs who are teaching languages. The certificate is meant to supplement graduate study in the literature or linguistics of foreign languages. It is also meant to supplement classroom teaching. Therefore all candidates for this certificate are required to have taught a second or foreign language for at least one academic year at USC or elsewhere. At USC, this requirement and the course work requirements can be fulfilled concurrently, but external candidates are required to show proof of such teaching experience as a condition of admission.

In addition to teaching, certificate candidates must complete a minimum of four courses (minimum of 12 units) in four areas of study — linguistics, language acquisition, language teaching methodology, and the teaching of literacy or the literature or culture of a second or foreign language.

Requirements for Completion
The program consists of a practicum and a minimum of four courses: one each in linguistics, language acquisition, language teaching methods, and the teaching of literacy, literature or culture.

Linguistics: (minimum of 3 units) LING 411x Linguistics and Education or, with permission of instructor, an appropriate course in the linguistics of a particular language.

Language Acquisition: (minimum of 3 units) CTSE 409 Foundations of Language Education or, with permission of instructor, LING 527 Second Language Acquisition or an appropriate alternative course.

Language Teaching Methods: (minimum of 3 units) CTSE 537 Methods in Bilingual Education and in Teaching English as a Second Language or EALC 562 Teaching of the East Asian Languages or SPAN 511 Techniques and Procedures of Teaching Spanish as a Second Language or an appropriate alternative course.

Literacy/Literature/Culture: (minimum of 3 units) EDHP 586 Teaching Reading and Writing in a Second Language for the Literate Student or an appropriate course in teaching of the literature or culture of a particular language.

Courses of Instruction

SPANISH AND PORTUGUESE

SPANISH (SPAN)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

SPAN 020x Spanish for Reading Knowledge (0) Preparation for the ETS standardized examination, with readings related to the student's major area. Offered upon sufficient demand. Not available for degree credit. Graded CR/NC.

SPAN 120 Spanish I (4) For students with limited proficiency in Spanish. Practice in listening comprehension, oral communication, elementary reading and writing. *Prerequisite:* Spanish placement exam.

SPAN 150 Spanish II (4) Continuation of SPAN 120; increased emphasis on listening comprehension, oral communication, reading, and writing. *Prerequisite:* SPAN 120.

SPAN 220 Spanish III (4) Continuation of SPAN 150; intensive work in listening comprehension, oral communication, reading and writing, with emphasis on free expression; readings related to Hispanic culture and civilization. *Prerequisite:* SPAN 150.

SPAN 240 Spanish IV (4, FaSp) Intensive review of Spanish grammar with emphasis on four skills. Audiovisual materials and readings related to Hispanic culture and civilization. *Prerequisite:* SPAN 220.

SPAN 245 Spanish Through Social Issues in Costa Rica (4, Sm) (Costa Rica Summer Program only). Intensive review of Spanish grammar with emphasis on four skills. Audiovisual materials, guest speakers, and readings related to the history and culture of Costa Rica. *Concurrent enrollment:* SPAN 220.

SPAN 250x Spanish for Business Communication (4) Four-skills language and culture course for intermediate-high Spanish students interested in Business/Communications. Prepares students to communicate in the Spanish-speaking commercial market in a linguistically sensitive manner. Not available for credit to Spanish majors and minors. *Prerequisite:* SPAN 240.

SPAN 265 Spanish for Communication: Society and the Media (4, FaSp) Writing-intensive course designed to develop students' communicative skills through grammar review, readings on current issues and exposure to media. *Prerequisite:* SPAN 220.

SPAN 266 Spanish for Communication: Arts and Sciences (4, FaSp) Writing-intensive course designed to develop students' communicative skills through extensive reading of literary and scientific materials. *Prerequisite:* SPAN 220.

SPAN 304 Survey of Fiction (4, FaSp) A survey of Spanish and Latin American fiction from the Middle Ages to the present, acquainting students with various critical and theoretical approaches to narrative. *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 306 Survey of Drama (4, FaSp) A survey of Spanish and Latin American plays from the Middle Ages to the present, acquainting students with various critical and theoretical approaches to drama. (Duplicates credit in former SPAN 305.) *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 308 Survey of Poetry (4, FaSp) A survey of Spanish and Latin American poetry from the Middle Ages to the present, acquainting students with various critical and theoretical approaches to verse. (Duplicates credit in former SPAN 305.) *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 310 Structure of Spanish (4, FaSp) A systematic study of the structure of Spanish. Topics include fundamental aspects of the sound system; word classes; sentences and their meaning; linguistic change and variation; standard and colloquial usage. *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 311 Advanced Spanish Through Contemporary Issues: Oral Emphasis (4, Sm) (Summer sessions abroad) Advanced Spanish with emphasis on grammar and oral communication. *Recommended preparation:* SPAN 265 or SPAN 266.

SPAN 315 Advanced Grammar and Translation (4, FaSp) Contrastive study of Spanish and English structures designed to explore the similarities and differences between the two languages and to familiarize students with translation techniques. Emphasis on a variety of text types with the aim of increasing linguistic and cultural appreciation of the Spanish language. *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 316x Spanish for the Professions (4, max 8, FaSp) The language and culture of a particular area of study or profession, such as medicine and healthcare, political and social sciences, business and the law. Limited to 4 units for major or minor credit. *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 320 Iberian and Latin American Cultures: Readings on Society (4, FaSp) Introduction to the study of Iberian and Latin American cultural patterns through readings on such topics as history, gender, ethnicity, and politics. (Duplicates credit in former SPAN 360 and former SPAN 370.) *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 321 Iberian and Latin American Cultures: Readings on the Arts (4, FaSp) Introduction to the study of Iberian and Latin American cultural forms through readings on the visual arts, cinema, architecture and music. (Duplicates credit in former SPAN 360 and former SPAN 370.) *Prerequisite:* SPAN 265 and SPAN 266.

SPAN 341 Advanced Conversation and Culture (4) (Madrid Summer Program) Conversation based on study of Spanish art and architecture. Field trips.

SPAN 350 Cultural Cross-Currents of the Iberian Middle Ages (4, FaSp) Selected readings from 1040 to 1499 examining the rich cultural diversity of the Iberian Middle Ages in the symbiosis of Christian, Moslem and Jewish traditions. (Duplicates credit in former SPAN 377 and former SPAN 450.) *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 352 The Transatlantic Golden Age: New Worlds Real and Imagined (4, FaSp) Selected readings from 1500 to 1700 exploring Renaissance and baroque visions of the classical and new worlds. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 372 Modern and Contemporary Latin American Fiction (4, FaSp) Study of major trends in Latin American fiction from the 1930s to the present with a focus on narrative experimentation. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 373 Modern and Postmodern Spanish Fiction (4, FaSp) An exploration of the literary and filmic narratives of contemporary Spain focusing on the major historical and cultural movements of the 20th century. (Duplicates credit in former SPAN 378.) *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 375 Latin American Cultural and Literary Theory (4) (Enroll in COLT 375)

SPAN 380 Literature of Mexico (4) Principal writers and their works from Colonial times to the present. Non-majors may write assignments in English. *Recommended preparation:* advanced comprehension of oral and written Spanish.

SPAN 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

SPAN 391 Introduction to Contemporary Spanish Literature (USC Madrid Center) (4) Readings in contemporary Spanish literature. Includes lectures by recognized Spanish writers and scholars.

SPAN 405 History of the Spanish and Portuguese Languages (4) Development of sounds, forms, words, meanings and structures from their origins to modern Spanish and Portuguese. *Prerequisite:* SPAN 310 or SPAN 315.

SPAN 412 Spanish Rhetoric and Style (4, FaSp) Close grammatical and rhetorical analysis of a variety of text types (general, literary, technical, journalistic) as the basis for practice in advanced written and oral expression as well as translation. *Prerequisite:* SPAN 310 or SPAN 315.

SPAN 413m Social and Geographic Varieties of Spanish (4, Fa) Historical, social, and cultural elements represented in the dialectal diversity of the Spanish language; fieldwork in bilingual communities in the United States. Majors prepare assignments in Spanish, nonmajors in English. Conducted in Spanish and English. *Prerequisite:* reading knowledge of Spanish.

SPAN 420 Spanish Language Acquisition (4, FaSp) A study of the bilingual acquisition of Spanish and English by children, and of Spanish as a second language by adults; focus on linguistic, psychological and social factors. *Prerequisite:* SPAN 310 or SPAN 315.

SPAN 442 Advanced Reporting in Spanish (4) (Enroll in JOUR 442)

SPAN 455 Picaresque Itineraries: Empire and Its Discontents (4, FaSp) A study of the rise of the picaresque novel in Spain and Latin America as a medium for social, political, and cultural criticism. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 460 Don Quijote (4) A thematic, structural, and stylistic analysis of Cervantes' masterpiece. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 462 Literary Cartographies of Latin America and Spain, 1810-1898 (4, FaSp) Comparative analysis of Spanish and Latin American literatures with a focus on trans-Atlantic relations and the rise of such movements as romanticism, realism, and modernismo. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 464 Introduction to Contemporary Spanish Theatre (4) (Madrid Center only) Historical evolution of the contemporary Spanish theatre; readings of dramatic texts supported by attendance at live stage performances. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 465 Cultural Perspectives of the Iberian Peninsula: Multiple Groups and Their Interaction (4, Sm) (Madrid Summer Program) Study of cultural plurality in the Iberian Peninsula. *Recommended preparation:* SPAN 265 or SPAN 266.

SPAN 470 Literature and Media in Latin America (4) (Enroll in COLT 470)

SPAN 481 Literature and Popular Culture (4, FaSp) An examination of popular culture and literary genres with an emphasis on the evolving canons and identities of Latin America and Spain. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 482 Literature and the City (4, FaSp) An examination of the literary representations of urban spaces and cultures within the context of Iberian, Latin American, and U.S. Latino societies. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 483 Literature and Gender (4, FaSp) An examination of gender, sexuality, and power in Iberian and Latin American literatures and cultures. *Recommended preparation:* SPAN 304 or SPAN 306 or SPAN 308.

SPAN 490x Directed Research (2-8, max 8) Individual research and readings. Not available for graduate credit.

SPAN 495 Seminar for Majors and Minors (4) Two options: (1) Study of a major work or writer, a principal literary theme or movement; or (2) a selected topic in Spanish language and linguistics. *Recommended preparation:* two courses in the upper division in the same area as the seminar topic (e.g., language or literature).

SPAN 499 Special Topics (2-4, max 8)

SPAN 511 Techniques and Procedures of Teaching Spanish as a Second Language (3) Practical classroom application of language teaching methods; evaluation of available textbooks; critique of master classes.

SPAN 513 Spanish Morphology and Phonology (3, FaSp) A survey of research on the interaction between Spanish morphology and phonology in light of critical readings and discussion of selected studies as contributions to the general theory of grammar. (Duplicates credit in former SPAN 512.)

SPAN 514 Spanish Syntax (3, FaSp) A survey of Spanish syntax in the light of critical readings and discussion of selected studies and their comparative contribution to grammatical theory.

SPAN 515 Spanish Grammar in Discourse (3, FaSp) Semantic and pragmatic approaches to the analysis of the structure of Spanish sentences and discourse.

SPAN 516 Historical Aspects of Spanish and Portuguese (3, FaSp) Processes of language change in the development of the Spanish and Portuguese languages from their origin in spoken Latin to their modern stage.

SPAN 517 Spanish Applied Linguistics (3, FaSp) Modern theories of first and second language acquisition and their application to Spanish.

SPAN 518 Spanish Sociolinguistics (3, FaSp) Principles of sociolinguistics and dialectology: sociolinguistic patterns in the Hispanic languages.

SPAN 520 Critical Theory of Literary Genres (3, max 9) Introduction to the theory of modern literary genres (drama, narrative fiction, poetry).

SPAN 523 Studies in Medieval Literature (3, max 6) Representative medieval texts, emphasizing major authors, genres and literary movements, within their historical and critical contexts. *Prerequisite:* SPAN 450.

SPAN 524 Literature of the Golden Age (3, max 9) Poetry, prose narrative or drama; representative works with their historical, generic and critical contexts; issues of genre and countergenre. *Prerequisite:* SPAN 352.

SPAN 526 The Hispanic Enlightenment (3) Literary, philosophical and historical writings in the Hispanic world in relation to the general European background of the Enlightenment.

SPAN 529 Studies in 19th Century Spanish Literature (3) Studies of works, historical background and criticism of the major movements of the 19th century in Spain; romanticism, realism, naturalism and spiritualism.

SPAN 530 Modern Spanish Narrative (3) Main currents in Peninsular Spanish fiction from Baroja to Goytisolo, with emphasis on social commentary and its literary premises.

SPAN 531 Studies in 20th Century Spanish Literature (3, max 6) Fiction and essay, or drama and poetry of the generations of 1898, 1915, 1927, 1936 and contemporary Spain.

SPAN 532 20th Century Spanish Poetry (3) Main currents in Peninsular poetry from Post-Romanticism to the present day, including the poetics of Vanguardism and Neorealism.

SPAN 533 Spanish American Colonial Literature (3) Major works of Spanish American literature, from the conquest to the 18th century, with emphasis on the chronicles, epic poetry and baroque literature.

SPAN 534 Studies in 19th Century Spanish American Literature (3) Major works and literary trends in Spanish American literature from independence to the end of the 19th century.

SPAN 535 Studies in Spanish American Modernismo (3) Poetry and prose of Spanish American modernismo; emphasis on both the poetics and literary practice of key figures, including Marti, Dario, and others.

SPAN 536 20th Century Spanish American Poetry (3) Major 20th century poets and poetic movements in Spanish America; emphasis on poets such as Castellanos, Huidobro, Mistral, Neruda, Sabines, Vallejo, and others.

SPAN 537 Spanish American Narrative from Modernismo to the Sixties (3) Representative texts of narrative fiction from modernism to the sixties, emphasizing major authors such as Dario, Quiroga, Borges, Azuela, and Asturias. *Prerequisite:* SPAN 520 (narrative fiction).

SPAN 538 Literature of the "Boom" (3) Representative texts of major "boom" authors such as Cortazar, Donoso, Fuentes, Garcia Marquez, and Vargas Llosa within their critical, cultural and socio-economic contexts. *Prerequisite:* SPAN 520 (narrative fiction) or departmental approval.

SPAN 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

SPAN 594abz Master's Thesis (2-2-0) Credit on acceptance of thesis. Graded IP/CR/NC.

SPAN 595 Research Methods and Literary Criticism (3) Form, style, and mechanics of conducting, organizing and presenting research; bibliography; orientation in modern critical theory.

SPAN 596 Research Methods in Spanish Linguistics (3) Examination of various research methods as applied to the study of the Spanish language; mechanics of organizing, conducting and presenting research in Spanish linguistics.

SPAN 600 Seminar on Research in Medieval Spanish Literature (3) Evolution of critical theory and its application to research in medieval Spanish literature. *Prerequisite:* SPAN 450, SPAN 523, or departmental approval.

SPAN 601 Seminar in Golden Age Drama (3, max 6) Dramatic theory and practice in 16th and 17th century Spain; development of comedia from Torres Naharro to Calderon de la Barca.

SPAN 605 Seminar in Spanish Romanticism and Realism (3) Origin and nature of Spanish romanticism and realism in relation to their European counterparts. *Prerequisite:* SPAN 529.

SPAN 607 Seminar on Literary Movements and Ideologies in Spain (3, max 6) Examination of the arguments for including figures in the generations of 1898, 1915, 1927 and 1936 in Spain and the literary movements included in them. *Prerequisite:* SPAN 531.

SPAN 631 Seminar in the Spanish American Baroque (3) Analysis of major literary works of the Spanish American baroque in their historical, generic and critical context.

SPAN 632 Seminar in Spanish American Romanticism, Realism, Naturalism (3, max 6) Romantic, realist, or naturalist literary movements in Spanish America; emphasis on theoretical framework, cultural context of each movement and problems in Spanish American literary history. *Prerequisite:* SPAN 534.

SPAN 635 Seminar in Vanguard and Neo-Vanguard Movements in Spanish America (3) Studies of significant avant-garde movements, groups, literary magazines and texts of the period between the World Wars and recent decades.

SPAN 636 Seminar in Recent Trends in Spanish American Literature (3, max 6) Studies of drama, narrative fiction, poetry, or non-fiction prose, or a combination thereof; representative texts and critical issues raised by literary production after the 1960s. *Prerequisite:* SPAN 520 (drama, narrative fiction, or poetry).

SPAN 637 Seminar in Spanish American Non-Fictional Prose (3) Discussion of major texts of Spanish American non-fictional prose, including chronicles of discovery and conquest, the modern essay and testimonial literature.

SPAN 638 Seminar in 20th Century Spanish American Fiction (3, max 6) Studies of major authors, texts and trends in 20th century Spanish American narrative fiction; problems in the critical theory of narrative.

SPAN 651 Topics in Hispanic Literature (3, max 9) Seminars on literary movements, themes or problems.

SPAN 652 Seminar on a Major Topic in Hispanic Linguistics (3, max 9, FaSp) Analysis of selected topics of current interest as reflected primarily in the most recent literature.

SPAN 672 Seminar in Spanish Morphophonology (3, max 9, FaSp) Selected topics in Spanish morphology and phonology.

SPAN 674 Seminar on Spanish Syntax and Semantics (3, max 9, FaSp) Detailed analysis of topics in modern Spanish syntax and semantics.

SPAN 676 Seminar in Diachronic Aspects of the Hispanic Languages (3, max 9, FaSp) In-depth analysis of a particular topic in the historical development of the Hispanic languages.

SPAN 677 Seminar in Spanish Applied Linguistics (3, FaSp) Critical study and analysis of major issues related to the teaching and learning of Spanish as a first or a second language.

SPAN 678 Seminar in Hispanic Sociolinguistics (3, max 9, FaSp) Selected topics in Hispanic sociolinguistics: social and geographic language varieties, language contact, discourse analysis, synchronic variation and processes of change in Spanish.

SPAN 700 Colloquium in Hispanic Literature and Linguistics (1, max 3) Discussion and presentation of papers on a variety of topics in the areas of Hispanic language and literature. Graded CR/NC. *Prerequisite:* any 600 level Spanish seminar.

SPAN 750 Seminar on a Major Hispanic Author or Work (3, max 9) Specialized topics for small groups of students.

SPAN 790 Directed Research (1-12) Research leading to the doctorate. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

SPAN 794abcdz Doctoral Dissertation (2-2-2-2-0) Credit on acceptance of dissertation. Graded IP/CR/NC.

PORTUGUESE (PORT)

PORT 120 Portuguese I (4, FaSp) For students with no proficiency in Portuguese. Practice in listening comprehension, oral communication, elementary reading and writing.

PORT 150 Portuguese II (4, FaSp) For students with some language proficiency in Portuguese; increased emphasis on listening, comprehension, oral communication, reading, and writing. Students will be required to take a Portuguese placement exam in the Spanish and Portuguese Department.

PORT 220 Portuguese III (4, FaSp) Intensive work in listening comprehension, oral communication, reading and writing, with emphasis on free expression; readings related to Portuguese culture and civilization. *Prerequisite:* PORT 150.

PORT 250g Cultures of Brazil and Lusophone Africa (4, FaSp) Comparative study of Brazil in the context of the Lusophone (Portuguese-speaking) world, especially Portugal's former colonies in Africa. Materials drawn from literature, visual culture, music and cultural theory.

PORT 390 Special Problems (1-4) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

PORT 590 Directed Research (1-12) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

Thematic Option

College Academic Services Building 200
(213) 740-2961
(800) 872-2961
Email: vonhelm@usc.edu
www.usc.edu/thematicoption

Interim Director of College Honors Programs:
Pennelope Von Helmolt, Ph.D.

Thematic Option, the university's general education honors program, is an alternative to the usual ways freshmen meet their general education requirements. Its curriculum is arranged around four core courses which focus on the history of Western civilization through the close reading of primary literature and philosophical texts.

The program teaches students to formulate ethical questions, to analyze and understand the reasoning behind views that differ from their own, to recognize the roles that historical, political, and social forces play in matters of personal choice, and to express their views coherently in writing. Thematic Option offerings can be arranged to fit any major; students meet their general education requirements through the Thematic Option program by contract between the program and the Degree Progress Department in Student Administrative Services.

To maintain small classes and allow for extensive discussion, Thematic Option is limited to 180-200 students each year. Students must be highly motivated, with a record of academic achievement. The average Thematic Option student has cumulative SAT scores above 2200 and an "A" high school GPA. The program is rigorous and requires extensive reading and writing.

Course Requirements
Four required core courses are taken by all students. These courses are CORE 101 Symbols and Conceptual Systems; CORE 102 Culture and Values; CORE 103 The Process of Change in Science; and CORE 104 Change and the Future. Most students seeking a B.A. degree will take CORE 102 and CORE 104 during their first semester of study and CORE 101 and CORE 103 during their second semester. The sequence differs somewhat for students seeking a B.S. degree or other degrees offered outside the College of Letters, Arts and Sciences.

The core curriculum also includes eight units of writing required of all students. These units satisfy the university's writing requirement. The classes, which are accompanied by individual, bi-weekly tutorials, are offered in small sections and focus on materials taught in the core courses.

The core curriculum is supplemented by two theme courses — one in the natural sciences and the other in either the humanities or the social sciences — chosen in consultation with a Thematic Option advisor.

Information about theme courses for Thematic Option and other program offerings can be obtained from advisors in the Thematic Option office.

All students in the College of Letters, Arts and Sciences must meet the foreign language skill level requirement. All other students must meet skill level requirements for their respective degrees.

Thematic Option is available to students of all majors. Students subsequently dropping the program may have their completed core courses articulated into appropriate categories of the university's regular general education program. Specific information about which of the various general education categories can be satisfied by Thematic Option core courses is available in the Thematic Option office.

All Thematic Option students are required to seek regular academic advisement from the program advisement staff and from their major advisors.

Thematic Option CORE courses and writing classes are not available for pass/no pass registration.

Descriptions of the Thematic Option CORE courses follow.

Liberal Arts Modules

Liberal Arts Modules are a college-wide honors opportunity that bring together students with substantial training in their respective disciplines to study a common subject area using multiple approaches while participating in a cross-disciplinary dialogue.

Liberal Arts Modules provide a unique opportunity for interdisciplinary study with peers and faculty from different disciplines. The themes and topics change each semester depending on faculty participation. Students are exposed to different approaches to societal issues, gain experience working collaboratively with peers from other academic areas, apply their knowledge to new subject areas and focus sustained critical attention on disciplinary methods of inquiry.

A typical module includes four classes: three small seminars and one CORE 498 course. The program requires simultaneous enrollment in one of the three seminars and in CORE 498, for a total of 8 units.

Students with at least junior standing and a major/minor GPA of at least 3.0 are eligible to apply. Preference is given to students pursuing double majors or other major/minor combinations in the liberal arts. Students graduating with a B.A. or USC College B.S. degree who complete a module and maintain a cumulative GPA of 3.5 will have "Distinction in Liberal Arts" listed on their USC Transcript.

REQUIREMENTS (8 UNITS)

Simultaneous registration in CORE 498 and a Special Topics 499 class that is part of the Liberal Arts Module.

Thematic Approaches to Humanities and Society Minor

The interdisciplinary minor in Thematic Approaches to Humanities and Society allows students to examine a range of thematic and theoretical approaches to understanding culture and society from multiple standpoints in the humanities. The minor is rich in course and schedule options, enabling students with an interest in the humanities to continue their studies. It also includes co-curricular events and advisement from Thematic Option staff. Thematic approaches to humanities and society builds on the intellectual community developed in the Thematic Option honors program and is open to all interested students.

The minor focuses on themes like: interdisciplinary perspectives and modes of inquiry; approaches to criticism and history; reification, ideology, contextualization; and knowledge, human diversity and social relations. Students choose six 4-unit classes, including one lower division elective, one upper division Thematic Option class (CORE 301 Modes of Inquiry), and four upper division electives. Students also complete a 2-unit reading salon (CORE 200 Liberal Arts Reading Salon).

REQUIREMENTS, LOWER DIVISION (CHOOSE ONE, 4 UNITS)

CLAS 150, CLAS 151, CORE 102, HIST 101, HIST 102, PHIL 115, REL 132

COURSE REQUIREMENTS (6 UNITS)		UNITS
CORE 200	Liberal Arts Reading Salon	2
CORE 301	Modes of Inquiry	4

REQUIREMENTS, UPPER DIVISION (16 UNITS)

Enroll in four of the following, at least one from List A, one from List B and not more than one from List C. Not more than two may come from any one department. Courses must be chosen in consultation with a Thematic Option advisor.

LIST A

Early: CLAS 310, CLAS 320, CLAS 333, CLAS 470, EALC 340, EALC 345, EALC 350, EALC 355, EALC 365, PHIL 345, REL 311, REL 315, REL 317

Modern: COLT 426, COLT 445, EALC 332, EALC 335, EALC 342, EALC 352, EALC 354, FREN 446, GERM 370, GERM 372, PHIL 337, PHIL 355, PHIL 437, REL 340, SLL 330, SLL 344

LIST B

Humanities and Society: COLT 448, COLT 475, ENGL 473, ENGL 474, FREN 370, ITAL 340, REL 366, REL 462, SLL 345, SLL 348

Critical Approaches: CLAS 380, COLT 391, COLT 401, COLT 454, ENGL 472, ENGL 479, ENGL 480, LING 466, PHIL 361, PHIL 445

LIST C

Social Science Approaches: ANTH 372, GEOG 325, HIST 300, HIST 329, IR 325, POSC 381, POSC 476, SOCI 350, SOCI 360

Courses of Instruction

THEMATIC OPTION (CORE)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

CORE 101 Symbols and Conceptual Systems: Thematic Option Honors Program (4, FaSp) Study of the structures through which we shape our experience in religion, philosophy, literature, music, and the visual arts, and of competing theories of interpretation. Students may not take this course on a P/NP basis.

CORE 102 Culture and Values: Thematic Option Honors Program (4, Fa) Systematic reasoning about values and ways of living; close reading of major texts within the Western tradition; Biblical and classical through contemporary sources. Students may not take this course on a P/NP basis.

CORE 103 The Process of Change in Science: Thematic Option Honors Program (4, FaSp) Critical problems in the development of scientific thought, studied as vehicles for understanding the content and structure of the sciences. Specific subject matter in selected scientific disciplines will be presented. Students may not take this course on a P/NP basis.

CORE 104 Change and the Future: Thematic Option Honors Program (4, FaSp) Analysis of historical change; social and political theory and revolutionary thought; introduction to competing images of future states of affairs; the continuing process of change. Students may not take this course on a P/NP basis.

CORE 111 Writing Seminar I: Thematic Option Honors Program (4, Fa) Students may not take this course on a P/NP basis.

CORE 112 Writing Seminar II: Thematic Option Honors Program (4, Sp) Students may not take this course on a P/NP basis.

CORE 195 Summer Seminar (3, Sm) An honors course for high school students in summer residence; each section focuses on a topic in the arts or humanities, social or natural sciences.

CORE 200 Liberal Arts Reading Salon (2, FaSp) Critical readings of a series of texts in the liberal arts designed to promote discussion of important themes, theoretical approaches, research directions, and interdisciplinary connections. Graded CR/NC.

CORE 301 Modes of Inquiry (4, FaSp) Modern tools of cultural and discursive analysis which seek to demystify "the natural," as it appears in the formation of cultures, their institutions, and individuals.

CORE 495 Senior Seminar (4, max 12, FaSp) Intensive exploration of a selected theme, problem, process, or period. *Prerequisite:* completion of 4 CORE classes and 8 units of writing.

CORE 498 Honors in Liberal Arts (4, FaSp) Advanced interdisciplinary course on the development of a general theme or topic. Critical analysis of the relation between modes of inquiry and objects of study. Students much be simultaneously enrolled in a selected special topics 499 course that has been approved as part of the College's Liberal Arts Modules project.

CORE 499 Special Topics (2-4, max 12) Intensive interdisciplinary exploration of a selected theme, problem process, or period.

CORE 601 Teaching Analytical Writing Through Readings in the Humanities (1, max 4, Fa) Theories and practices in the university-level teaching of close-reading and analytical writing, using texts central to Western tradition. Graduate student professionalism through topical workshops and discussions. Open to assistant lecturers and teaching assistants only. Graded CR/NC.

The Writing Program

Practice and Instructional Center 208
(213) 740-1980
Email: writprog@usc.edu
www.usc.edu/dept/LAS/writing

Director: John Holland

The goal of Writing Program courses is to develop the critical thinking, reading and writing skills that are necessary for success in all college work. Small classes and tutorials in the Writing Center enable students to receive frequent responses to their writing and highly individualized composition instruction. Students must complete WRIT 140 (or its equivalent) and an advanced writing course, WRIT 340, to meet the university's writing requirement. In all of its courses, the Writing Program employs a rhetorically-based process approach to writing instruction.

Lower Division Requirement

WRIT 140 Writing and Critical Reasoning is offered in affiliation with courses from the "Social Issues" category of the General Education program. WRIT 140 focuses on the rhetorical principles and techniques necessary for successful college-level writing. Special attention is paid to critical thinking and reading, sentence-level fluency, research techniques, and the elements of academic argument and reasoning. WRIT 140 will not satisfy the university's writing requirement if taken on a Pass/No Pass basis. In lieu of WRIT 140, certain students from the Schools of Architecture, Engineering and Music are permitted to take WRIT 130 Analytical Writing, a non-affiliated course with similar curricular objectives.

Advanced Writing Requirement

All students at USC, except those who satisfy their general education requirements through the Thematic Option Program, must complete WRIT 340 Advanced Writing, an upper division course designed to help students write on topics related to their disciplinary or professional interests. Students usually enroll in WRIT 340 in the junior year, and may not take the course earlier than their sophomore year. Different schools within the university offer sections of this course. Students should consult their major departments to determine which version of WRIT 340 best complements their program of study. WRIT 340 will not satisfy the university's writing requirement if taken on a Pass/No Pass basis.

All classes that meet the university's advanced writing requirement teach students to write clear, grammatical, well-structured prose; to discover and convey complex ideas critically; and to appreciate the nuances of effective argumentation. The principal aim of the requirement is to develop a student's capacity to formulate thoughtful and compelling writing for specific academic, professional and public audiences.

Preparatory Course Work

Some students are better served by taking a preparatory course before they enroll in WRIT 140. Entering freshmen who score below a specified level on the verbal portion of the SAT take the University Writing Examination. Based on the results of this examination, certain students enroll in WRIT 120 Introduction to College Writing or WRIT 121 Introduction to College Writing in a Second Language during their first semester at USC.

International students take the University Writing Examination after having completed any course work required by the American Language Institute.

Transfer Credit

Students may complete the lower division portion of the writing requirement by completing course work equivalent to Composition II at another institution prior to enrolling at USC. Equivalent transfer credit is determined by the university's articulation officer. The advanced writing requirement must be completed at USC.

Time Limits

Students should complete the lower division writing course requirement by the end of their first year at USC and must complete it before they enroll in their sixty-fifth unit. Transfer students who have not completed the lower division requirement prior to entering USC should enroll in WRIT 140 during their first semester at USC, and must enroll in WRIT 140 no later than their nineteenth unit (second semester) at USC.

Courses of Instruction

WRITING (WRIT)

The terms indicated are *expected* but are not *guaranteed*. For the courses offered during any given term, consult the *Schedule of Classes*.

WRIT 095x Writing Tutorial (1, FaSpSm) Individualized instruction in writing to support instruction in WRIT 130 or WRIT 140. Graded CR/NC. Not available for degree credit. *Concurrent enrollment:* WRIT 130 or WRIT 140.

WRIT 120 Introduction to College Writing (4, FaSp) Intensive instruction and practice in the writing process. Focuses upon the formal conventions and conceptual expectations of college writing, with emphasis upon the grammatical, stylistic, and rhetorical techniques required in successful writing. Graded CR/NC. Limited to and required of students who score below specified level on the USC Writing Examination.

WRIT 121 Introduction to College Writing in a Second Language (4, FaSp) Intensive instruction and practice in the writing process for non-native speakers of English. Focuses on the formal and conceptual conventions of college writing, with emphasis upon the grammatical, stylistic, and rhetorical techniques required in successful writing. Graded CR/NC. Limited to and required of students who score below specified level on the USC Writing Examination.

WRIT 130 Analytical Writing (4, Sp) Focuses on analytical and argumentative writing skills requisite to academic and professional writing. Emphasizes logical analysis of texts and other data, effective use of evidence, ethical argumentation, and stylistic and grammatical fluency. Enrollment limited to specified groups of students. Students must achieve a satisfactory score on the verbal portion of the SAT, the USC Writing Examination, or credit for WRIT 120 or WRIT 121 before enrolling in WRIT 130.

WRIT 140 Writing and Critical Reasoning (4, FaSpSm) Focuses on analytical and argumentative writing skills requisite to academic and professional writing. Emphasizes logical analysis of texts and other data, effective use of evidence, ethical argumentation, and stylistic and grammatical fluency. Requires concurrent enrollment with an affiliated general education course in the social issues category. Students must achieve a satisfactory score on the verbal portion of the SAT, the USC Writing Examination, or credit in WRIT 120 or WRIT 121 before enrolling in WRIT 140.

WRIT 340 Advanced Writing (3-4, FaSpSm) Instruction in writing for various audiences on topics related to a student's professional or disciplinary interests, with some emphasis on issues of broad public concern. *Prerequisite:* WRIT 130 or WRIT 140.

WRIT 501ab Theory and Practice in Teaching Expository Writing (1-1, FaSp) Pedagogical application of rhetorical and linguistic theory to teaching university-level expository writing. Accompanies supervised teaching. Limited to assistant lecturers and teaching assistants. Graded CR/NC.