Accountancy (ACCTG)
In the College of Business Administration

LOWER DIVISION COURSES

ACCTG 201. Financial Accounting Fundamentals (3)
Theory and practice of accounting applicable to recording, summarizing, and reporting of business transactions for external reporting and other external uses. Asset valuation; revenue and expense recognition; various asset, liability, and capital accounts. (Formerly numbered Accountancy 220.)

ACCTG 202. Managerial Accounting Fundamentals (3)
Prerequisites: Minimum grade of C in Accountancy 201. Proof of completion of prerequisite required: Copy of transcript.
Selection and analysis of accounting information for internal use by managers. Using financial information for planning and control purposes. (Formerly numbered Accountancy 220.)

ACCTG 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Extended for Undergraduates)

ACCTG 321. Integrative Accounting Topics I (6)
Prerequisites: Admission to Accountancy major, minor, or certificate. Minimum grade of C in both Accountancy 201 and 202. Completion of General Education requirement in Communication and Critical Thinking. Proof of completion of prerequisites required: Copy of transcript.
Introduction to taxation and tax considerations in selecting the form of organization. Includes topics typically contained in Intermediate Accounting I, Managerial and Cost Accounting, Accounting Information Systems, and Federal Income Tax courses. Not open to students with credit in Accountancy 325 and 326. Maximum credit six units for any combination of Accountancy 318, 319, 321.

ACCTG 322. Integrative Accounting Topics II (6)
Prerequisites: Minimum grade of C in Accountancy 321. Credit or concurrent registration in Information and Decision Systems 390W. Proof of completion of prerequisites required: Copy of transcript.
Financial and tax research methods, taxation topics, accounting information systems, financial reporting issues, preparation and use of financial statement information, and accounting issues of not-for-profit organizations. Includes material typically contained in Accounting Information Systems, Accounting for Not-for-Profit Organizations, Federal Income Tax, and Intermediate Accounting II.

ACCTG 325. Intermediate Managerial and Tax Accounting (3)
Prerequisites: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.
Theories, practices, and concepts needed to satisfy decision making requirements of internal users; tax considerations to managerial decision making. May not be taken for credit by accounting majors.

ACCTG 326. Intermediate Financial Accounting (3)
Prerequisites: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.
Theories, practices, and concepts needed to satisfy the decision making requirements of external users; financial reporting for enterprises engaged in international trade of business. May not be taken for credit by accounting majors.

ACCTG 409. Field Study in Taxation (1) Cr/NC
Prerequisites: Accountancy 321. Income tax preparation in the field. Follows procedures of IRS VITA Program. IRS instruction followed by faculty supervised fieldwork. (Student must be available for special IRS tax school.)

ACCTG 421. Integrative Accounting Topics III (6)
Prerequisites: Information and Decision Systems 390W; Finance 323; minimum grade of C in Accountancy 322. Proof of completion of prerequisites required: Copy of transcript.
Audit of financial statements, consolidated financial reporting issues, and advanced financial accounting topics. Includes material typically contained in Auditing and Advanced Accounting.

ACCTG 422. Integrative Accounting Topics IV (3)
Prerequisites: Information and Decision Systems 301, 390W; minimum grade of C in Accountancy 322. Credit or concurrent registration in Accountancy 421. Proof of completion of prerequisites required: Copy of transcript.
Accounting information for managerial performance evaluation, advanced financial reporting issues, and international accounting. Include material typically contained in International Accounting, Advanced Accounting, and Management Control Systems.

ACCTG 496. Selected Topics in Accountancy (1-4)
Prerequisites: Consent of department chair.
Selected areas of concern in accountancy. May be repeated with new content with consent of department chair. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

ACCTG 498. Investigation and Report (1-3)
Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with accounting under the direction of one or more members of the accounting staff. May be repeated with new content. Maximum credit six units.

ACCTG 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ACCTG 501. Advanced Financial Accounting (3)
Prerequisites: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. Proof of completion of prerequisites required: Copy of transcript.
Advanced financial accounting topics. Partnerships, consolidations, foreign currency transactions and financial statements, accounting for derivatives and hedging, accounting for bankruptcy and reorganizations.

ACCTG 502. Advanced Managerial Accounting (3)
Prerequisites: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. Proof of completion of prerequisites required: Copy of transcript.
Use of accounting information systems for managerial decision making. Introduction to decision-making situations which use accounting information for full or partial resolution. Consideration of uncertainty, decision theory and specific decision contexts.

ACCTG 503. Federal Taxation of Individuals (3)
Prerequisites: Accountancy 201 and 202. Approved upper division business major, business minor, or other approved major. Proof of completion of prerequisites required: Copy of transcript.
Taxation of individuals, including income, deductions, credits, social security taxes, and property transactions.

ACCTG 505. Fraud Examination (3)
Prerequisites: Accountancy 421 or 626.
Fraud examination to include techniques and technologies for interviewing, document examination, public records research, and financial statement analysis. Skills and tools for auditors, consultants, tax professionals, managers.
ACCTG 508. Accounting for Not-For-Profit Organizations (3)
Prerequisites: Minimum grade of C in Accountancy 322. Proof of completion of prerequisite required: Copy of transcript. Principles of fund accounting useful in state and local governmental units, hospitals, colleges, and universities. Comparisons with commercial accounting emphasized. Includes study of budgetary accounting, appropriations, encumbrances, internal checks and auditing procedures.

ACCTG 596. Contemporary Topics in Accounting (1-3)
Prerequisites: Business major approved by the College of Business Administration and consent of instructor. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser. Refer to the Graduate Bulletin.

GRADUATE COURSES

Administration, Rehabilitation and Postsecondary Education (ARP)

In the College of Education

LOWER DIVISION COURSES

ARP 201. Introductory Statistics and Research Design for Education (3) [GE]
Prerequisites: Intermediate algebra, satisfaction of the Entry-Level Mathematics requirement, and consent of instructor. Understanding, interpreting, and applying educational research. Basic research design, sampling, distributions, reliability, validity, descriptive statistics, inferential statistics, hypothesis testing, tests of significance, and evaluating an education research report. Priority given to students in the Bachelor of Vocational Education program. Students with credit or concurrent registration in the following lower division courses will be awarded a total of four units for the two (or more) courses: Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250.

ARP 205. Exploring Leadership (3)
Understanding, applying and critiquing leadership theories, examining personal strengths, values, goals, and philosophy of leadership.

ARP 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

ARP 380. Principles of Adult and Vocational Education (3)
Principles, practices, scope, and functions of adult and vocational education.

ARP 381. Developing Adult and Vocational Education (3)
Needs assessment, task analysis, formulation of objectives, lesson plans, instructional techniques, and evaluation in adult and vocational settings.

ARP 382. Directed Teaching (2-4) Cr/NC
Prerequisites: Administration, Rehabilitation and Postsecondary Education 380, 381, or 565. Systematic observation, participation, and teaching under supervision in an occupational subject matter area. Application to take this course must be made in preceding semester.

ARP 397. Problems in Education (Credit to be arranged) (Offered only in Extension)
Prerequisites: Consent of instructor. Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor’s degree.

ARP 403. Field laboratory in Leadership: Campus and Other Postsecondary Settings (1)
Prerequisite: Administration, Rehabilitation and Postsecondary Education 205. Laboratory on campus and at other postsecondary settings to integrate academic work with experiences on campus and in post-secondary settings.

ARP 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

ARP 499. Special Study (1-3)
Prerequisites: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently. Individual study. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

ARP 565. Psychological Foundations of Adult and Vocational Education (3)
Prerequisites: Administration, Rehabilitation and Postsecondary Education 380 or 381. Learning processes of adult and vocational education students in relationship to theories of learning and methods of teaching.

ARP 568. Adult and Vocational Education in Contemporary Society (3)
Prerequisites: Administration, Rehabilitation and Postsecondary Education 565. Contemporary adult and vocational education in the U.S. Learning opportunities and environments, instructional delivery systems, and adult learning models.

ARP 596. Topics in Administration, Rehabilitation and Postsecondary Education (1-3)
Selected topics in administration, rehabilitation and postsecondary education. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES

Refer to the Graduate Bulletin.

Aerospace Engineering and Engineering Mechanics (AE) (EM)

In the College of Engineering

LOWER DIVISION COURSE IN AEROSPACE ENGINEERING (A E)

A E 123. The Aerospace Engineer (1)
Introduction to professional aerospace engineering. Emphasis on aeronautics and astronautics.
Aerospace Engineering and Engineering Mechanics

UPPER DIVISION COURSES IN AEROSPACE ENGINEERING
(Intended for Undergraduates)

A E 301. Low Speed Aerodynamics (3)
Prerequisites: Credit or concurrent registration in Engineering Mechanics 340.
Subsonic flow, airfoil and wing theory, experimental characteristics of wing sections, high lift devices.

A E 302. High Speed Aerodynamics (3)
Prerequisites: Aerospace Engineering 301 and Mechanical Engineering 352.
Supersonic flow, two- and three-dimensional compressible flow, wings in compressible flow, two- and three-dimensional method of characteristics, transonic flow.

A E 303. Experimental Aerodynamics (2)
One lecture and three hours of laboratory.
Prerequisites: Engineering Mechanics 341 and credit or concurrent registration in Aerospace Engineering 301.

A E 310. Aerospace Structural Analysis (3)
Prerequisites: Civil Engineering 301.
Methods of static structural analysis of problems encountered in flight of aerospace vehicles.

A E 320. Aerospace Flight Mechanics (3)
Prerequisites: Engineering Mechanics 220 and Engineering 280.
Two-body orbital mechanics including geocentric orbits and interplanetary transfers.

A E 403. Aerospace Engineering Senior Project (3)
One lecture and six hours of laboratory.
Design and build an aerospace project, conduct experimental measurements, perform analyses of measured data.

A E 410. Aerospace Structural Dynamics (3)
Prerequisites: Credit or concurrent registration in Aerospace Engineering 310.
Methods of structural dynamic analysis of problems encountered in aerospace vehicles.

A E 430. Aircraft Propulsion Systems (3)
Prerequisites: Aerospace Engineering 302 or Mechanical Engineering 351.
Theory and performance characteristics of aircraft propulsion systems including reciprocating engines, turboprop, ramjet, etc.

A E 440. Aircraft Stability and Control I (3)
Prerequisites: Aerospace Engineering 303.
Static stability and control, general equations of unsteady motion, stability derivatives, stability of uncontrolled motion, response of aircraft to actuation of controls.

A E 460A. Aerospace Engineering Applications (3)
One lecture and five hours of design activity.
Prerequisites: Aerospace Engineering 302, 303, 310.
Student projects in aerospace design.

A E 460B. Aerospace Engineering Applications (2)
Six hours of laboratory.
Prerequisites: Aerospace Engineering 460A.
Student projects in aerospace design.

A E 496. Advanced Aerospace Engineering Topics (1-3)
Prerequisites: Consent of instructor.
Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Aerospace Engineering 496 and 499.

A E 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units for any combination of Aerospace Engineering 496 and 499.

UPPER DIVISION COURSES IN AEROSPACE ENGINEERING
(Also Acceptable for Advanced Degrees)

A E 520. Intermediate Aerospace Flight Mechanics (3)
Prerequisites: Aerospace Engineering 320.
Rigid-body dynamics with applications in spacecraft attitude dynamics.

A E 530. Rocket and Space Propulsion (3)
Prerequisites: Aerospace Engineering 430.
Equilibrium combustion thermodynamics. Performance of rocket propelled vehicles. Rocket propulsion fundamentals. Topics in chemical (solid and liquid) and electrical propulsion systems.

A E 540. Aircraft Stability and Control II (3)
Prerequisites: Aerospace Engineering 440.
Dynamic stability and control of rigid aircraft; general equations of unsteady motion, stability derivatives, perturbed state thrust forces and moment, special problems in dynamic stability and response.

A E 550. Viscous Flow (3)
Prerequisites: Consent of instructor.
Modern developments in aerospace engineering. May be repeated with new content. See Class Schedule for specific content. Maximum credit of six units for any combination of Aerospace Engineering 496, 499, and 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

LOWER DIVISION COURSES IN ENGINEERING MECHANICS (E M)

E M 200. Statics (3)
Prerequisites: Physics 195 and credit or concurrent registration in Mathematics 151.
Proof of completion of prerequisites required: Copy of transcript or enrollment confirmation.
Force systems, equilibrium, structures, distributed forces, friction, virtual work, moments of inertia, vector algebra.

E M 220. Dynamics (3)
Prerequisites: Engineering Mechanics 200 with a grade of C or better.
Proof of completion of prerequisite required: Copy of transcript.
Kinetics of a particle; central force motion; systems of particles; work and energy; impulse and momentum; moments and products of inertia; Euler’s equations of motion; vibration and time response; engineering applications.

E M 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES IN ENGINEERING MECHANICS
(Intended for Undergraduates)

E M 340. Fluid Mechanics (3)
Prerequisites: Engineering Mechanics 220; and credit or concurrent registration in Engineering 280.
Fluid statics. Laminar and turbulent flow of liquids and gases in pipes, nozzles, and channels. Dimensional analysis and modeling. Drag forces on moving or immersed objects.
E M 341. Fluid Mechanics Laboratory (1)  
Three hours of laboratory.  
Prerequisites: Credit or concurrent registration in Engineering Mechanics 340.  

E M 496. Advanced Engineering Mechanics Topics (1-3)  
Prerequisites: Consent of instructor.  

E M 499. Special Study (1-3)  
Prerequisites: Consent of instructor.  

UPPER DIVISION COURSES IN ENGINEERING MECHANICS  
(Also Acceptable for Advanced Degrees)

E M 510. Finite Element Methods in Aerospace Structures (3)  
Prerequisites: Aerospace Engineering 410.  
Static and dynamic analysis of aerospace structures utilizing finite element methods.

E M 530. Composite Structural Analysis (3)  
Prerequisites: Engineering 280 and Civil Engineering 301.  
Strength of composite materials; lamination theory; strength analysis of laminates; bending, buckling, and vibration of composite plates.

E M 596. Advanced Engineering Mechanics Topics (1-3)  
Prerequisites: Consent of instructor.  
Modern developments in engineering mechanics. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units for any combination of Engineering Mechanics 496, 499, and 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES IN AEROSPACE ENGINEERING  
AND ENGINEERING MECHANICS  
Refer to the Graduate Bulletin.

Aerospace Studies (A S)  
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

A S 91A-91B. Leadership Laboratory (1-1) Cr/NC  
One hour and fifty minutes of activity per unit.  
Prerequisites for AFROTC cadets: Concurrent registration in Aerospace Studies 100A for Aerospace Studies 91A; concurrent registration in Aerospace Studies 100B for Aerospace Studies 91B.

Demonstrated to prepare junior cadets for positions as leaders and managers of the cadet corps and a commission in the US Air Force. Application of principles of motivation, time management, organizational behavior, and participative group management in solving problems. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the professor of aerospace studies. Credit earned in this course is not applicable to a bachelor's degree.

A S 92A-92B. Leadership Laboratory (1-1) Cr/NC  
One hour and fifty minutes of activity per unit.  
Prerequisites for AFROTC cadets: Concurrent registration in Aerospace Studies 200A for Aerospace Studies 92A; concurrent registration in Aerospace Studies 200B for Aerospace Studies 92B.

Designed to prepare junior cadets for positions as leaders and managers of the cadet corps and a commission in the US Air Force. Application of principles of motivation, time management, organizational behavior, and participative group management in solving problems. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the professor of aerospace studies. Credit earned in this course is not applicable to a bachelor's degree.

A S 93A-93B, Leadership Laboratory (1-1) Cr/NC  
One hour and fifty minutes of activity per unit.  
Prerequisite: Concurrent registration in Aerospace Studies 300A for Aerospace Studies 93A; concurrent registration in Aerospace Studies 300B for Aerospace Studies 93B.

Designed to demonstrate leadership and management skills, problem-solving skills, and exercise group planning, organizing and coordinating activities. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the professor of aerospace studies. Credit earned in this course is not applicable to a bachelor's degree.

A S 94A-94B. Leadership Laboratory (1-1) Cr/NC  
One hour and fifty minutes of activity per unit.  
Prerequisite: Concurrent registration in Aerospace Studies 400A for Aerospace Studies 94A; concurrent registration in Aerospace Studies 400B for Aerospace Studies 94B.

Demonstration laboratory designed to develop leadership and management skills, problem-solving skills, and exercise group planning, organizing and coordinating activities. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the professor of aerospace studies. Credit earned in this course is not applicable to a bachelor's degree.

A S 100A-100B. Foundation of the United States Air Force (1-1)  
Meets one hour per week.  
Prerequisite for AFROTC cadets: Concurrent registration in Aerospace Studies 91A for Aerospace Studies 100A; concurrent registration in Aerospace Studies 91B for Aerospace Studies 100B.

Study of air and space power through a historical perspective. Techniques for improving communication, discussion of Air Force heritage, leadership basics. Ethics, values, problem solving, and Air Force core values.

A S 200A-200B. Evolution of USAF Air and Space Power (1-1)  
Meets one hour per week.  
Prerequisite for AFROTC cadets: Concurrent registration in Aerospace Studies 92A for Aerospace Studies 200A; concurrent registration in Aerospace Studies 92B for Aerospace Studies 200B.

Study of air and space power through a historical perspective. Techniques for improving communication, discussion of Air Force heritage, leadership basics. Ethics, values, problem solving, and Air Force core values.

A S 233. Field Training Unit (2-3) Cr/NC  
Required for advanced cadets, military orientation and flight familiarization. Credit granted for four- or six-week field training camp on basis of individual student application with approval of Aerospace Studies department chair.

UPPER DIVISION COURSES  
(Intended for Undergraduates)

A S 300A-300B. Air Force Leadership Studies (3-3)  
Air Force leadership and management principles. Responsibility and authority of an Air Force officer, subordinate leadership, ethics, standards of conduct, and officer values. Improving writing, briefing skills, counseling, and feedback process.
A 5 400A-400B. National Security Affairs/Preparation for Active Duty (3-3)
Role of professional officer in democratic society, socialization within armed services, requisites for adequate national security forces. Political, economic, and social constraints on national defense structure and impact of technological and international developments on defense policy making.

A 5 499. Special Study (1-3)
Prerequisites: Consent of Aerospace Studies department chair. Individual study. Maximum credit six units.

Africana Studies (AFRAS)
In the College of Arts and Letters

LOWER DIVISION COURSES

AFRAS 101A. Introduction to Africana Studies: Social and Behavioral Sciences (3) [GE]
Interdisciplinary introduction of African American thought and behavior. Subject areas include social systems, economic empowerment, self-development, family dynamics, use of power, cognitive styles, interethnic communication and international relations. Review of relevant literature in social and behavioral sciences.

AFRAS 101B. Introduction to Africana Studies: Humanities (3) [GE]
Interdisciplinary introduction to African American history, literature, other arts and religion. Subject areas include methodology and theoretical perspectives of Africana studies.

AFRAS 120. Composition (3) [GE]
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See the Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97, or notification from the Department of Rhetoric and Writing Studies.
Designed to develop and enhance composition and reading skills. Focus on writing skills that contribute to academic growth and development. Not open to students with credit in Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

AFRAS 140. Oral Communication (3) [GE]
Practice in speaking, critical listening, reasoning and organizing. Theory and techniques of communications used to evaluate the effect they have on the lives of Blacks and others. Not open to students with credit in Chicana and Chicano Studies 111A or Communication 103.

AFRAS 170A-170B. Afro-American History (3-3) [AI]
American history from a Black perspective. These courses satisfy the graduation requirement in American Institutions.

AFRAS 200. Intermediate Expository Writing and Research Fundamentals (3) [GE]
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
Development of intermediate expository writing skills and application of practical research principles. Not open to students with credit in Chicana and Chicano Studies 200, English 200, General Studies 260D, Linguistics 200, or Rhetoric and Writing Studies 200.

AFRAS 240. Africana Intellectual Thought (3) [GE]
Major theories and theory-makers and production of a global black intellectual tradition. Thoughts and writings of major black leaders as they relate to liberation, struggle, resistance, and cultural production.

AFRAS 250. Psychology of Blackness (3)
Facts, principles, and concepts which are basic to understanding human behavior. An analysis of the psychological motivations and behavioral responses of and toward Afro-Americans.

AFRAS 260. Africana Literary Study (3) [GE]
Oral and written literature produced by people of African descent. How Africans use language to communicate their history and culture. Basic literary vocabulary, techniques, and theories for the non-specialist.

AFRAS 270. African Foundations of Africana Studies (3) [GE]
African foundations of Africana studies from contemporary issues to forces that shaped Africa and its Diaspora.

AFRAS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

AFRAS 320. Political Economy of Race and Class (3) [GE]
Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Political economy of urban growth, development, and redevelopment examined in historical and contemporary contexts. Focus on race and class inequality and conflict; effectiveness of public and private sector decisions and programs; evolution of African American urban poor and their communities.

AFRAS 321. Black Political Participation in America (3) [GE]
Prerequisites: Africana Studies 101A or 170A or 170B. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Afro-American political life and development in the United States. Interaction between Afro-Americans and various actors, institution processes, and policies of the American system of politics and governance.

AFRAS 322. African American Political Thought (3) [GE]
Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Political and social thought underlying principles, goals, strategies developed by African Americans in struggle for social development and human rights. Focus on twentieth century thought.

AFRAS 325. Public Policy and Afro-American Community (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Impact of public policy on Afro-American community: theory and practice of policy formulation, implementation, evaluation, and modification for specific problems in Afro-American community; roles of governmental officials, administrative arrangements, organizational processes, and community groups in policy making.

AFRAS 330. Black Child Development (3)
Attitudes, needs and problems of the Afro-American child with emphasis on new approaches and insights into the development of positive changes for the child's growth and development.

AFRAS 331. The Black Family (3)
Structure and functions of the Black family in contemporary American society.

AFRAS 332. Black Women: Myth and Reality (3)
Prerequisites: Africana Studies 101A or 101B.
Images of Black women in America and how those images have been distorted.
AFRAS 341. Cultural Patterns and African American Identity (3) [GE]
Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Impact of social institutions on African American identity and cultural patterns.

AFRAS 351. Black Religions and Spirituality (3)
Prerequisite: Africana Studies 101B.
Major Black religious and spiritual responses and expressions in Africa and Black diaspora, including creation of institutions to support and advance religious and spiritual matters.

AFRAS 360. Communications and Community Action (3)
Prerequisites: Africana Studies 140 (field assignments are a major part of this course).
Application of the basic theories of communication through field projects. Study of the communication problems that exist between sociopolitical groups and the media.

AFRAS 362. Rhetoric of Black America (3)
Prerequisites: Three units of Afro-American history or communications.
Rhetoric of Black Americans from David Walker to the present, role rhetoric has played in history of Black people and an analysis of Black audience in terms of the Black experience.

AFRAS 363. Sociocultural Analysis of Black Languages (3)
Prerequisites: Three units in Africana Studies.
Social and cultural functions of Black languages, verbal and nonverbal, in Afro-American life, and their profound impact on larger society. Also, a probe into issues concerning validity of Black English.

AFRAS 365A. African American Literature to 1900 (3) [GE]
Prerequisites: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Eighteenth and nineteenth century writing by African American authors. Issues of literary form, canon formation, and sociopolitical impact of the literature upon African American culture.

AFRAS 365B. African American Literature After 1900 (3) [GE]
Prerequisites: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Writing by African American authors after 1900. Issues of literary form, canon formation and sociopolitical impact of the literature upon African American and American culture of the twentieth and twenty-first centuries.

AFRAS 380. Blacks in the American Justice System (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Interpretation and application of constitutional principles and judicial decisions to political and social problems faced by Afro-Americans.

AFRAS 385. African American Music (3) [GE]
Prerequisites: Africana Studies 101B or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
African American music from its African roots to present. Consideration of musical styles, events, significant contributors as well as role of sociocultural values in development of music.

AFRAS 420. Afro-Americans and the Politics of Urban Education (3) [GE]
Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Struggle against Afro-American subordination and complexities, contradictions, and dilemmas of formulating and implementing quality education and equal opportunity policies. Interaction between politics and education during eras of machine, reform, and postreform politics.

AFRAS 421. Black Urban Experience (3) [GE]
Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Major social science literature of international Black urban experience. Behavior, culture, and oppressions unique to urban environment.

AFRAS 422. Modern Civil Rights Movement (3)
Prerequisites: Africana Studies 101A or 101B.
Key events, strategies, and theoretical debates that emerged from struggle for black equality during modern civil rights movement in the United States from 1945 to present.

AFRAS 423. Black Nationalism (3)
Prerequisite: African Studies 101A or 101B.
Black nationalism in the world, with emphasis on comparative analysis of writings of leading nationalist (and Pan-Africanist) thinkers and theorists.

AFRAS 445. Ethnicity and Social Psychology (3) [GE]
Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Major social psychological theories specifically focusing on how these theories relate to minority attitude/value formation and group behavior. Strategies for resolving social issues.

AFRAS 455. Africana Class, Gender, and Sexualities (3) [GE]
Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Intersection of race, class, gender, and sexualities within Africana culture and experience and impact on Africana world-view.

AFRAS 460. Black Images in Western Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
How image of the Black has been portrayed in Western (white) literature and attitudes and images of non-Black writers towards Blacks.

AFRAS 462. The Harlem Renaissance (3)
Black literature of the 1920s from literary, historical, sociological and cultural perspectives.

AFRAS 463. Black Literatures of the World (3) [GE]
Prerequisites: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

AFRAS 464. Caribbean Literature (3) [GE]
Prerequisites: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.
Political, religious, and musical paradigms in writing from 1900 to present. Politico-religious movements and related art forms (i.e. Ras-tafarian Reggae, Dub Poetry).

AFRAS 465. Africa in Literature and Film (3) [GE]
(Same course as French 465)
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

AFRAS 470. Comparative History: Afro-American and African Heritage (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Conceptual framework of African history and a comparative study of Afro-American institutions.
AFRAS 471A. Black History, 1492-1877 (3)  
Afro-Americanization and African survivals in the U.S.; origins and development of slavery; growth of free Black communities; antislavery movements and Black nationalism; slavery’s end and dawn of freedom.

AFRAS 471B. Twentieth Century Black History (3)  
History of social movements and institutions from 1890 to the present. Focus on both leadership and life of the masses.

AFRAS 472. Comparative Slavery (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Comparative history of enslavement of Blacks throughout western hemisphere. Uses United States as baseline. Further comparisons to ancient Mediterranean, African, and Middle Eastern societies; Nazi Germany; contemporary Asian cultures.

AFRAS 476. History and Culture of Hip Hop (3)  
Prerequisite: Africana Studies 101A or 101B. Genesis of hip hop as a worldwide culture, with attention to major Africana historical, political, sociological, cultural, and aesthetic precursors.

AFRAS 480. History of Afro-American Jazz (3)  
Prerequisites: Africana Studies 101B. Historical development of jazz from its beginnings to the present, based on the ability to identify people, discuss musical styles and events, and to relate these factors to the life of the times.

AFRAS 481. Africana Aesthetics (3) [GE]  

AFRAS 485. Blacks in the Arts (3)  
Prerequisites: Africana Studies 101B. Academic and artistic perspectives on Black participation in and contributions to the creative and performing arts. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

AFRAS 490. Senior Seminar (3)  
Prerequisites: Open only to majors who have completed the first semester of junior year. Capstone experience in which mastery of practice, theories, concepts, and issues central to Africana studies is demonstrated.

AFRAS 496. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

AFRAS 499. Special Study (1-3)  
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

American Indian Studies (AMIND)  
In the College of Arts and Letters

LOWER DIVISION COURSES

AMIND 110. American Indian Heritage (3) [GE]  
(Selected sections offered as distance education)  
Major American Indian themes, beliefs, and practices and their impact on Western civilization through institutions, art, literature, philosophy, and religion.

AMIND 140. U.S. History from an American Indian Perspective to 1870 (3) [AI]  
U.S. history from an indigenous perspective pre-Columbian contact to 1870. Examines Native American societies with attention to white intrusion, U.S. constitution and legislation to remove Indians, control of their land and impact upon indigenous culture and society. Satisfies the American Institutions requirement in American history and United States Constitution.

AMIND 141. U.S. History from an American Indian Perspective Since 1870 (3) [AI]  
U.S. history from an indigenous perspective from 1870 to the present. Examines Native American societies, political systems, and reservations. Attention given to historical, contemporary, political, socioeconomic issues, the U.S. and California constitutions and their impact on Native Americans. Satisfies the American Institutions requirement in American history and California government.

AMIND 200. American Indian Environmental Management (3)  
Native American sciences and contemporary tribal environmental management, including care and restoration of California and other North American landscapes. Environmental issues surrounding American Indian lands, such as water supply and quantity, land use planning, environmental justice, and environmental economics.

AMIND 220. Contemporary California Indian Issues (3)  
Contemporary reservation, rural, and urban Indian communities in California. California Indian status and issues examined through history, literature, economic development, law, political systems, religious practices, ecology, language use, and identity formation.

AMIND 240. Kumeyaay History (3)  
History of Kumeyaay and Diegueno tribes living in Southern California and Baja, prior to contact with Europeans to late twentieth century. Traditional culture including socio-political organization. Relations with and reactions to Spanish, Mexican, and American cultures.

AMIND 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES  
(Intended for Undergraduates)

AMIND 300. American Indian Oral Literature (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities. Pre-twentieth century American Indian oral and symbolic traditions including creation and origin legends, coyote stories, ceremonial songs, oratory, and memoirs.

AMIND 320. American Indians in Contemporary Society (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Sociological understanding of the American Indian groups in contemporary society with emphasis on the relationship to dominant society and why the focus has been on Indians as social problems.

AMIND 370. Tribal Gaming: Cultural and Political Context (3)  
(Same course as Hospitality and Tourism Management 370)  
Prerequisite: American Indian Studies 110 or Hospitality and Tourism Management 201. Social and political context of American Indian tribal gaming, political relationships between federal and tribal governments, contemporary examples of tribal gaming, sociocultural and economic forces leading to gaming as strategy for economic development, and responses by non-Indian communities to tribal gaming.

AMIND 400. The American Indian Political Experience (3)  
Social and political response to dominant group policies by the American Indian as compared to other minority groups.
AMIND 420. Indian Peoples of California (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Indian peoples of California. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

AMIND 430. American Indian Poetry and Fiction (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Contemporary American Indian poetry and fiction explored in works of Welch, Ortiz, Momaday, Silko, Deloria, Allen, Erdrich, and others.

AMIND 435. Indians Through Film and Television (3) [GE]
Ethnographic film-making. Impact of movies and television on popular concepts of Indians. Films viewed in class.

AMIND 440. American Indian History (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Historical analysis of Indian-White contact. Emphasis on the impact of historical events upon the various cultures.

AMIND 451. American Indian Identity (3) [GE]
(Same course as Anthropology 451)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Multidisciplinary perspectives on American Indian identity today. Topics include perspectives from political, ethnic, cultural and legal standpoints, both within and outside of indigenous communities, as well as diachronic variation in perspectives. (Formerly numbered American Indian Studies 450.)

AMIND 460. American Indian Languages (3) [GE]
(Same course as Linguistics 460)

AMIND 470. American Indian Religion (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Spirits, prophecies, and renewals of the Indian way compared through symbols and ceremony. Religions surveyed as they have been influenced by foreign elements and philosophies. Influences on values and tribalism as reflected through symbols and other measures.

AMIND 480. Issues in American Indian Education (3) [GE]
Prerequisites: American Indian Studies 110 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

AMIND 485. Federal Indian Law (3)
Prerequisites: American Indian Studies 110, 320, or 440. Legal relationship between the United States and Indian people and Indian tribes as field of Indian law was developed and has changed over the years until the present.

AMIND 496. Topics in American Indian Studies (1-3)
An undergraduate seminar. See Class Schedule for specific content. Maximum credit six units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

AMIND 499. Special Study (1-4)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.
ANTH 351. Language and Globalism (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Relationship between languages and global expansion of human societies from early modern humans to present. Changes in language use accompanying emergence of new communicative technologies and increased integration of diverse societies and cultures into the world economy.

ANTH 360. From the Grave: Modern Forensic Anthropology (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.A. 2. Life Sciences. If a biological sciences course is not taken to satisfy Foundations II.A. 2. Life Sciences, a college course in biological sciences is required.

Physical anthropology and skeletal biology within medicolegal context. Methodologies used in science of forensic anthropology, as interdisciplinary nature and authorities in related fields.

ANTH 396W. Writing of Anthropology (3)
Prerequisites: Anthropology 101 and 102. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed the Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Ability to write clearly, correctly and effectively about anthropological subjects. Examples of anthropological writing from the main subdisciplines, mini-ethnographies, summaries and critiques.

ANTH 402. Dynamics of Biocultural Diversity (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Interaction of biology and culture in human populations. Relating genetic and cultural processes to the changes in human populations over time.

ANTH 406. Nonhuman Primates (3)
Prerequisites: Anthropology 101.

Basic aspects of nonhuman primates, geographical distribution, ecology (habitat, diet), external and internal morphology, locomotion and social behavior, reproduction and development.

ANTH 410. Language in Culture (9) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Survey of anthropological interests in the study of language and of linguistic interests in the sociocultural context of language.

ANTH 422. Music and Culture (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

How the forms, functions and meanings of music vary crossculturally. Understanding a society’s music historically, holistically and experientially, with emphasis on non-Western music. Universals of music and music use. Ethnological theories of music and music change.

ANTH 424. The Supernatural in Cross-Cultural Perspective (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Magic and religion. Conceptions of the supernatural in a cross section of world’s cultures. Anthropological theories relating to supernatural beliefs and practices.

ANTH 429. Anthropology of Food and Eating (3)
Prerequisites: Anthropology 101 and 102.

Human biological and cultural variation as seen in study of food and eating. Biocultural approach to explore evolution of human diet to political economy of contemporary food systems.

ANTH 430. Anthropology of Law and Dispute Processing (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Law, social control, and dispute processing studied in sociocultural context. Law in Western society compared with "law-ways" in a number of traditional or nonindustrialized cultures. Basic concepts and theories about law examined crossculturally.

ANTH 432. Principles of Personality in Culture (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles related to the determinants of human behavior contained in culture. Studies of behavior crossculturally.

ANTH 439. Cultural Comparisons Through Film (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Pre-European cultures and civilizations of Mexico and upper Central America from 25,000 years ago to arrival of Spanish in 1517. Regional histories, economies, social organizations, ideologies, and political systems, settlement patterns, architecture, and art.

ANTH 440. South American Civilization Before the Europeans (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Pre-European cultures and civilizations of Pacific Coastal, Andean Highland, and Amazonian South America from 25,000 years ago until 1553. Regional histories, economies, social organizations, political systems, ideologies, art, and architecture from peopling of the continent to European contact and colonization.

ANTH 442. Cultures of South America (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures in terms of origins, migration, relation to habitat, cultural variation and relevance to contemporary trends. Development of Inca civilization, the effects of the Spanish conquest and its aftermath.

ANTH 444. American Cultures (3)
An "inside-out" view of America. What culture has to do with feeling like an American. Theory and method in anthropology. Approaches include subcultures, American values, and mass media.

ANTH 446. Native Peoples of the Southwest (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures of the American Southwest in historic times; ecological adaptations, responses to white contact, adaptations to modern American life.

ANTH 448. Cultures of Oceania (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Aboriginal cultures and peoples of Australia, Melanesia, Micronesia, and Polynesia in prehistoric, historic, and modern times.
ANTH 449. Cultures of Sub-Saharan Africa (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Indigenous peoples and cultures of Africa south of the Sahara. Comparison of cultural traditions, social organization, and modern trends in newly emergent nations of the area.

ANTH 450. Cultures of India (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Indigenous peoples and cultures of India and contiguous areas of South Asia. The development of cultural traditions, social organization, and modern trends.

ANTH 451. American Indian Identity (3) [GE]
(Same course as American Indian Studies 451)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Multidisciplinary perspectives on American Indian identity today. Topics include perspectives from political, ethnic, cultural and legal standpoints, both within and outside of indigenous communities, as well as diachronic variation in perspectives.

ANTH 452. Japanese Society (3) [GE]
Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

ANTH 457. Native Cultures of California (3) [GE]
Prerequisites: Anthropology 102 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Cross-cultural comparison of California Indian societies. Traditional political, religious, and economic institutions. Ecological adaptations. Linguistic diversity, traditional architecture, and culture change. Focus on Kumeyaay, Cahuilla, Chumash, Patwin, Pomo, and Yurok.

ANTH 471. Archaeology of North America (3)
Prerequisites: Anthropology 101 or 102.
Origins of the American Indian and survey of the main prehistoric cultures of the North American continent.

ANTH 495. Internship in Applied Anthropology (1-3) Cr/NC
Prerequisites: Anthropology 301, 302, 303, 304.
Supervised field placement of students in campus or community organization, museums, cultural resource management firms, social service and development agencies, forensic laboratories and other offices or business firms where concepts and principles of anthropology can be put into practice. May be repeated for maximum credit three units.

ANTH 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

ANTH 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ANTH 500. Primate Social Behavior (3)
Two lectures and three hours of laboratory.
Prerequisites: Anthropology 101.
Analysis of modes of primate socialization and development of social behavior with emphasis on communication, group structure, aggression, and sex. Various methods of analysis and observation practiced utilizing primate collection at the San Diego Zoo.

ANTH 505. Human Osteology (3)
Two lectures and three hours of laboratory.
Prerequisites: Anthropology 101. Recommended: Anthropology 301 and/or Biology 212.
Identification of individual bones and teeth; sex, age, and racial variation; stature reconstruction; continuous and discontinuous morphological variations; paleopathology. Training in observations, measurements, and analyses.

ANTH 506. Osteology and Paleopathology (3)
Two lectures and three hours of laboratory.
Prerequisites: Anthropology 505.
Conditions that result in bony pathological responses are often linked to cultural and environmental variables including habitual behaviors and diet. Will consider how these variables can be investigated through paleopathology and paleoepidemiology.

ANTH 507. Forensic Anthropology (3)
Two lectures and three hours of laboratory.
Prerequisites: Anthropology 505.
Anthropology within medicolegal context. Methodology used in forensic anthropology.

ANTH 508. Medical Anthropology (3)
Prerequisites: Anthropology 101 or 102.
Socio-cultural and ecology of disease, medical beliefs and practices in non-Western cultures, and complexities of health care delivery in pluralistic societies.

ANTH 520. Ethnographic Field Methods (3)
Prerequisites: Anthropology 102.
Problems and techniques of field work in ethnographic and social anthropological research: field work projects conducted using various qualitative and quantitative research techniques. Students work with informants in various settings.

ANTH 522. Economic Anthropology (3)
Prerequisites: Anthropology 102.
Integrates analyses of production, distribution, and consumption of goods and services with study of cultures. Interrelated economic, social, and cultural thought; classifications of disparate economies and reciprocity.

ANTH 523. Anthropology of Politics and Power (3)
Prerequisites: Anthropology 102.
How anthropology investigates power as an underlying and primary force in human relations through cross-cultural study of political institutions, effects, and relationships of power in various societies.

ANTH 524. Cultural Dynamics of Religious Discourse (3)
Prerequisite: Anthropology 102.
Interplay of local and global religious discourses. Creativity of indigenous religious practices. Dynamics of missionization, including hybridization with local religious practices. Fundamentalist discourses as oppositional mediations between local and global identity formations.

ANTH 529. Urban Anthropology (3)
Prerequisites: Anthropology 102.
Urban adaptations of past and present societies. Descriptive topics and applied concerns regarding urban origins, migrations, kinship, ethnicity, stratification, and change. Ethnographic examples drawn from Western and non-Western societies.

ANTH 531. Methods in Applied Anthropology (3)
Prerequisites: Anthropology 102.
Anthropological concepts and methodologies to solve human problems in both western and non-western societies through intervention, community development, impact assessment, and cultural communication.

ANTH 533. Race, Ethnicity, and Identity (3)
Prerequisites: Anthropology 102.
Theories and practices of race, ethnicity, and identity from a cross-cultural and anthropological perspective. History of race in US and other regions, focusing on how identities are constructed around concepts of difference.

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ANTH 535. Sex, Gender, Kinship, and Marriage (3)
Prerequisites: Anthropology 102.
Anthropological theories and typologies relating to kinship and marriage systems, their history, their relationship to cultural practices, their implications for constraints on sexual practices, and their significance in definition of gender and gender hierarchies in world societies.

ANTH 536. Gender and Human Sexuality (3)
Prerequisites: Anthropology 102.
Constructions of gender and sexuality from anthropological perspective. Social constructions of body, norms, deviance, and medicalization of sexuality.

ANTH 537. Anthropology of Childhood (3)
Prerequisite: Anthropology 102.
Childhood in diverse cultural settings; evolutionary, biosocial, and health-related aspects of childhood; social and cultural uses of idea of childhood; enculturation and children’s relationship to material culture.

ANTH 540. Contemporary Cultures of Mesoamerica (3)
Prerequisites: Anthropology 102.
Utilizing ethnographic data explore growth and development of contemporary cultures of Mesoamerica from precontact to today. Countries may include Mexico, Belize, Costa Rica, El Salvador, Guatemala, Nicaragua, and Panama.

ANTH 560. Advanced Archaeological Field Techniques (3)
Six hours of activity.
Prerequisites: Anthropology 312.
Advanced projects in excavation and stabilization of ruins, archaeological surveys, laboratory analysis, preparation of reports, and act as unit supervisor. Course may be repeated with consent of instructor. Maximum credit six units.

ANTH 561. Archaeological Laboratory Methods (3)
Two lectures and three hours of laboratory.
Prerequisites: Anthropology 560.
Application of palynology, paleontology and relevant technologies. Individual laboratory research project required.

ANTH 580. Anthropological Data Analysis (3)
Two lectures and three hours of laboratory.
Prerequisites: Anthropology 101 or 102 and a statistics course.
Recommended: Psychology 270 or Sociology 201.
Computer oriented data analysis class utilizing anthropological data sets. Special section of the SPSS computer workshop is required.

ANTH 582. Regional Anthropology (3)
Prerequisites: Anthropology 102.
Study of societies in a major geographical region of the world such as Africa, the Arctic, East Asia, Europe, Latin America, the Middle East, North America, Oceania, or South Asia. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

ANTH 583. Topical Anthropology (3)
Prerequisites: Anthropology 102.
Study of a major subdiscipline such as political anthropology, economic anthropology, social anthropology, psychological anthropology, cultural ecology, applied anthropology, anthropological genetics, or environmental archaeology. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

ANTH 596. Topics in Anthropology (1-3)
Prerequisites: Consent of instructor.
Advanced topics in anthropology. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Arabic (ARAB)
In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES
Native speakers of Arabic will not receive credit for taking lower division courses in Arabic except with advance approval from the department.

ARAB 101. Elementary Arabic I (4) [GE]
Introduction to Arabic, with emphasis on language of everyday conversation. Focus on vocabulary and structures needed for elementary speaking, listening, and reading. Not open to students who have completed three years of high school Arabic unless the third course was completed five or more years ago. Not open to students with credit in Arabic 102, 201, or 202.

ARAB 102. Elementary Arabic II (4) [GE]
Prerequisites: Arabic 101 or two years of high school Arabic.
Continuation of Arabic 101. Develops vocabulary and structures needed for elementary speaking, listening, and reading, with emphasis on the language of everyday conversation. Not open to students who have completed four years of high school Arabic unless the fourth course was completed five or more years ago. Not open to students with credit in Arabic 201 or 202.

ARAB 201. Intermediate Arabic I (4) [GE]
Prerequisites: Arabic 102.
Further development of speaking, listening, reading, and writing skills, with emphasis on the language of everyday conversation. Not open to students who have completed five years of high school Arabic unless the fifth course was completed five or more years ago. Not open to students with credit in Arabic 202.

ARAB 202. Intermediate Arabic II (4) [GE]
Prerequisites: Arabic 201.
Further development of speaking, listening, and reading skills, with emphasis on the language of everyday conversation.

UPPER DIVISION COURSES
(Indent for Undergraduates)

All upper division courses in Arabic are taught in Arabic unless otherwise stated.

ARAB 301. Advanced Arabic I (4) [GE]
Prerequisites: Arabic 202; and completion of the General Education requirement in Foundations II.C., Humanities.
Advanced facility in oral expression and writing for practical purposes; exposure to various dialects through newspaper and media Arabic; elements of literary and classical language.

ARAB 302. Advanced Arabic II (4) [GE]
Prerequisites: Arabic 301; and completion of the General Education requirement in Foundations II.C., Humanities.
Continuation of Arabic 301. More advanced writing and longer expository texts. Reading modern and classical texts.

ARAB 330. Arabic Culture (3) [GE]
Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.C., Humanities.
Cultures of Arabic speaking peoples of the Near East, Middle East, and North Africa, as reflected in literature, the arts, history, political and social institutions. Taught in English.
ARAB 350. Advanced Conversational Arabic (4) [GE]
Prerequisites: Arabic 202; and completion of the General Education requirement in Foundations II.C., Humanities.
Study of one or more spoken varieties of Arabic, with emphasis on advanced conversational proficiency. Social and cultural topics, conversational strategies and stylistic features. Dialect studied varies depending on student interest. May be repeated with new content. Maximum credit eight units.

ARAB 496. Topics in Arabic Studies (1-4)
Topics in Arabic language, literature, culture, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit eight units.

Art (ART)
In the School of Art, Design, and Art History
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

ART 100. Drawing I (3)
Six hours.
The ordering of two-dimensional space through drawing.

ART 101. Design I (3)
Six hours.
Fundamentals of space and color design. Basic course used as a prerequisite for advanced work.

ART 102. Drawing II (3)
Six hours.
Prerequisite: Art 100.
Line and value in drawing; emphasis on structure and proportion, sketching, gesture, and contour drawing.

ART 103. Design II (3)
Six hours.
Prerequisite: Art 101.
Introduction and investigation of design and theory, and practice in three dimensions.

ART 148. Visual Presentation I (3)
Six hours.
Prerequisites: Art 100.
Design drawing techniques including interior presentation drawings, interior detailing, architectural drafting, and lettering. Tools and materials used in the design professions.

ART 157. Introduction to Art (3) [GE]
An illustrated lecture course dealing with the meaning of art derived from an investigation of the principles of art. Designed to increase the understanding and appreciation of art.

ART 203. Life Drawing I (3)
Six hours.
Prerequisite: Art 102.
Drawing from the nude model. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 204. Painting I (3)
Six hours.
Prerequisites: Art 101 and 102.
Pictorial composition and techniques of painting. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 210. Printmaking I (3)
Six hours.
Prerequisites: Art 101 and 102.
Introduction and exploration of basic printmaking media. Emphasis on aesthetic and technical processes in intaglio, lithography, relief and serigraphy. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 216. Sculpture I (3)
Six hours.
Prerequisite: Art 103.
Introduction and experimentation of basic sculpture ideas, methods, and materials. Maximum credit three units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 217. Figurative Sculpture I (3)
Six hours.
Prerequisite: Art 103.
Creative experimentation with sculptural forms from the human figure. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 220. Design in Crafts (3)
Six hours.
Prerequisites: Art 103.
Visual and structural form in crafts.

ART 231. Jewelry and Metals IA (3)
Six hours.
Prerequisite: Art 220.
Design and construction of jewelry and small objects in non-ferrous metals. Basic fabrication, forming, and surface embellishment techniques for metal. Not open to students with credit in Art 331. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 240. Fundamentals of Digital Media (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100 and 101.
Principles of digital media used in visual communication. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 241. Graphic Design I (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103, 258, 259, and major standing. Concurrent registration in Art 339A.
Computer proficiency required with working knowledge of vector graphics software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

ART 242. Typography I (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103, 258, 259, and major standing. Concurrent registration in Art 339A.
Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

ART 247. The House and Its Environment (3)
Architecture, interior design, landscape and city planning for forming the physical and aesthetic environment. Not open to students with credit in Art 347.

ART 248. Visual Presentation II (3)
Six hours.
Prerequisites: Art 102, 103, 148. Proof of completion of prerequisites required: Copy of transcript.
Methods, materials, and tools of the professional environmental designer stressing art principles.

ART 249. Visual Presentation III (3)
Six hours.
Prerequisites: Art 248. Proof of completion of prerequisite required: Copy of transcript.
Methods, materials, and tools of the professional environmental designer stressing art principles.
ART 250. The Contemporary House (3)
Six hours.
Prerequisites: Art 248. Proof of completion of prerequisite required: Copy of transcript.
Elementary problems in neighborhood planning, house design, and landscaping.

ART 251. Interior Design I (3)
Six hours.
Prerequisites: Art 102 and 103. Proof of completion of prerequisites required: Copy of transcript.
Elementary functional and aesthetic studies in interior space and form. Relationships of light, color, texture, shape and volume.

ART 258. Introduction to Art History I (3) [GE]
Art development in painting, sculpture, architecture, and handicrafts from the dawn of art to the Renaissance. Illustrated.

ART 259. Introduction to Art History II (3) [GE]
The period from the Renaissance through the modern school treated in the same manner as in Art 258.

ART 263. Asian Art (3)
Arts of Asian countries including China, India, and Japan from prehistoric to pre-modern times. Role of religious belief and state ideology in shaping visual characteristics of regional cultures in Asia.

ART 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

ART 323. Furniture Design and Woodworking I (3)
Six hours.
Prerequisite: Art 103. Recommended: Art 148.
Principles of design through the making of furniture. Basic techniques in woodworking and joinery. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 325. Ceramics IA: Throwing (3)
Six hours.
Prerequisites: Art 102 and 103. Recommended: Art 220.
Basic methods of forming, decorating, glazing, and firing pottery forms with emphasis on the use of the potter's wheel. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 326. Ceramics IB: Handbuilt (3)
Six hours.
Prerequisites: Art 102 and 220.
Design and construction of handbuilt ceramic forms and application of glaze for surface enhancement. Traditional approaches and contemporary issues. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 331. Jewelry and Metals IB (3)
Six hours.
Prerequisites: Art 102 and 103. Recommended: Art 220.
Creative design and construction in metal of jewelry and small objects. Techniques in three-dimensional forming and constructions in nonferrous metals. Not open to students with credit in Art 231. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 339A. Software for Graphic Design I (1) Cr/NC
Two hours.
Prerequisites: Art 102, 103, and premajor or major standing. Software for graphic design including vector, page layout, and image editing software consistent with current industry.

ART 340. Photographic Imagery (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103, Art 241 and 339A for graphic design majors. Proof of completion of prerequisites required: Copy of transcript.
Visual communication and expression using photographic media including photomechanical and digital processes and theory of color and light. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 341. Graphic Design II (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 241, 242, 339A, 345. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.
Graph form with emphasis on visual translation techniques, visual metaphor, signs and symbols.

ART 342A. Typography II (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 241, 242, 339A, 345. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.
Typographic layout and page systems including theories of visual organization, proportion, and grids with emphasis on expression and communication. (Formerly numbered Art 342.)

ART 342B. Letterpress (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 210 or 242.
History, technology, and process of relief printing using moveable type and photopolymer plates to create individual and collaborative page designs that integrate image and text. Maximum credit six units.

ART 343. Drawing and Illustration for Graphic Design I (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 203 or 204. Proof of completion of prerequisite required: Copy of transcript.
Visual notation, sketching, representational drawing, and visual translation related to graphic design.

ART 344A. Design for the Internet I (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 240 or 340.
Creative and practical applications of interactive visual communication using digital media fundamental to creation and design of interface, graphics, illustrations, photography, animation, sound, video, and interactive navigation for presentation on the Internet. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required. (Formerly numbered Art 344.)

ART 344B. Design for the Internet II (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 344A.
Intermediate design and development for World Wide Web. Topics include animation, gaming, advanced scripting and Internet art, and experimental applications.

ART 345. History of Graphic Design (3)
Prerequisites: Grade of C (2.0) or better in Art 258 and 259. Proof of completion of prerequisites required: Copy of transcript.
Evolution of graphic communication from prehistory through post-modern design and the digital revolution. (Formerly numbered Art 245.)
ART 346. The Art of the Book I (3)  
Six hours.  
Prerequisites: Any 300- or 400-level art or design course. Termination, tools, materials, and reproduction processes related to the making of books: historical and contemporary book structures; and development of content in the form of image and text. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 347. The House and Its Environment (3)  
Architecture, interior design, landscape, and city planning for forming the physical and aesthetic environment, its simplicities and complexities. Not open to students with credit in Art 247.

ART 348. Three Dimensional Digital Media (3)  
Six hours.  
Prerequisites: Grade of C (2.0) or better in Art 148 or 240 or 241 or 242. Design communication utilizing digital media as it relates to three-dimensional objects and spatial environments.

ART 352. Methods and Materials of Interior Design (3)  
Prerequisites: Art 451.
Topics in successful professional practice including codes, legal liabilities, contractual agreements, project management. Lectures in field settings illustrate methods and materials of installation and explore environmental systems.

ART 357. World Art in Contemporary Life (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities. World art and technology from ancient to post modern era and their relationship to contemporary culture and life. Gallery visits required.

ART 371. Medieval Art (3)  
Prerequisites: Art 258.
Development of painting, sculpture, and architecture from time of Constantine through Gothic period.

ART 385. Art Education History and Practice (3)  
Six hours.  
Prerequisites: Art 102, 103, 258, 259.
History and theory of art education. Role of art in child and adolescent development, art heritage, diversity and equity in art education and teaching methodologies. For art majors interested in pursuing the single subject teaching credential.

ART 387. Art for Elementary School Teacher (3)  
Six hours.  
Prerequisites: Art 101, or upper division standing and consent of instructor.
A design-crafts course that explores in depth materials and processes primarily used by the elementary school teacher.

ART 403. Life Drawing II (3)  
Six hours.  
Prerequisite: Art 203.
Drawing the nude model. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 404. Painting II (3)  
Six hours.  
Prerequisite: Art 204.
Concepts that enhance basic painting principles and a broad range of painting issues. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 406. Experimental Processes in Painting and Drawing (3)  
Six hours.  
Prerequisites: Art 203 and 204.
Structure in picking making. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 407. Fine Art Photography I (3)  
Six hours.  
Prerequisites: Art 102, 103, and six units of studio art. Black and white photography and darkroom techniques combined with independent research in contemporary art and photography. Criticism in contemporary context. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 408. Fine Art Photography II (3)  
Six hours.  
Prerequisite: Art 407 or portfolio review.
Color photography as a fine art medium, including color theory, transparency and negative film exposure controls, darkroom techniques, and electronic flash and lighting techniques for color photography. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 410. Printmaking IIA- Intaglio (3)  
Six hours.  
Prerequisites: Art 203 and 210.
Creative intaglio-etching, drypoint, aquatint, engraving and variations. Emphasis on fine print quality and technical development. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 411. Printmaking IIB- Lithography (3)  
Six hours.  
Prerequisites: Art 101 and 203.
Creative lithography-stone and plate planographic process. Emphasis on fine print quality and technical development. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 416. Sculpture II (3)  
Six hours.  
Prerequisite: Art 216.
Individual investigation into sculpture ideas, methods and materials, including clay, metal, plastics, paper or wood. Individual development in sculpture. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 423. Furniture Design and Woodworking II (3)  
Six hours.  
Prerequisite: Art 323.
Intermediate individual design: Exploration of materials, processes and function. Specialized techniques focusing on case construction, making of drawers and doors for furniture. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 425. Ceramics II (3)  
Six hours.  
Prerequisites: Art 325 and 326.
Continuation of Art 325. Further development of knowledge, skills and philosophy of ceramics through individual creative projects. Maximum credit three units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 431. Jewelry and Metals IIA - Jewelry (3)  
Six hours.  
Prerequisite: Art 231 or 331.
Creative design and techniques in metalsmithing. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 432. Jewelry and Metals IIB - Metalsmithing (3)  
Six hours.  
Prerequisite: Art 231 or 331.
Creative design and techniques in metalsmithing. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.
ART 435. Fiber Construction I (3)  
Six hours.  
Prerequisites: Art 102 and 103. Recommended: Art 220.  
Textile structures with emphasis on nonloom techniques. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 436. Fiber Surface Design I (3)  
Six hours.  
Prerequisites: Art 102 and 103. Recommended: Art 220.  
Application of design for the textile surface, using a broad variety of media and processes appropriate for both the individual designer and commercial reproduction. Media include stencil, block, silk-screen, batik, and tie-dye. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 440. Digital Photography I (3)  
Six hours.  
Prerequisite: Grade of C (2.0) or better in Art 340, or 240 and 407.  
Visual and creative expression using photographic media with emphasis on refining technical skills, including lighting.

ART 441. Information Graphics (3)  
Six hours.  
Prerequisites: Art 339A and grade of C (2.0) or better in Art 340, 341, 342A, 345. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.  
Analysis and translation of complex information into visual communication systems.

ART 442. Typography III (3)  
Six hours.  
Prerequisites: Art 339A and grade of C (2.0) or better in Art 340, 341, 342A, 345. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, and motion graphics software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.  
Typographic problem solving including more complex text materials and type with image.

ART 443. Drawing and Illustration for Graphic Design II (3)  
Six hours.  
Prerequisites: Grade of C (2.0) or better in Art 343. Proof of completion of prerequisite required: Copy of transcript.  
Drawing and illustration methods, materials, tools, and processes as they relate to graphic design. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 445A. Professional Practice in Graphic Design (1) Cr/NC  
Two hours.  
Prerequisites: Grade of C or better in Art 340, 341, 342A, and consent of instructor.  
Evolving role of graphic designer in contemporary design practice, standards of professional conduct, and business practices.

ART 445B. Graphic Design Internship (3) Cr/NC  
Prerequisites: Art 339A and grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, or 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.  
Field experience with practicing professionals. Maximum credit six units.

ART 445C. Senior Portfolio/Exhibition (3)  
Six hours.  
Prerequisites: Art 339A and grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, or 541 for graphic design majors, Art 344B, 448, 540, or 544 for multimedia majors; and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.  
Planning, strategy, and development of a comprehensive body of design work to be professionally presented in a portfolio and/or exhibition format.

ART 446. The Art of the Book II (3)  
Six hours.  
Prerequisites: Art 346.  
Creative research focused on concept, context, and form as they relate to communication and personal or collaborative expression within the context of the book. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 448. Sequential Media (3)  
Six hours.  
Prerequisites: Grade of C (2.0) or better in Art 240 and 341, or 344A, or 348.  
Study and presentation of sequential imagery and motion graphics. Maximum credit six units. (Formerly numbered Art 444.)

ART 450. Packaging Design (3)  
Six hours.  
Prerequisites: Art 339A and grade of C (2.0) or better in Art 340, 341, 342A, 345. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.  
Principles and theories of design: branding, typography, illustration, and photography applied to three-dimensional form within a specified social and cultural context with emphasis on strategy and concept: structure, functionality and materials; and modular systems.

ART 451. Interior Design II (3)  
Six hours.  
Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. Proof of completion of prerequisites required: Copy of transcript.  
Survey, analysis and conceptual design methods of residential interiors stressing materials, equipment, components and structural detailing. Maximum credit six units.

ART 452. Interior Design Practicum (3) Cr/NC  
Nine hours of laboratory.  
Prerequisites: Art 453. Proof of completion of prerequisite required: Copy of transcript.  
Field experience with local professional interior designers in client relationships, business procedures, supervision of subcontracted work and installation, and execution of contracts. Maximum credit six units.

ART 453. Interior Design III (3)  
Six hours.  
Prerequisites: Art 451 and completion of portfolio requirement. Proof of completion of prerequisites required: Copy of transcript.  
Materials and techniques of nonresidential space planning. Estimating, specification writing, contractual agreements, record keeping, budgets, and project supervision. Required field trips to professional offices, studios, and showrooms.

ART 454. Environmental Graphic Design (3)  
Six hours.  
Prerequisites: Art 339A and grade of C (2.0) or better in Art 340, 341, 342A, 345. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.  
Identification and communication systems applied to environmental solutions. Landmark and wayfinding signage systems in interior, exterior, and architectural environments in collaboration with interior design students.

ART 496. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

ART 498. Senior Project (3)  
Nine hours for 498A; three hours for 498B.  
Prerequisite: Consent of instructor.  
Investigation in art. Formal presentation of project.  
A. Studio project  
B. Art History project
ART 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ART 500. Advanced Drawing (3)
Six hours.
Prerequisites: One year of 400-level studio art coursework and consent of instructor.
Drawing emphasizing qualitative aspect of visual subject matter. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 502. Inter-Media (1-3)
Two hours for each unit of credit.
Prerequisites: Art 102 and 103. Process and materials in plane and space. Maximum credit six units. M.F.A. students: Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree.

ART 503. Life Drawing and Painting III (3)
Six hours.
Prerequisites: Art 204 and 403. Drawing and painting from nude and costumed models. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 504. Painting III (3)
Six hours.
Prerequisites: Six units of Art 404. Approaches to contemporary concepts in painting. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 506. Contemporary Issues for Studio Artists (3)
Prerequisites: Upper division or graduate standing in art and consent of instructor. Theory, practice, and philosophy of being an artist. Independent research on current art concepts and issues. Material will encompass the past five years. Field trips.

ART 511. Printmaking III—Lithography (3)
Six hours.
Prerequisites: Art 411. Advanced creative lithography printmaking in color. Emphasis on fine print quality in color process and color technology unique to this medium. Maximum credit six units. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 516. Sculpture III (3)
Six hours.
Prerequisites: Art 416. Individual investigations into sculpture ideas, methods, and materials. Individual development in sculpture. Materials may include clay, metal, plastics, paper or wood. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 517. Figurative Sculpture II (3)
Six hours.
Prerequisites: Art 216 and 217. Figurative study with emphasis on individual exploration. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 523. Furniture Design and Woodworking III (3)
Six hours.
Prerequisites: Six units of Art 423. Advanced individual design: Exploration of materials, process and function. Continued focus on development of personal design statements and specialized techniques. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 525. Ceramics III (3)
Six hours.
Prerequisites: Art 425. Study of ceramic design through creative projects of clay forms. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 526. Clay and Glaze Technology in Ceramic Design (3)
Six hours.
Prerequisites: Art 425. Experimentation and application of research concerning the use of ceramic materials and techniques as an integral part of the design process. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 531. Jewelry and Metals IIIA—Jewelry (3)
Six hours.
Prerequisites: Art 431. Problems involving fabrication processes already studied in order to increase technical competence while exploring personal design statements; specialized techniques such as photoetching and electroforming. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 532. Jewelry and Metals IIIB—Metalsmithing (3)
Six hours.
Prerequisites: Art 432. Advanced problems involving metal processes to increase technical competence while exploring personal design statements. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 535. Fiber Construction II (3)
Six hours.
Prerequisites: Art 435. Advanced study in nonloom techniques. Techniques to include: looping, braiding, plaiting, and special fabricating techniques. Experimentation with new man-made fibers and with synthetic commercial dyes. Maximum credit six units.

ART 536. Fiber Surface Design II (3)
Six hours.
Prerequisites: Art 436. Application of design for the textile surface, appropriate for both the individual designer and commercial reproduction. Maximum credit six units.

ART 542. Digital Photography II (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 340, or Art 240 and 407. Visual communication and expression using photographic media, including photomechanical and digital processes. Preparation for multimedia and digital prepress. Maximum credit six units with consent of instructor. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 541. Visual Identity and Branding Systems (3)
Six hours.
Prerequisites: Art 339A and grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required; Copy of transcript required.

Strategy, planning, and problem solving related to visual communication systems with emphasis on social and cultural context.
ART 542. Typography IV (3)
Six hours.
Prerequisites: Art 339A and grade of C (2.0) or better in Art 442. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisite required: Copy of transcript.

ART 543. Drawing and Illustration for Graphic Design III (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 443. Proof of completion of prerequisite required: Copy of transcript. Strategy and problem solving of professional illustration as related to graphic design; individual conceptual and contextual exploration. Maximum credit six units.

ART 544. Emerging Technologies in Multimedia (3)
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 348 or 440 or 448 or 540. Advanced design studies in emerging electronic communications, including cyberstudios, Internet and multimedia. Exploration in collaborative, interdisciplinary, and international projects. Maximum credit six units with consent of instructor.

ART 545. Design Studio (3)
Six hours.
Prerequisites: Art 339A and grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript. Solutions to design problems for clients in a studio environment including business procedures and production management. Development of a professional level portfolio. Maximum credit six units with consent of instructor. Students may not re-enroll in this course after earning six units of C or higher. Copy of transcript required.

ART 546. The Art of the Book III (3)
Prerequisite: Art 446. Design and creation of limited edition artist books made with mixed media and hand printing techniques such as letterpress, intaglio, woodcut, lithography, and photo. Maximum credit six units. Combined credit of 15 units for Art 346, 446, 546.

ART 547. Environmental Theory (3)
Prerequisites: Art 247 or 347. Survey of alternative solutions to the problem of design of the physical environment.

ART 552. Interior Design IV (3)
Six hours.
Prerequisites: Art 451, 453, and completion of portfolio requirement. Proof of completion of prerequisites required: Copy of transcript. Projects in architectural interiors involving the use and perception of enclosed spaces. Space planning systems analysis. Maximum credit six units.

ART 553. Interior Design V (3)
Six hours.
Prerequisites: Art 552. Proof of completion of prerequisite required: Copy of transcript. Projects in interiors involving space planning analysis, specification writing, materials selection and furnishing design appropriate to commercial needs. Maximum credit six units.

ART 557. Nineteenth Century European Art (3)
Prerequisites: Art 259. Development of painting, sculpture, and architecture from the French Revolution to 1900.

ART 558. Twentieth Century European Art to 1945 (3)
Prerequisites: Art 259. Major developments in the visual arts and art criticism from 1880 to 1945 (Post-Impressionism through Surrealism).

ART 559. Twentieth Century European and American Art Since 1945 (3)
Prerequisites: Art 259. Recommended: Art 558. Major developments in the visual arts and art criticism since 1945.

ART 560. History of American Art (3)
Prerequisites: Art 259. Development of painting, sculpture, and architecture from the Native American art and Colonial Period to the present.

ART 561. Art of Pre-Hispanic America (3)
Prerequisites: Art 259. Art and architecture of Mesoamerica from Olmecs to Aztecs. Role of art as transmitter of cultural information and world view. Continuities and ideologies that characterize Mesoamerican civilizations.

ART 562. Art of Latin America (3)
Prerequisites: Art 259. Art and architecture of Latin America from the colonial period to the present. Field trips included.

ART 563. Modern Mexican Art (3)
Prerequisites: Art 258 and 259. Mexican art from 1900 to present. Emphasis on images created after Mexican Revolution (1910-1920) in murals, painting, architecture, prints, photography, film, conceptual art. Construction of national identity, debate between national/international currents in art and role of public art. Field trip.

ART 564. Art of China (3)
Prerequisites: Art 258 or 259 or 263. History of Chinese art from prehistoric times through the Ching Dynasty.

ART 565. Art of Japan (3)
Prerequisites: Art 258 or 259 or 263. History of Japanese art from prehistoric times to the Meiji Restoration.

ART 566. History of Japanese Painting Tenth to Twentieth Centuries (3)
Prerequisites: Art 258 or 259 or 263. History of Japanese painting from tenth to twentieth centuries, emphasizing art from three social groups: aristocrats, warriors, and merchants. Analysis of motifs, iconography, and styles of art schools developed during these periods, reinforced by social history.

ART 568. Art of Crete, Mycenae, Greece, and Rome (3)
Prerequisites: Art 258. Development of painting, sculpture, architecture, and crafts from prehistoric times to the fifth century A.D.

ART 569. Art of Sub-Saharan Africa (3)
Prerequisites: Art 258 or 259 or 263. Form and content of the art of Sub-Saharan Africa viewed within its cultural context.

ART 570. Art of the Pacific Islands (3)
Prerequisites: Art 258 or 259 or 263. Visual arts of the Pacific Islands; recognition of styles and object types and their historical, social, and cultural contexts.

ART 573A. Italian Art of the Fourteenth and Fifteenth Centuries (3)
Prerequisites: Art 259. Italian arts, architecture, artists, and patrons from fourteenth century Proto-Renaissance period through fifteenth century revival of classical humanism in city states of Florence, Siena, Bologna, Mantua, and Padua.

ART 573B. Italian Art in the Sixteenth Century (3)
Prerequisites: Art 259. High Renaissance in Florence and Rome, followed by disintegration of classical principles and domination of Mannerism in Central and Northern Italy and history of arts of Venice in sixteenth century.
ART 574. Northern Renaissance Art (3)
Prerequisite: Art 259.
Painting, sculpture, architecture, printmaking, and tapestries in Northern Europe, 1350-1575. Historical context of art and artists pertaining to gender, popular culture, courtly traditions, and changing role of artists in the Reformation.

ART 575. European Art from 1600 to 1750 (3)
Prerequisites: Art 259, Architecture, sculpture, and painting of the Baroque and Rococo periods.

ART 577. History of Architecture (3)
Prerequisites: Art 258 and 259.
Architecture from primitive times to the present.

ART 578. Seminar in History of Museums and Exhibitions (3)
Prerequisites: At least one course selected from Art 557, 558, 559, or 560.
Origin, history, and function of the museum. Theories of collecting, museums, and construction of knowledge. Role of elites in formation and construction of museums, controversial exhibitions, exhibitionary practices, and globalization.

ART 591. Gallery Exhibition Design (3)
Six hours.
Prerequisites: Fifteen units of art.
Fundamental art elements and principles applied to the theories and techniques of gallery exhibition design.

ART 593. History and Methodology of Art History (3)
Prerequisites: Twelve units of upper division art history.
Readings and discussions on the historiography of art and on modern methodologies for art historical research.

ART 596. Advanced Studies in Art and Art History (1-4)
Prerequisites: Twelve units of art and art history and consent of instructor.
Advanced topics in art and art history. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Asian Studies (ASIAN)
In the Department of Asia Pacific Studies
In the College of Arts and Letters

LOWER DIVISION COURSES

ASIAN 100. State and Society in the Asia Pacific (3) [GE]
Social, political, and economic foundations of Asian Pacific societies. Emphasis on diversity of Asian cultures, their relationship with each other and within the global community.

ASIAN 101. Asian Thought and Cultures (3) [GE]
Intelectual and cultural underpinnings of East, Southeast, South, and Central Asia, from ancient to present, by means of a comparative overview of philosophies, religions, literatures, architectural design, visual and performing arts, highlighting continuing influence of tradition in contemporary Asian societies.

ASIAN 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

ASIAN 300. Asia’s Global Future (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Survey of contemporary Asia Pacific region and future prospects, politically, socially, and economically, as historically grounded in cultural and philosophical roots.

ASIAN 303. Imperialism and Nationalism in the Asia Pacific (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Relationships between imperialism and nationalism; how nationalism has shaped China, Japan, Taiwan, and states of Southeast Asia. Mid-nineteenth century to present, with emphasis on first half of twentieth century.

ASIAN 310. Contemporary Issues in Asian-American Communities (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Diverse processes, economic, political, and cultural, that have shaped formation and continued growth of diasporan communities in Asia Pacific region. Historical origins and contemporary status of diasporan communities.

ASIAN 450. Socio-cultural and Health Issues among Asia Pacific Americans (3) [GE]
Asia Pacific American communities and social/cultural factors that influence individual and current community health, programs, legislation, and movements aimed at closing health gaps. Emphasis on Filipinos, Indo-Chinese, Chinese, Japanese, and Hawaiians.

ASIAN 458. Asian Traditions (3) [GE]
Prerequisites: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Social, cultural, economic, and political traditions of South, Southeast, and East Asia; how they functioned in theory and practice prior to twentieth century.

ASIAN 459. Modern Asian Cultures (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Humanities required for nonmajors.
Interdisciplinary investigation of East and Southeast Asian countries and regions. Western colonialism to rise of Asia as an economic and political power; ethnicity in Asian politics and society; terrorism, leadership struggles, and secessionist movements in Indonesia, Burma, and the Philippines.

ASIAN 460. Contemporary Issues in Filipino-American Communities (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
History of Philippines and Filipino immigration to US. Current issues in Filipino American communities to include labor, health, gender and sexuality, race relations, family culture and parenting, youth and the elderly, ethnic identity and empowerment.

ASIAN 471. Business Environment in the Asia Pacific (3)
Prerequisites: Consent of instructor for nonmajors.
Business environment in the Asia Pacific in terms of economic, political, legal, and cultural environment. Emphasis on major economies of the region, Japan, South Korea, and China. (Formerly numbered Asian Studies 330.)

ASIAN 472. Economic Reforms in China (3)
China’s economic reforms and their impact on civil society and political development in contemporary China.
Astronomy

ASTR 101. Principles of Astronomy (3) [GE]
Discover the universe: planets, stars, galaxies, and our place in the cosmos; the Big Bang; how stars shine; comets, meteors, nebulae, the Milky Way; black holes and other exotic objects. Not open to students with credit in Astronomy 201.

ASTR 109. Astronomy Laboratory (1) [GE]
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Astronomy 101 or 201.

ASTR 201. Astronomy for Science Majors (3) [GE]
Directed toward students with a strong interest in science and mathematics. Understanding the night sky, introduction to the solar system, star formation and evolution, extrasolar planets, nature of the Milky Way and other galaxies, origin and fate of the universe. Students with credit in Astronomy 101 and 201 will receive a total of three units of credit toward graduation.

ASTR 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ASTR 301. Cosmology and Gravitational Collapse (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A.1. Physical Sciences.
Einstein's theory of general relativity applied to problems of gravitational collapse (stellar evolution, neutron stars, black holes) and cosmology (origin and evolution of the universe).

ASTR 302. Solar System Astronomy (3)
Prerequisites: Astronomy 201 and Physics 197, 197L.
Structures of the planets; their surfaces, atmospheres, and satellite systems; asteroids, comets, and meteoroids. The Sun, its structure, energy production, and influence in the solar system. Life in the solar system.

ASTR 340. Spherical Astronomy (3)
Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.
Problems in spherical astronomy, astronomical coordinate systems, time, general precession, and introduction to celestial mechanics.

ASTR 350. Astronomical Techniques (3)
Prerequisites: Astronomy 201.
Astronomical observation and optics. Data acquisition and reduction for modern astronomical instrumentation including photometry, direct imaging, and spectroscopy. Techniques for obtaining precise measurements and determining measurement uncertainties.

ASTR 400. Astrophysics of Stars (3)
Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.
Radiative transfer theory, atmospheres of stars and the emergent spectrum, interior structure and evolution of stars, stellar pulsations.

ASTR 450. Astrophysics of Star Systems (3)
Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.
Problems in astrophysics of star clusters, the interstellar medium and galactic structure, galaxies, and cosmology.

ASTR 496. Experimental Topics (3)
Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

ASTR 498A. Senior Project (1)
Prerequisites: A student's academic program must demonstrate that they are on track to graduate within one academic year. Selection and design of individual projects.

GRADUATE COURSES
Refer to the Graduate Bulletin.
Biology (BIOL)

In the College of Sciences

LOWER DIVISION COURSES

BIOL 100. General Biology (3) [GE]
Prerequisite recommended: Concurrent registration in Biology 100L.
A beginning course in biology stressing processes common to living organisms. Not applicable to biological sciences majors; see Biology 201A. Not open after Biology 201A or 201B.

BIOL 100L. General Biology Laboratory (1) [GE]
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Biology 100. A laboratory course in biology stressing processes common to living organisms. Not applicable to biological sciences majors; see Biology 201A. Not open after Biology 201A or 201B.

BIOL 101. World of Animals (3) [GE]
Animal adaptation and diversity and their relationship to the development of evolutionary theory. Not applicable to biological sciences majors. Not open after Biology 201A or 201B.

BIOL 101L. World of Animals Laboratory (1) [GE]
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Biology 101. Laboratory course on evolution and diversity of animals involving field trips and laboratory investigations. Not applicable to biological sciences majors. Not open after Biology 201A or 201B.

BIOL 201A. Principles of Cell and Molecular Biology (4)
Three lectures and three hours of laboratory.
Prerequisites: Chemistry 200 and satisfaction of the English Placement Test requirement.
Principles of biology applying to all organisms, including cell structure, membrane transport, energy metabolism, cell division, classical and molecular genetics, recombinant DNA, population genetics, mechanisms of evolution, and the basis of classification.

BIOL 201B. Principles of Organismal Biology (4)
Three lectures and three hours of laboratory.
Prerequisites: Satisfaction of the English Placement Test requirement. Strongly recommended: Completion of Biology 201A.
Principles of biology covering all organisms, including systematic diversity of bacteria, protista, fungi, plants and animals, and concepts of physiology, reproduction, development and differentiation, ecology, and the causes of the endangerment of a species.

BIOL 210. Fundamentals of Microbiology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A; or Biology 100, 212 and Chemistry 100 or 102 or 130.
For nursing and foods and nutrition majors. Study of microorganisms of the environment, including disease-producing organisms, their actions and reactions. Not applicable to biological sciences majors; see Biology 350.

BIOL 212. Human Anatomy (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 100 or 201A.
Gross and microscopic anatomy of organ system of human body.

BIOL 215. Biostatistics (3) [GE]
Prerequisites: Credit or concurrent registration in Biology 201A or 201B and Mathematics 121 or 141.
Methods and experience in defining and solving quantitative problems in biology, including design of experiments, and parametric and nonparametric statistical techniques. Students with credit or concurrent registration in the following lower division courses will be awarded a total of four units for the two (or more) courses: Biology 215; Administration, Rehabilitation and Postsecondary Education 201; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250.

BIOL 246. Colloquium in Biomedical Sciences (1)
Prerequisites: University level biology course.
Current biomedical research projects ranging from cell biology to behavioral research. Research paper required. Maximum credit two units.

BIOL 247. Advanced Degree Programs in the Sciences: Application Strategies (1) Cr/NC
Two hours of activity.
Prerequisites: Junior or senior standing.
Instruction in preparing competitive applications to sciences’ M.S. and Ph.D. degree programs to include development of the required personal statement. Introduction to sources of financial support, such as national fellowship programs, and development of interview skills and materials. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 248. Careers in Biological Sciences (1) Cr/NC
Career opportunities in biological sciences. Specialists in major biological areas will present information about their fields and how best to prepare for careers. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 249. Career Choices in the Health Professions (1) Cr/NC
Career opportunities in allied health professions; trends in health care; discussion of medical ethics; practicing professionals will present about their fields and how best to prepare for careers in their area of health care. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 250. Preprofessional Topics (1) Cr/NC
Designed to expose the preprofessional student to the profession of his/her choice through speakers and selected readings. Emphasis on alternatives and meeting stresses as a preprofessional student. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

A. Topics in Medicine.
B. Topics in Dentistry.
C. Topics in Veterinary Medicine.

BIOL 261. Human Physiology (4)
Three lectures and three hours of laboratory.
Prerequisites: Chemistry 100 or 102; Biology 100 or 201A, 212; credit or concurrent registration in Chemistry 102 or 130.
Human function viewed from cellular through organ system levels of organization. Intended primarily for prenursing students. Not applicable to biological sciences majors. Not open to students with credit in Biology 336, 436, or 590.
Biology

**Biol 277. Medical Terminology (2)**
Prerequisites: Biology 201B.
Words and word components used in medical and allied medical practice translated, investigated, and applied.

**Biol 291. Biology Laboratory (1)**
Prerequisites: Recommendation by department and consent of instructor.
Special course to allow makeup of program laboratory deficiencies. Student will be assigned to a laboratory section of the appropriate course.
- A. Laboratory for Biology 201A. (Formerly numbered Biology 291A.)
- B. Laboratory for Biology 201B. (Formerly numbered Biology 291B.)
- C. Laboratory for Biology 215.

**Biol 296. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**Biol 299. Special Study (1-3)**
Individual research experience and interaction with researchers at an introductory level. Projects involve approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between the student and the researcher. Maximum credit four units.

**UPPER DIVISION COURSES**
(Intended for Undergraduates)

**Writing Requirement:** Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course is a prerequisite for all upper division biology courses numbered 450 and above.

**Biol 305. Scientific Scuba Diving (3)**
Two lectures and three hours of laboratory.
Prerequisites: Upper division standing. Swimming competency evaluation, physical examination approval for scuba diving, waiver for scuba diving.
- Entry level scientific diver training and certification course. Theory and practical diving skills to include diving physiology, hyperbaric conditions, medical hazards, proper selection, care and operation of diving equipment, marine environment, emergency procedures, scientific diving techniques and regulations. Not open to students with credit in Biology 306 or Exercise and Nutritional Sciences 320, 323, 324. Not applicable to biological sciences majors. (Formerly numbered Oceanography 305.)

**Biol 306. Scientific Scuba Diving for Certified Divers (3)**
Two lectures and three hours of laboratory.
Prerequisites: Biology 305 and Advanced or Scientific Diving Certification, diving skills proficiency evaluation, acceptable openwater diving equipment, physical examination approval for scuba diving, waiver for scuba diving.
- Scientific diving operations, techniques and procedures; dive planning and lead diver responsibilities; underwater work, mapping, search and salvage, navigation, deep, night and small boat diving; emergency procedures and rescue. Physics, physiology, medicine, decompression theory, oceanography, marine life and marine environment. Master Diver Certification. Not open to students with credit in Exercise and Nutritional Sciences 324. Not applicable to biological sciences majors. (Formerly numbered Oceanography 306.)

**Biol 307. Biology of Sex (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological science course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological science is required.
- Reproductive adaptations in humans, and comparatively in other species. Topics include sex differences, mate choice and mating behavior, fertility regulation, fertilization and embryonic development, sex ratios, parental investment, effects of aging, and life history strategies. Not applicable to biological sciences majors.

**Biol 315. Ecology and Human Impacts on the Environment (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning. If a biological science course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological science is required.
- Ecological characteristics of natural ecosystems and basic effects of human society upon those systems, emphasizing resource management, food production, global environmental problems, and future directions. Not applicable to biological sciences majors.

**Biol 319. Evolution (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.
- Modern theory of organic evolution with emphasis on processes involved as they relate to past, present, and future evolution of mankind. Not applicable to biological sciences majors; see Biology 352.

**Biol 324. Life in the Sea (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.
- Overview of complexity of marine life. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. Current controversies concerning the marine biosphere. Not applicable to biological sciences majors.

**Biol 326. Plants, Medicines, and Drugs (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.
- Medicinal plants, toxic-poisonous plants, herbal medicines, psychoactive plants, preparation of medicines and mechanisms of action; current research results on medicinal plants and drugs used in diseases such as diabetes, cancer, and heart diseases. Not applicable to biological sciences majors.

**Biol 327. Conservation of Wildlife (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.
- Global ecosystems and their dynamics, with emphasis on sustainable human use and preservation of biodiversity. Not applicable to biological sciences majors.

**Biol 336. Principles of Human Physiology (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.
- Systems of the human body, their interrelationships and control systems which regulate them. Not open to students with credit in a college course in human physiology. Not applicable to biological sciences majors.

**Biol 340A. Preventive Dentistry Program (1-2) Cr/NC**
Four hours of clinical and other activities per unit.
Prerequisites: Upper division standing and active predental file in the Preprofessional Health Advising Office.
- Participation in clinic, dental observation, marketing activities and two field trips. Maximum credit four units. Not applicable to biological sciences majors.

**Biol 340B. Preventive Dentistry Leaders (2-4)**
Four hours of activity per unit.
Prerequisites: Biology 340A and consent of instructor.
- Supervision of one component of Preventive Dentistry Program. Maximum credit four units. Not applicable to biological sciences majors.
BIOL 341. The Human Body (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.
Survey of human body with emphasis on intricacy of design and integration of various organ systems. Not open to nursing, exercise and nutritional sciences, or biological sciences majors, or to students with credit in any college level human physiology or anatomy course.

BIOL 344. Advanced Human Anatomy (2)
One lecture and three hours of laboratory.
Prerequisites: Biology 212 and consent of instructor.
Advanced topics in human anatomy with emphasis toward dissection of human cadavers. Dissection techniques, pathology, and special training in prospection. Not applicable to biological sciences majors.

BIOL 348. Health Professions Internship (1-3)
Prerequisites: 3.0 overall GPA, completion of lower division writing competency requirement, and consent of instructor.
Internship in a health care setting; term paper required. Maximum credit three units. Not applicable to biological sciences majors.

BIOL 350. General Microbiology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A, 201B, and 215; Chemistry 321.
Actions and reactions of microorganisms in response to their environment, both natural and as changed by other organisms, including man. Also includes an introduction to pathogens.

BIOL 352. Genetics and Evolution (3)
Prerequisites: Biology 201A, 201B, and 215.
Principles of transmission genetics, population genetics, and evolution.

BIOL 354. Ecology and the Environment (3)
Two lectures and one hour of discussion.
Prerequisites: Biology 201A, 201B, 215; and Mathematics 122
Fundamental concepts in population, community, and ecosystem ecology.

BIOL 354L. Experimental Ecology (2)
One hour of discussion and three hours of laboratory.
Prerequisites: Credit or concurrent registration in Biology 354.
Methods of research in ecology; approaches to analysis of populations, communities, and ecosystems.

BIOL 366. Biochemistry, Cell and Molecular Biology II (4)
Prerequisites: Chemistry 365.
Concepts of modern integrated molecular biology, cell biology, and biochemistry.

BIOL 366L. Biochemistry, Cell and Molecular Biology Laboratory I (2)
Six hours of laboratory.
Prerequisites: Credit or concurrent registration in Biology 366.
Basic laboratory approaches in biochemistry, cell biology, and molecular biology.

BIOL 436. Human Physiology Laboratory (2)
One lecture and three hours of laboratory.
Prerequisites: Credit or concurrent registration in Biology 336 or 592.
Human physiology and rationale of current week’s laboratory and experimental outcomes of previous week’s laboratory. Not open to students with credit in Biology 261.

BIOL 452. Science Concept Development and Integration (3)
Two lectures and three hours of activity.
Prerequisites: Senior standing, or participation in the science single subject credential program.
Development and integration of biological science content knowledge, introduction to learning theory, and transformation of knowledge. Designed for students preparing for the single subject teaching credential in life sciences.

BIOL 460. Economic Botany (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 201A and 201B.
Plants of agricultural, economic, and historical importance. Topics include basic plant morphology, anatomy, and taxonomy; plant genetics, agricultural breeding and propagation techniques, vegetables and fruits, spices and herbs, beverage plants, woods and plant fibers.

BIOL 461. Underwater Research Methods and Techniques (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 201B and Exercise and Nutritional Sciences 323 or Biology 306, and three upper division units in biology. Advanced Openwater or Scientific Scuba Diving Certification, diving skills proficiency evaluation, acceptable openwater diving equipment, medical examination, approval for scuba diving and waiver for scuba diving.
Preparation for scientific research underwater; scientific methods, techniques, operations and specialized equipment; scientific diver training and certification requirements; diving procedures and regulations; diving equipment; diving physiology hyperbaric conditions, fitness, practical diving skills, safety and emergency procedures.

BIOL 474. Histology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201B. Recommended: Biology 212.
Descriptive microscopic anatomy of cells, tissues and organs of mammals with special emphasis on humans.

BIOL 485. Principles of Immunology (3)
Prerequisites: Biology 201A, Chemistry 365, credit or concurrent registration in Biology 366.
Basic areas of immunology to include inflammation, generation of immune response, antibody production, lymphocyte development and function, hypersensitivities and AIDS, major histocompatibility complex and cytokines. Designed to give a basic background in the immune system.

BIOL 490. Undergraduate Honors Research (3)
Prerequisites: Upper division standing with GPA of at least 3.20, four units of Biology 499, and approval of honors research program coordinator.
Experience in designing and carrying out independent research in a laboratory setting plus a written record of experimental design and results in the form of an honors research thesis to be presented at an undergraduate research forum and/or defended before a committee. Does not satisfy laboratory requirement in major. Maximum credit six units.

BIOL 496. Experimental Topics (1-4)
Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 496, 497, 498 courses applicable to a bachelor’s degree.

BIOL 497. Undergraduate Research (1-3)
Fifty hours of research per unit.
Prerequisites: Upper division status in good standing and consent of instructor.
Individual research project, supervised by faculty. Research course with research paper or other presentation of results. Maximum credit six units applicable to general biology major, three units to microbiology major, for any combination of Biology 497 and 499.

BIOL 499. Special Study (1-3)
Fifty hours of activity per unit.
Prerequisites: Upper division status in good standing and consent of instructor.
Individual study, internship, other supervised laboratory or field project or experience. Credit involves 50 hour activity per unit per semester and a report. Maximum credit six units applicable to general biology major, three units applicable to microbiology major, for any combination of Biology 497 and 499.
UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

Writing Requirement: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course is a prerequisite for all upper division biology courses numbered 450 and above.

BIOL 508. Coevolution (3)
Prerequisites: Biology 352 and 354.
Coevolution in interspecific interactions, like herbivory, predation, parasitism, competition, pollination, and mimicry.

BIOL 509. Evolutionary Biology (3)
Two lectures and two hours of activity.
Prerequisites: Biology 352.
Evolutionary biology including genetics of populations, speciation, systematic biology, adaptation, role of development in evolution, evolution of behavior, and comparative biology. Evolutionary biology as the central organizing principle of biology.

BIOL 510. Molecular Evolution (3)
Prerequisites: Biology 352 and 366 or graduate standing.
Molecular evolution including concepts of homology and convergence, the nearly neutral theory of evolution, evolution of new protein function, detecting selection, multi-gene family evolution and evolutionary genomics.

BIOL 511. Evolution of Development (3)
Prerequisites: Biology 352 and 366.
Dynamic relationship between regulatory functions that control development and the evolutionary process, and vice versa, illustrated with evidence derived from developmental, phylogenetic, paleontological, computational, and ecological research. Emphasis on genomic regulatory networks of transcriptional regulatory elements and cell-signaling pathways.

BIOL 512. Evolution and Ecology of Marine Mammals (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 352 and 354.
Evolution of marine mammals including pinniped, cetacean and sirenian evolution, diet and foraging strategies, social organization, reproductive strategies, echolocation, diving physiology, and conservation.

BIOL 514. Biology of the Algae (4)
Three lectures and three hours of laboratory.
Prerequisites: Biology 201A, 201B and six units of upper division coursework in the major.
Evolution, life histories, morphology, physiology, and ecology of micro and macro algae, with attention to both marine and freshwater taxa, and of sea-grasses.

BIOL 515. Marine Invertebrate Biology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A, 201B. Strongly recommended: Completion of three to six upper division units in the major.
Structure and function, ecology, behavior, physiology and phyletic relationships of marine invertebrate animals.

BIOL 517. Marine Ecology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 354.
Ecological concepts as applied to pelagic and benthic marine organisms and their environment. Field and laboratory experience in oceanographic techniques, particularly the coastal environment.

BIOL 523. Herpetology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A, 201B. Recommended: Biology 352.
Evolution, systematics, distribution, and ecology of amphibians and reptiles of the world.

BIOL 524. Ornithology (4)
Two lectures, six hours of laboratory or field excursions, and a field project.
Prerequisites: Biology 201A, 201B. Strongly recommended: Completion of three to six upper division units in the major.
Study and identification of birds, especially those of the Pacific Coast and the San Diego region.

BIOL 525. Mammalogy (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A, 201B. Strongly recommended: Completion of three to six upper division units in the major.
Evolution, systematics, distribution and ecology of mammals of the world.

BIOL 526. Terrestrial Arthropod Biology (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A, 201B. Strongly recommended: Biology 352 and completion of three to six upper division units in the major.
Structure, function, behavior, ecology, evolution, and relationships of major groups of terrestrial arthropods, including insects, arachnids, and myriapods. Identification and natural history of southern California diversity.

BIOL 527. Animal Behavior (4)
Three lectures and three hours of laboratory.
Prerequisites: Biology 215; Biology 201B or Psychology 211 and 260 for psychology majors.
Biological bases of animal behavior with emphasis on the ethological approach, including the evolution and adaptive significance of behavior.

BIOL 528. Microbial Ecology (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 201A and 201B. Recommended: Biology 350 and 354.
Roles of microorganisms in soil, aquatic and marine ecosystems, microbial adaptations to the environment, and interactions within microbial communities and between microbes and multicellular organisms. Laboratory techniques to isolate and study microbes.

BIOL 530. Plant Systematics (4)
Two lectures and three hours of laboratory, field trips.
Prerequisites: Biology 201A, 201B. Strongly recommended: Completion of three to six upper division units in the major.
Plant description, identification, classification, and nomenclature with emphasis on evolutionary patterns, interdisciplinary data acquisition, and phylogenetic analysis.

BIOL 531. Taxonomy of California Plants (4)
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A and 201B. Fundamentals of plant taxonomy with emphasis on identification of plants native and naturalized to California. Plant collecting techniques. Field trips are required.

BIOL 535. Plant Ecology (4)
Three lectures and three hours of laboratory.
Prerequisites: Biology 201A and 201B. Strongly recommended: Biology 354.
Plant adaptation and response to living and non-living environment including aspects of plant evolution, demography, ecophysiology community and ecosystem dynamics and soil-plant relationships. Terrestrial systems emphasized.

BIOL 537. Population Modeling for Conservation (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 354.
Applied population modeling in context of conservation. How mathematical models can be used to simulate population dynamics of single and multiple species and rank conservation management options.
BIOL 538. Environmental Policy and Regulations (3)  
Prerequisites: Biology 354.  
History of biological conservation and environmental laws; regulations governing biological resources; role of biologists; environmental impact analysis, operation of regulatory and resource agencies; biologists as expert witnesses; wetland protection and mitigation, state heritage programs, role of nongovernmental agencies.

BIOL 540. Conservation Ecology (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Biology 354.  
Human impacts on ecosystems, the resultant endangerment and extinction of plant and animal species, and strategies for the protection and recovery of threatened forms.

BIOL 541. Ecology of Fishes and Fisheries Biology (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Biology 254.  
Ecology of fishes, including environmental constraints, habitats, feeding, behavior, growth, reproduction, biotic interactions, population dynamics and assemblage structure. Fisheries biology concepts, including stock recruitment models, climates and fisheries, density dependence and population regulation, and populations dynamics theory.

BIOL 546. Systematics and Biodiversity (3)  
Two lectures and two hours of activity.  
Prerequisites: Biology 201A, 201B, 352.  
History, philosophy, and practical aspects of systematic biology, emphasizing pervasive role of phylogenetic data in evolutionary biology and other fields, phylogenetic structure of all lifeforms, and geographic patterns of diversity, endemcity and imperilment.

BIOL 549. Microbial Genetics and Physiology (3)  
Prerequisites: Biology 350 or 366.  
Physiology of microbial growth, bacterial structure and function, genetics of bacteriophages and bacteria.

BIOL 551. Recombinant DNA (3)  
Prerequisites: Biology 350, 366, 366L, Chemistry 365, and credit or concurrent registration in Biology 549 or 567.  
Theory and practice of recombinant DNA techniques.

BIOL 554. Molecular Virology (3)  
Prerequisites: Biology 366 and Chemistry 365.  
Molecular aspects of structure, genetics, and replication of viruses, virus-host interactions, pathogenesis of virus infections, diagnostic virology, and antiviral vaccines and drugs; emphasis on human pathogens.

BIOL 555. Principles of Electron Microscopy (1)  
Prerequisites: Biology 201B and Physics 180B.  
Principles of scanning and transmission electron microscopy including theoretical basis of sample preparation.

BIOL 556. Scanning Electron Microscopy Laboratory (2)  
Six hours of laboratory.  
Prerequisites: Credit or concurrent registration in Biology 555.  
Biological specimen preparation and operation of scanning electron microscope.

BIOL 557. Transmission Electron Microscopy Laboratory (3)  
One lecture and six hours of laboratory.  
Prerequisites: Credit or concurrent registration in Biology 555.  
Biological sample preparation and operation of transmission electron microscope.

BIOL 560. Animal Physiology (3)  
Prerequisites: Biology 201A, 201B; Chemistry 365; Physics 180B, 182A, and 182B.  
Physiology of vertebrate and invertebrate animals with emphasis on diversity of solutions to physiological problems and on functional integration of organ systems.

BIOL 561. Radiation Biology (3)  
Prerequisites: Biology 201A and 201B; Physics 180B, 182A, and 182B. Recommended: Biology 366.  
Principles underlying radiological reactions of ionizing radiations. Effects of ionizing radiations at the biochemical, cell, organ, and organism levels.

BIOL 567. Advanced Biochemistry, Cellular, and Molecular Biology (4)  
Prerequisites: Biology 366 and Chemistry 365.  
Advanced concepts of cellular biology, molecular biology, and biochemistry. (Formerly numbered Biology 467.)

BIOL 567L. Biochemistry, Cellular, and Molecular Biology Laboratory III (2)  
Six hours of laboratory.  
Prerequisites: Biology 366, 366L, credit or concurrent registration in Biology 567. Recommended: Biology 350.  
Intermediate laboratory approaches to biochemistry, cellular biology, and molecular biology at a level appropriate for both advanced undergraduate and graduate students. (Formerly numbered Chemistry 467L.)

BIOL 568. Bioinformatics (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Biology 366.  
Bioinformatics analysis methods and programming skills. Practical bioinformatic software for sequence analysis, bioinformatic algorithms and programming fundamentals.

BIOL 570. Neurobiology (3)  
Prerequisites: Biology 366 or 590 or Psychology 260.  
Structure and function of the nervous system to include cellular and molecular mechanisms underlying neuronal excitability and synaptic function, nervous system development, cellular and systems analysis of sensory, motor and higher brain functions. Emphasis on experimental approaches.

BIOL 575. Molecular Basis of Heart Disease (3)  
Prerequisites: Biology 366 or 590.  
Current literature on the molecular basis of disorders of physiology leading to heart disease.

BIOL 576. Developmental Biology (3)  
Prerequisites: Biology 366. Strongly recommended: Biology 567.  
Fundamental processes of development from fertilized egg to organism. Emphasis on cellular and molecular mechanisms common to development of metazoan organisms.

BIOL 584. Medical Microbiology (3)  
Prerequisites: Biology 350 and 366.  
Major bacterial and viral pathogens; molecular mechanisms of pathogenesis, microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics.

BIOL 585. Cellular and Molecular Immunology (3)  
Prerequisites: Biology 366. Recommended: Credit or concurrent registration in Biology 567 and 567L.  
Cellular and molecular aspects of the immune response. Genetics of immunoglobulins, major histocompatibility complex, lymphocyte development and their manifestations on immune responsiveness, lymphokines immunopathologies including AIDS, and contemporary immunological techniques. Not open to students with credit in Biology 485.

BIOL 590. Physiology of Human Systems (4)  
Three lectures and one hour of discussion.  
Prerequisites: Chemistry 365, Physics 180B, 182B; or for the bioengineering emphasis: Physics 195, 196, 197. Recommended: Biology 366.  
Human physiology presented at both cellular and organ system levels; neurophysiology, muscle physiology, cardiovascular physiology and respiration, kidney function, hormone function and reproduction. For students majoring in a natural science or preprofessional studies.
Business Administration

BIOL 594. Biotechnology Research Rounds (2) Cr/NC
Prerequisites: Biology 366 and credit or concurrent registration in Biology 567.
Research methods in biotechnology community. Speakers from local biotechnology companies and research institutes discuss power and limitations of current research methods being applied to develop new therapeutics. Evaluation of approaches, results, and utility of these technologies. Not applicable to biology or microbiology majors.

BIOL 596. Special Topics in Biology (1-4)
Prerequisites: Consent of instructor.
Advanced selected topics in modern biology. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

BIOL 597A. Univariate Statistical Methods in Biology (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 350 or 352 or 354 or 366.
Application of univariate statistical techniques in biological sciences.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Chemistry (CHEM)
In the Department of Chemistry and Biochemistry
In the College of Sciences

LOWER DIVISION COURSES
CHEM 100. Introduction to General Chemistry with Laboratory (4) [GE]
Three lectures and three hours of laboratory.
Elementary principles of chemistry used to illustrate nature and development of modern scientific thought. Not open to students with credit in Chemistry 105 or 200.

CHEM 102. Introduction to General, Organic, and Biological Chemistry (5) [GE]
Four lectures and three hours of laboratory.
Prerequisite: High school chemistry or Chemistry 100.
Concepts of general, organic, and biological chemistry necessary to understanding human biochemistry and pharmacology, including chemical bonding, stereochemistry, acidity, thermodynamics, carbohydrates, lipids, enzymes, proteins, and nucleic acids. Open only to students applying for entrance to the nursing major.

CHEM 130. Elementary Organic Chemistry (3)
Prerequisites: Chemistry 100 or 200.
Introduction to compounds of carbon including both aliphatic and aromatic substances. Not open to students with credit in Chemistry 231 or 232.

CHEM 160. Introductory Biochemistry (3)
Prerequisite: Chemistry 130.
Compounds of carbon including both aliphatic and aromatic substances. Not open to students with credit in Chemistry 102, 231, or 232. Not open to applicants to the School of Nursing.

CHEM 200. General Chemistry (5)
Three lectures and six hours of laboratory.
Prerequisites: High school chemistry or a grade of C or better in Chemistry 100 and two years of high school algebra.
General principles of chemistry with emphasis on inorganic materials.

CHEM 201. General Chemistry (5)
Three lectures and six hours of laboratory.
Prerequisites: Chemistry 200.
Continuation of Chemistry 200. General principles of chemistry with emphasis on inorganic materials and qualitative analysis.

CHEM 202. General Chemistry for Engineers (4)
Three lectures and three hours of laboratory.
Prerequisites: Two years of high school algebra. High school chemistry or a grade of C or better in Chemistry 100.
General principles of chemistry with emphasis on inorganic and physical chemistry and chemistry basics for engineers. Not open to students with credit in Chemistry 200. Restricted to engineering majors.
CHEM 231. Organic Chemistry (4)
Three lectures and three hours of laboratory.
Prerequisites: Chemistry 201.
Properties and synthesis of organic compounds including reaction mechanisms. First half of a one-year course. Not open to students with credit in Chemistry 232 or 232L.

CHEM 232. Organic Chemistry (3)
Prerequisites: Chemistry 201 and consent of instructor.
Same course as Chemistry 231 without laboratory. Not open to students with credit in Chemistry 231.

CHEM 232L. Organic Chemistry Laboratory (1)
Three hours of laboratory.
Prerequisites: Chemistry 201 and consent of instructor.
Properties and synthesis of organic compounds including methods of separation and purification techniques. Same course as laboratory portion of Chemistry 231. Not open to students with credit in Chemistry 231.

CHEM 251. Analytical Chemistry (5)
Three lectures and six hours of laboratory.
Prerequisites: Chemistry 201 and credit or concurrent registration in Mathematics 122 or 150.
Introduction to the theory and practice of analytical chemistry including gravimetric, volumetric, and instrumental methods.

CHEM 296. Experimental Topics (1–4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

CHEM 299. Special Study (1–4)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

CHEM 300. Mysteries and Molecules (3) [GE]
Prerequisites: Chemistry 100 or completion of General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.
Techniques and case studies of mysteries solved by molecular analysis: chemical and DNA analysis of crime scenes, biochemical explanations of mysterious deaths and accidents, molecular hallmarks of forgery, chemical methods in crime deterrence, chemical causes of fires and structure failure. Not applicable to chemistry majors.

CHEM 308. Chemistry as a Unifying Science (3) [GE]
Prerequisites: Biology 100; Geological Sciences 104 or Natural Science 100; Geological Sciences 412 or Natural Science 412.
Atomic-molecular theory of matter; use of concepts of chemistry to explain observable phenomena in everyday life, including physical properties and chemical changes; connections between chemistry and biology, earth science, and physical science; alternative conceptions about science. Capstone science course for liberal studies majors. Open only to liberal studies majors. Not applicable to chemistry majors.

CHEM 361. Fundamentals of Biochemistry (3)
Prerequisites: Chemistry 231 and 365.
The chemistry of intermediary metabolism and its regulation. Not open to students with credit in Chemistry 562 or 563.

CHEM 365. Biochemistry, Cell and Molecular Biology I (3)
Prerequisites: Biology 201A and Chemistry 231.
Basic concepts of modern integrated biochemistry, cell and molecular biology. Not open to students with credit in Chemistry 361A or 560. Applicable to chemistry major or minor only with approval from department.

CHEM 368. Enzymes and Macromolecular Interactions (1)
Prerequisites: Credit or concurrent registration in Chemistry 365.
Enzymology of bisubstrate reactions, allosteric enzymes and biochemical control mechanisms, enzyme mechanisms, nucleic acid structure, replication, and function, sequencing, PCR, cellular protein synthesis, oligosaccharide synthesis. Not open to students with credit in Chemistry 361A or 560. Applicable to chemistry major or minor only with approval from department.

CHEM 410A. Physical Chemistry (4)
Three lectures and three hours of laboratory.
Prerequisites: Chemistry 231 and 251; Mathematics 252 (Mathematics 150, 151; 252 or Physics 195, 195L, 196, 196L for chemistry teaching major); Physics 195, 195L and 196, 196L. Recommended: Physics 197 and 197L.
Theoretical principles of chemistry with emphasis on mathematical relations. Theory and practice in acquisition and statistical analysis of physical measurements on chemical systems.

CHEM 410B. Physical Chemistry (3)
Three lectures.
Prerequisites: Chemistry 231, 251, 410A; Mathematics 252; Physics 195, 195L and 196, 196L. Recommended: Physics 197 and 197L.
Theoretical principles of chemistry with emphasis on mathematical relations. Theory and practice in acquisition and statistical analysis of physical measurements on chemical systems.

CHEM 417. Advanced Physical Chemistry Laboratory (2)
Six hours of laboratory.
Prerequisites: Chemistry 251, 410A, and credit or concurrent registration in Chemistry 410B.
Experimental physical chemistry. Emphasis on interpretation and statistical evaluation of instrument-derived results, record keeping, report writing, and individual initiative in observing results.

CHEM 427. Inorganic Chemistry Laboratory (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Chemistry 520A.
Laboratory course designed to introduce students to techniques used in synthesis, characterization, and manipulation of inorganic compounds and materials.

CHEM 431. Organic Chemistry (4)
Three lectures and three hours of laboratory.
Prerequisites: Chemistry 231.
Continuation of Chemistry 231. Not open to students with credit in Chemistry 432 and 432L.

CHEM 432. Organic Chemistry (3)
Prerequisites: Chemistry 231 and consent of instructor.
Continuation of Chemistry 431. Same course as Chemistry 431 without laboratory. Not open to students with credit in Chemistry 431.

CHEM 432L. Organic Chemistry Laboratory (1)
Three hours of laboratory.
Prerequisites: Chemistry 231 and consent of instructor.
Continuation of laboratory portion of Chemistry 231. Not open to students with credit in Chemistry 431.

CHEM 457. Instrumental Methods of Chemical Analysis Laboratory (2)
Six hours of laboratory.
Prerequisites: Chemistry 251, 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 550.
Application of instrumental methods of chemical separations and analysis frequently used in all subdisciplines of chemistry.

CHEM 496. Selected Topics in Chemistry (1–4)
Prerequisites: Consent of instructor.
Selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

CHEM 497. Undergraduate Research (1-3) Cr/NC
Prerequisites: Chemistry 231 and 251.
Individual laboratory investigation. Maximum credit six units.
CHEM 498. Senior Project (1-3)
Prerequisites: Three one-year courses in chemistry. Individual literature and/or laboratory investigation and report on a problem. Maximum credit three units.

CHEM 499. Special Study (1-4)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CHEM 510. Advanced Physical Chemistry (3)
Prerequisites: Chemistry 410B. Problems in chemical thermodynamics, statistical mechanics, chemical kinetics, quantum chemistry and molecular structure and spectroscopy, with applications.

CHEM 520A-520B. Inorganic Chemistry (3-3)
Prerequisites: Chemistry 410A. Chemistry 520A is prerequisite to 520B.
Nature of chemical bond and an advanced systematic study of representative and transition elements and their compounds.

CHEM 531. Synthetic Organic Chemistry (3)
Prerequisites: Chemistry 431.
Modern methods, strategies, and mechanisms in advanced organic synthesis. Retrosynthetic analysis of and synthetic routes towards biologically important compounds.

CHEM 537. Organic Qualitative Analysis (4)
Two lectures and six hours of laboratory.
Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A. Recommended: Chemistry 417 and 457.
Chemical, physical, and spectral methods discussed and employed to determine structure of organic compounds. Purification and separation techniques stressed.

CHEM 538. Polymer Science (3) (Same course as Physics 538)
Prerequisites: Chemistry 200 or 202; and Chemistry 410B or Physics 360 or Mechanical Engineering 350 or 352.
Structure, synthesis, physical properties, and utilities of polymers.

CHEM 550. Instrumental Methods of Chemical Analysis (2)
Prerequisites: Chemistry 231 and credit or concurrent registration in Chemistry 410A; concurrent registration in Chemistry 457 for undergraduate students only. Chemical Physics majors can replace the Chemistry 457 corequisite with credit or concurrent registration in Physics 211.
Theory and application of those instrumental methods of chemical separation and analysis most frequently used in all subdisciplines of chemistry.

CHEM 551. Advanced Analytical Chemistry (3)
Prerequisites: Chemistry 550.

CHEM 560. General Biochemistry (3)
Prerequisites: Chemistry 231, credit or concurrent registration in Chemistry 410A and 431.
The structure, function, metabolism, and thermodynamic relationships of chemical entities in living systems. Not open to students with credit in Chemistry 365.

CHEM 562. Intermediary Metabolism (2)
Prerequisites: Chemistry 560 or Chemistry 365 and 368.
Catabolic and biosynthetic pathways of carbohydrate, lipid, amino acid, and nucleotide metabolism; TCA cycle, mitochondrial and chloroplast electron transport chains, ATP generation and their interactions and control. Not open to students with credit in Chemistry 361.

CHEM 563. Nucleic Acid Function and Protein Synthesis (2)
Prerequisites: Chemistry 560 or Chemistry 365 and 368.
DNA replication, RNA transcription, RNA processing, and protein translation, including chemical mechanisms of synthesis and cellular mechanisms of regulating gene expression; genomics, recombinant DNA, and DNA topology. Not open to students with credit in Chemistry 361.

CHEM 564. Receptor Biochemistry and Protein Modification (2)
Prerequisites: Chemistry 560 or Chemistry 365 and 368.
Biochemical study of receptors, second messengers, and cellular proteins that participate in extracellular and intracellular communication, with focus on protein structures, post-translational modifications, and biochemical mechanisms that regulate receptors and effector enzymes.

CHEM 567. Environmental Chemistry (3)
One lecture and six hours of laboratory.
Prerequisites: Chemistry 560.
Theory and practice of procedures used in study of life at molecular level. Includes purification and characterization of enzymes, isolation of cell components, and use of radioactive tracer techniques.

CHEM 571. Environmental Chemistry (3)
Prerequisites: Chemistry 231 and 251; consent of instructor for all other majors.
Fundamentals of chemistry applied to environmental problems. Chemistry of ecosystems; analysis of natural constituents and pollutants; sampling methods; transport of contaminants; regulations and public policy.

CHEM 596. Advanced Special Topics in Chemistry (1-3)
Prerequisites: Consent of instructor.
Advanced selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 599 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Chicana and Chicano Studies (CCS)
In the College of Arts and Letters

LOWER DIVISION COURSES

CCS 100. Chicana and Chicano Heritage (3) [GE]
Cultural achievements and thought of Spanish speaking peoples of North America; development of aesthetic and ethical values. North American intellectual history and influence of philosophical orientations native and Mestizo peoples. Implications for social change.

CCS 110. Introduction to Chicana and Chicano Studies (3)

CCS 111A. Oral Communication (3) [GE]
Training in the process of oral (speech) expression; addressing the barrio: formal delivery. Chicana and Chicano Studies 111A is equivalent to Communication 103. Not open to students with credit in Africana Studies 140 or Communication 103 or 204.
CCS 111B. Written Communication (3) [GE]
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; or proof of credit (CR) in Rhetoric and Writing Studies 92A or 92B or 97. Training for students from Mexican American backgrounds in the process of written expression. English grammar and composition; the essay, the term paper. Chicana and Chicano Studies 111B is equivalent to Rhetoric and Writing Studies 100. Not open to students with credit in Africana Studies 120 or English 100 or Linguistics 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

CCS 120A-120B. Chicana and Chicano Role in the American Political System (3-3) [AI]
Semester I: Relationship between Chicana and Chicano community and American political system. Semester II: The Chicana and Chicano in relation to city, county, and state institutions in California. This year-long course satisfies the graduation requirement in American Institutions.

CCS 141A-141B. History of the United States (3-3) [AI]
(Selected sections of Chicana and Chicano Studies 141A offered as distance education)
Spanish, Mexican, and Chicano influences on US history. Semester I: Comparative development of US and Mexico to 1865. Semester II: Mexican Americans in US history; US and Mexican national histories compared from 1865 to the present. This year-long course satisfies the graduation requirement in American Institutions.

CCS 150. Critical Issues in Chicana Studies (3)
Critical themes in Chicana feminist scholarship: power and resistance; work, family, and culture; cultural representations and presentations; social and biological reproduction.

CCS 200. Intermediate Expository Research and Writing (3) [GE]
Especially designed for bilingual/bicultural students. Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Chicana and Chicano Studies 111B or Africana Studies 120 or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript. Intermediate composition. Practice in reading, writing, and critical thinking using interdisciplinary sources. Research skills using primary and secondary sources. Argumentative writing skills. Not open to students with credit in Africana Studies 120 or English 100 or General Studies 260D, Linguistics 200, or Rhetoric and Writing Studies 200.

CCS 255. Introduction to Nahuatl (3)

CCS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Interested for Undergraduates)

CCS 301. Political Economy of the Chicano People (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Chicana and Chicano Studies 110. Political and economic roots of the oppression and exploitation of the Chicano from historical, institutional and theoretical points of view. Parallels between the experience of the Chicano and other Hispanic groups.

CCS 303. Chicana and Chicano Community Studies (3) [GE]

CCS 306. Mexican Immigration (3)
Immigration from Mexico in the context of US immigration history and policies. Comparative study of political, economic, and cultural factors. Undocumented immigration and current US law.

CCS 310. Mexican and Chicano Music (3) [GE]
(Selected sections offered as distance education)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Humanities required for non-majors. Music of Mexico and the Southwest including folk dances appropriate for children and adults. Emphasis on the corrido, its history and development in Mexico and the US. Course will be taught bilingually.

CCS 320. Chicana and Chicano Life Styles (3) [GE]

CCS 335. Chicana and Chicano Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Ideas, forms, history of significant Chicana and Chicano prose, poetry and other literary genres.

CCS 340. Mexican Women in Historical Perspective: PreColumbian to 1848 (3)
Prerequisites recommended: Chicana and Chicano Studies 111B and upper division standing.
US-Mexican history or Mexican women from PreColumbian Mexican era to annexation of Mexico’s northern territories by US. Theoretical and methodological issues appraised as are gender-based norms, class and racial distinctions, and significance of female historical figures to Mexican identity.

CCS 350A-350B. Chicana and Chicano History (3-3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Semester I: Review of indigenous origins; Hispanic institutions and northward expansion; the Mexican Republic; attention to women’s socio-economic status and significance. Semester II: US encroachment and the US/Mexican War; Chicana and Chicano contributions; the multilingual and multicultural Southwest.

CCS 355. The United States-Mexico International Border (3) [GE]
Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. History, culture, economics, and politics of US/Mexico border region. Theories and policy issues surrounding development of region; local regional problems and major agencies, institutions, organizations addressing these problems.

CCS 375. US/Mexico Border History (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Chicana and Chicano Studies 110.

Historical problems and movements in the US/Mexico border region, in particular those impacting Spanish-speaking populations on both sides of the border. Contemporary border issues from a historical perspective.
Child and Family Development

**CFD 135. Principles of Family Development (3) [GE]**
Intimacy, compatibility, conflict, and communication in relationship formation and adjustment.

**CFD 170. Child and Adolescent Development from a Cultural Perspective (3) [GE]**
(Same course as Teacher Education 170)
Theories of human development using a cultural/ecological framework applied to case studies and direct observations. Open only to liberal studies majors. Not open to students with credit in Child and Family Development 270, Psychology 230, or Teacher Education 170.

**CFD 270. Human Development Across the Lifespan (3)**
Prerequisites: Psychology 101; concurrent registration in Child and Family Development 270L, for one unit. Proof of completion of prerequisite required: Copy of transcript.
Development from conception to old age, emphasis on biological, cognitive, and socio-emotional development. Not open to students with credit in Child and Family Development 170, Psychology 230, or Teacher Education 170.

**CFD 270L. Principles of Child Development Laboratory (1-3)**
Three hours of laboratory for each unit.
Prerequisites: Psychology 101; credit or concurrent registration in Child and Family Development 270. Proof of completion of prerequisite required: Copy of transcript.
Multiple methods of observing and recording individual and group behavior of children. Observations required. May be repeated with consent of instructor. Maximum credit three units.

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**CCS 367. Chicana and Chicano Culture and Thought (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations I.C., Humanities required for nonmajors.
Intellectual history of the Chicanas and Chicanos as a synthesis of different cultural traditions and perspectives. Philosophical concepts from pre-Cortesian times to the present.

**CCS 380. US/Mexico Borderlands Folklore (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations I.C., Humanities required for nonmajors. Recommended: Chicana and Chicano Studies 110.
Border folklore, its complexities and dynamics via myths, rituals, legends, sayings, corridos (ballads), and literature of Chicanas and Mexicanos in the US/Mexico border region.

**CCS 390W. Capstone: Critical Discourse in Chicana and Chicano Studies (3)**
Prerequisite: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units, completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in WRS 280, 281; and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test scores or verification of exemption; copy of transcript.
A writing workshop. Mutually exclusive. Exploration of new form and content in Mexican American prose. Maximum credit six units.

**CCS 400. Mexican Images in Film (3) [GE]**
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations I.C., Humanities required for nonmajors.

**CCS 410. Capstone: Critical Discourse in Chicana and Chicano Studies (3)**
Prerequisites: Senior standing. Open only to Chicanas and Chicano Studies majors. Ethical and substantive issues and themes pertinent to borderland communities in US/Mexico region.

**CCS 450. Contemporary Chicana and Chicano Theatre (3) [GE]**
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations I.C., Humanities required for nonmajors.
Contemporary Chicano theatre including works by people of Puerto Rican, Cuban American, and other Latin American origins in the United States.

**CCS 480. Chicanas and Chicanos and the Schools (3)**
Prerequisite recommended: Chicana and Chicano Studies 110.
The Chicanas and Chicanos in the school system from preschool through high school with emphasis on social, intellectual and emotional growth and development.

**CCS 496. Selected Topics in Chicana and Chicano Studies (1-3)**
Selected topics in Chicanas and Chicano studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

**CCS 497. Senior Thesis (3)**
Prerequisites: Senior standing. Open only to Chicanas and Chicano Studies majors and consent of department.
Faculty supervised independent study culminating in a research paper or project on history, ethos, and social perspectives of Chicanas and Chicano studies and indicative of scholarly interest in continued learning.

**CCS 498. Internship in US-Mexico Border (3)**
Nine to twelve hours per week plus four class meetings.
Prerequisites: Upper division standing, Chicana and Chicano Studies 355, and consent of instructor.
Internship in public or private sector institution, agency, or organization engaged in US-Mexico binational relations or border-related issues. Meets requirements for United States-Mexico Border Studies certificate program.

**CCS 499. Special Study (1-3)**
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

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**UPPER DIVISION COURSES**
*Also Acceptable for Advanced Degrees*

**CCS 545. United States-Mexico Transborder Populations and Social Change (3)**
(Same course as Sociology 554)
Prerequisites: Sociology 101. Recommended: Chicana and Chicano Studies 355 and/or Sociology 350.

**CCS 595. US/Mexico Border Field Experience (3)**
Prerequisites: Six upper division units in Chicanas and Chicano studies or graduate standing. Working knowledge of Spanish required.

**CCS 596. Topics in Chicana and Chicano Studies (1-3)**
Prerequisites: Consent of instructor.
Advanced topics in Chicana and Chicano studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

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**GRADUATE COURSES**
*Refer to the Graduate Bulletin.*
CFD 272. Child, Family, Community (3)
Prerequisites: Child and Family Development 135, 270, 270L (one unit); Sociology 101. Proof of completion of prerequisites required: Copy of transcript.
Individual and family needs and the social institutions and agencies attempting to meet these needs. Social issues, service programs, program analyses, and program effectiveness emphasized.

CFD 275. Developmentally Appropriate Practices (3)
Two lectures and two hours of activity.
Prerequisites: Child and Family Development 270, 270L (one unit). Proof of completion of prerequisites required: Copy of transcript.
Design, implementation, and evaluation of developmentally appropriate practices for children and families.

CFD 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

CFD 335. Interaction in Families (3)
Prerequisites: Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Family interaction patterns throughout the life cycle in a multicultural society. Emphasis on theories, research findings, and family practices.

CFD 370. Research, Assessment, and Evaluation of Children and Families (3)
Prerequisites: Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Methods for measuring child, caregiver, and family behavior. Evaluation of reliability and validity. Includes research design, sampling techniques, data collection strategies, and values/ethics.

CFD 375A. Human Development: Infant/Toddler (2)
Prerequisites: Credit or concurrent registration in Child and Family Development 378A or 378B or 378D. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Physiological, psychological, cognitive, and socio-emotional development of the human organism in cultural contexts from conception to three years of age. (Formerly numbered Child and Family Development 570.)

CFD 375B. Human Development: Early/Middle Childhood (2)
Prerequisites: Credit or concurrent registration in Child and Family Development 378B or 378C or 378D. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Physiological, psychological, cognitive, and socio-emotional development of the human organism in cultural contexts from age 3 to age 12. Not open to students with credit in Child and Family Development 371 and 375.

CFD 375C. Human Development: Adolescence/Adulthood (2)
Prerequisites: Credit or concurrent registration in Child and Family Development 378C or 378D. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Physiological, psychological, cognitive, and socio-emotional development of the human organism in cultural contexts from age 12 to old age. Not open to students with credit in Child and Family Development 371 and 375.

CFD 377. Adult Supervision in Child and Family Development Programs (3)
Prerequisites: Child and Family Development 375A, 375B; and two units selected from Child and Family Development 378A, 378B, or 378D. Proof of completion of prerequisites required: Copy of transcript.
Development of leadership, communication, conflict resolution, and supervision of professionals in child and family development programs.

CFD 378A. Laboratory Experiences: Infants/Toddlers (1-3) Cr/NC
Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375A. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Directed experiences in mainstream settings for infants and toddlers. Designing and implementing developmentally appropriate activities. Maximum credit three units with consent of instructor. (Formerly numbered Child and Family Development 376A.)

CFD 378B. Laboratory Experiences: Preschool/Kindergarten (1-3) Cr/NC
Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375B. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Directed experiences in mainstream settings for children ages 3 to 6, preschool, and kindergarten children. Designing and implementing developmentally appropriate activities. Maximum credit three units with consent of instructor. Not to exceed three units of credit in any combination with Child and Family Development 376A completed prior to fall 2006.

CFD 378C. Laboratory Experiences: Age 6 Through Adolescence (1-3) Cr/NC
Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375B or 375C. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Directed experiences in mainstream settings for children age 6 through adolescence. Designing and implementing developmentally appropriate activities. Maximum credit three units with consent of instructor. (Formerly numbered Child and Family Development 376B.)

CFD 378D. Laboratory Experiences with Children and Families (1-3) Cr/NC
Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375A, 375B, or 375C. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Directed experiences in intergenerational programs. Designing and implementing developmentally appropriate interactions for children and their families/caregivers. Maximum credit three units with consent of instructor. (Formerly numbered Child and Family Development 376C.)

CFD 380. Early Literacy Development and School Readiness (3)
Prerequisites: Child and Family Development 375A and 375B; and Child and Family Development 378A or 378B or 378D. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Early development of language, baby signs, literacy, and school readiness. Focus on brain, cognition, and socio-emotional development. Applications of developmentally appropriate practice to enhance literacy and school readiness.
CFD 477. Administration of Child Development Programs (3)
Prerequisites: Child and Family Development 375A, 375B, 380; and two units selected from Child and Family Development 378A, 378B, or 378D. Proof of completion of prerequisite required: Copy of transcript.
Programs for young children: design, implementation, and evaluation. Research applications and legal requirements for public and private sectors.

CFD 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

CFD 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CFD 536. Divorce and Remarriage (3)
Prerequisites: Child and Family Development 335 and Sociology 101. Proof of completion of prerequisites required: Copy of transcript.
Integration of family theories and research findings. Emphasis on adjustment to divorce and remarriage throughout life cycles, across cultures, social classes, and ethnicities.

CFD 537. Child Abuse and Family Violence (3)
Multidisciplinary approach to child abuse and family violence including maltreatment, mistreatment, neglect, sexual abuse.

CFD 560. Theories in Socio-Emotional Development (3)
Socio-emotional development from infancy to adulthood. Theory of mind, emotional intelligence, and relationship-based development.

CFD 575. Public Policy and Professional Ethics in Child and Family Development (3)
Public policy and professional ethics as applied to child and family development, programs, and research.

CFD 577. Advanced Administration of Child Development Programs (3)
Prerequisites: Child and Family Development 477. Proof of completion of prerequisite required: Copy of transcript.
Problem analysis and development of successful organizational strategies for child development program delivery. Leadership, effective communication, social and ethical issues from a multicultural perspective.

CFD 578. Conflict Resolution Across the Life Span (4)
Three lectures and three hours of laboratory.
Prerequisites: Child and Family Development 335, 370, 375A, 375B, 375C, two units from Child and Family Development 378A, 378B, 378C, 378D, and Child and Family Development 537 and 560 with an overall grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Theories of conflict development and resolution across lifespan. Parenting styles, discipline, behavior and class management, and conflict resolution techniques used in relationships. Directed experiences using conflict resolution techniques in various settings.

CFD 590. Children with Special Needs (4)
Three lectures and three hours of laboratory.
Prerequisites: Child and Family Development 270 or Psychology 230, and completion of 12 upper division units in child and family development with a grade of C (2.0) or better for majors; consent of instructor for graduate students. Proof of completion of prerequisites required: Copy of transcript.
Adaptive and maladaptive processes throughout life span with emphasis on emotional, psychological, and physical disorders. Etiology, development, and adjustment. Directed experience with special needs individuals and their families.

CFD 596. Advanced Studies in Child and Family Development (1-6)
Prerequisites: Nine upper division units in child and family development.
Advanced study of selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Chinese (CHIN)

In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES
Native speakers of Mandarin Chinese will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in Chinese are taught in Chinese.
No credit will be given for lower division courses taken after successfully completing any upper division Chinese course taken in Chinese.
No credit will be given for Chinese 101, 102, 201, 202, 301, and 302 taken out of sequence or concurrently.

CHIN 101. Elementary Chinese I (5) [GE]
Five lectures and one hour of laboratory.
Rudiments of Mandarin pronunciation; listening, speaking, reading, and writing with emphasis on communicative ability; acquisition of the most useful phrases and vocabulary items, and over 300 characters; familiarity with basic sentence structures of Mandarin; information on Chinese culture. Not open to students who have completed three years of high school Chinese unless the third course was completed five or more years ago. See Class Schedule for appropriate section based on your background in Chinese.

CHIN 102. Elementary Chinese II (5) [GE]
Five lectures and one hour of laboratory.
Prerequisites: Chinese 101. Continuation of Chinese 101, including acquisition of an additional 300 characters. Further development of language competence. Not open to students who have completed four years of high school Chinese unless the fourth course was completed five or more years ago. See Class Schedule for appropriate section based on your background in Chinese.
CHIN 201. Intermediate Chinese I (5) [GE]
Five lectures and one hour of laboratory.
Prerequisites: Chinese 102 and completion of the General Education requirement in Foundations II.C., Humanities.
Development of facility to comprehend and produce spoken Chinese. Acquisition of advanced language structures and an additional 400 characters. Emphasis on connected discourse. See Class Schedule for appropriate section based on your background in Chinese.

CHIN 202. Intermediate Chinese II (5) [GE]
Five lectures and one hour of laboratory.
Prerequisites: Chinese 201 and completion of the General Education requirement in Foundations II.C., Humanities.
Continuation of Chinese 201. Reading of contemporary work and writing of short passages in Chinese. Acquisition of an additional 400 characters. See Class Schedule for appropriate section based on your background in Chinese.

CHIN 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

All upper division courses in Chinese are taught in Chinese unless otherwise stated.

No credit will be given for Chinese 301 and 302 taken out of sequence.

CHIN 301. Advanced Chinese I (3) [GE]
Prerequisites: Chinese 202 and completion of the General Education requirement in Foundations II.C., Humanities.
Greater facility in oral expression and writing for practical purposes; exposure to various styles of language; newspaper and media Chinese; elements of literary and classical language.

CHIN 302. Advanced Chinese II (3) [GE]
Prerequisites: Chinese 301 and completion of the General Education requirement in Foundations II.C., Humanities.
Continuation of Chinese 301. Writing paragraphs and longer expository texts. Reading modern and classical literature.

CHIN 352. Aspects of Chinese Language (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities. Strongly recommended: A course in foreign language or linguistics.
Relationship with other languages; dialects, their development and relationship to Mandarin; writing system and its evolution; Romanization schemes; structural and socio-cultural aspects, especially as they differ from English; unique problems of learning the language. Taught in English.

CHIN 431. Advanced Conversational Chinese (3)
Prerequisites: Credit or concurrent registration in Chinese 302.
Conversation practice on practical, social, and cultural topics, with aid of spoken language materials such as plays and videotapes; learning conversational strategies and stylistic features.

CHIN 433. Newspaper Chinese (3)
Prerequisites: Credit or concurrent registration in Chinese 302.
Developing reading skills; cultural, historical, and linguistic information for understanding of Newspaper Chinese. Conventions, special structures, and vocabulary; reading strategies such as skimming and scanning; background information on idioms and literary allusions used in newspapers.

CHIN 434. Business Chinese (3)
Prerequisites: Credit or concurrent registration in Chinese 302.
Developing ability to function in Chinese business environment; familiarity with business correspondence, telecommunication, advertising, business terminology and stylistic features, information on intercultural communication, social and cultural background.

CHIN 450. Readings in Chinese Civilization (3)
Prerequisites: Chinese 302.
Readings in Chinese from areas such as philosophy, religion, history, geography, folk tales, and legends. Film and video presentations to enhance a greater understanding and appreciation of Chinese civilization.

CHIN 451. Readings in Modern Chinese Literature (3)
Prerequisites: Chinese 302.
Fiction, prose, poems, and plays written after May Fourth Movement in 1911, which marked beginning of vernacular literature.

CHIN 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

CIV E 100. Introduction to Civil Engineering (1)
Introduction to diverse field of civil and environmental engineering to include structural, geotechnical, water resources, transportation, construction engineering and management, and environmental engineering. Legal, ethical, and international dimensions of the profession.

CIV E 120. Computer Applications in Civil/Environmental Engineering and Construction (3)
Prerequisites: Credit or concurrent registration in Mathematics 150.
Computer tools for civil engineering. Use of spreadsheets, programming, mathematical analysis programs, presentation, and graphics programs.

CIV E 121. Computer Graphics for the Built Environment (3)
Prerequisites: Civil Engineering 120.
Computer aided design for civil engineering applications (AutoCAD).

CIV E 160. Statistical Methods for the Built Environment (3)
Prerequisites: Mathematics 141.
Application of statistical methods to civil and environmental engineering problems in construction, hydrology, water quality, air pollution, and other related areas. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Civil Engineering 160; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250.

CIV E 218. Surveying for Civil Engineering and Construction (3)
Two lectures and three hours of laboratory.
Prerequisites: Civil Engineering 160 and Mathematics 151.

CIV E 220. Civil and Environmental Engineering Computer Applications III (3)
Prerequisites: Civil Engineering 121.
Graphical information systems (GIS), specialized civil engineering software, advanced problem solving.
CIV E 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

CIV E 301. Introduction to Solid Mechanics (3)

CIV E 302. Solid Mechanics Laboratory (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Civil Engineering 301. Laboratory studies in solid mechanics. Experimental stress analysis. Experimental confirmation of theory.

CIV E 321. Structural Analysis I (3)
Prerequisites: Civil Engineering 301 and 302. Analysis of beams, frames, trusses, and three-dimensional frameworks. Influence lines; deflections; introduction to statically indeterminate structures and moment distribution.

CIV E 401. Civil Engineering and Society (1)
Prerequisites: Senior standing in civil engineering. Role of civil engineers in society. Historical, political, esthetic, and philosophical perspectives on civil engineering. Contemporary issues involving civil engineering.

CIV E 421. Reinforced Concrete Design (3)
Prerequisites: Civil Engineering 321. Properties and characteristics of reinforced concrete; design of structural components. Introduction to plastic theory and limit design.

CIV E 423. Timber Design (2)
Prerequisites: Civil Engineering 321. Physical and mechanical properties of wood. Sawn lumber, glulam, plywood. Design of various types of wood structures. Connection design.

CIV E 444. Applied Hydraulics (3)
Prerequisites: Engineering Mechanics 340. Open channel and pressure conduit flow, pumps and turbines, hydroelectric power, flood control, and water law.

CIV E 445. Applied Hydrology (3)
Prerequisites: Civil Engineering 444. Basic hydrologic principles, hydrologic measurements, small and midsize catchment hydrology, frequency analysis, regional analysis, reservoir, stream channel and catchment routing, hydrologic design.

CIV E 462. Geotechnical Engineering (3)

CIV E 463. Geotechnical Engineering Laboratory (1)
Three hours of laboratory.
Prerequisites: Concurrent registration in Civil Engineering 462. Laboratory procedures of soil testing for geotechnical and environmental engineering problems.

CIV E 465. Foundation Engineering and Earth Retaining Structures (3)
Prerequisites: Civil Engineering 462 and 463. Soil mechanics theories applied to design of shallow and deep foundations; lateral pressure of soils, design of retaining walls.

CIV E 481. Transportation Engineering (3)
Prerequisites: Civil Engineering 218. Physical design of transportation facilities, traffic analysis and control for different modes, planning and demand analysis, introduction to environmental impacts of transportation systems and intelligent transportation systems.

CIV E 482. Highway Engineering (3)
Two lectures and three hours of laboratory.
Prerequisites: Civil Engineering 481. Highway design, facility sizing, geometric design, drainage, earthwork, pavement design, traffic control devices, safety and environmental considerations.

CIV E 491. Construction Methods (3)
Prerequisites: Civil Engineering 321. Components and methods of construction including earthwork; foundations; wood, steel, and concrete construction; roofing and cladding; interior construction.

CIV E 492. Construction Engineering (3)
Prerequisites: Civil Engineering 491 and Construction Engineering 430. Project oriented. Cost estimating; alternative cost-saving changes; critical path scheduling.

CIV E 495. Capstone Design Project (3)
One lecture and six hours of laboratory.
Prerequisites: For civil engineering majors: Credit or concurrent registration in Civil Engineering 321, 444, 462, 481, and Environmental Engineering 355. At least three of these courses must be completed prior to enrolling in this course. For environmental engineering majors: Construction Engineering 430 and credit or concurrent registration in Environmental Engineering 455, 554, 556, 558. At least three of these courses must be completed prior to enrolling in this course. For construction engineering majors, credit or concurrent registration in Construction Engineering 480 and 490. Application of engineering principles and design techniques to the design of civil engineering projects.

CIV E 496. Advanced Civil Engineering Topics (1-3)
Prerequisites: Minimum grade point average of 3.0 and consent of instructor. Modern developments in civil engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

CIV E 499. Special Study (1-3) Cr/NC
Prerequisites: Minimum grade point average of 3.0 and consent of instructor. Individual study in the area of civil engineering. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CIV E 521. Structural Analysis II (3)

CIV E 525. Design of Steel Structures (3)
Prerequisites: Civil Engineering 321. Mechanical behavior of structural steel. Design of steel beams, girders, columns and members subjected to combined stresses. Design of various types of connections of steel structures; plate girders, continuous beams and rigid frames.

CIV E 528. Masonry Structures Design (3)
Prerequisites: Civil Engineering 301 and 321. Analysis and design of masonry beams, retaining walls, shear walls, bearing walls, and columns. Use of allowable stress and strength design methods. Design project, including structural system analysis and lateral design of masonry buildings.
CIV E 530. Open Channel Hydraulics (3)
Prerequisites: Civil Engineering 444.
Principles of open channel flow; analysis and problems of critical, uniform, gradually-varied, and rapidly-varied flows, design and environmental problems; computer simulations and applications; and culvert hydraulics.

CIV E 580. Traffic Engineering Design (3)
Prerequisites: Civil Engineering 481.
Sizing and configuration of highway facilities based on capacity analysis. Traffic signal design, impact and mitigation studies, parking, safety design.

CIV E 596. Advanced Civil Engineering Topics (1-3)
Prerequisites: Minimum grade point average of 3.0 and consent of instructor.
Modern developments in civil engineering. May be repeated with new content. See Class Schedule for specific content. Maximum credit of six units for any combination of Civil Engineering 496, 499 and 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

For additional courses which are electives in the civil engineering program, refer to "Environmental Engineering" in this section of the catalog.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Classics (CLASS)
In the Department of Classics and Humanities
In the College of Arts and Letters

LOWER DIVISION COURSES
Classics includes courses in Greek and Latin as well as non-language courses. Greek course numbers have a G suffix; Latin courses have an L suffix.

No credit will be given for Classics 101G, 202G, 303G, 304G taken out of sequence.

No credit will be given for Classics 101L, 202L, 303L, 304L taken out of sequence.

CLASS 101G. Ancient Greek I (5) [GE]
Beginning classical Greek. Basic grammar, vocabulary. Not open to students who have completed three years of high school ancient Greek unless the third course was completed five or more years ago. Not open to students with credit in Classics 250G.

CLASS 101L. Latin I (5) [GE]
Beginning classical Latin. Basic grammar, vocabulary. Not open to students who have completed three years of high school Latin unless the third course was completed five or more years ago. Not open to students with credit in Classics 250L.

CLASS 120. English Words from Latin and Greek (3) [GE]
Latin and Greek words and bases and their English derivatives. Etymology, word analysis and construction, language history, and structure.

CLASS 140. Heritage of Greece and Rome (3) [GE]
Greek and Roman art, literature, arts, and institutions in the Western tradition.

CLASS 202G. Ancient Greek II (5) [GE]
Prerequisites: Classics 101G.
Continuing classical Greek. Grammar, vocabulary, syntax. Preparation for Classics 303G. Not open to students who have completed four years of high school ancient Greek unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 250G.

CLASS 202L. Latin II (5) [GE]
Prerequisites: Classics 101L.
Continuing classical Latin. Grammar, vocabulary, syntax. Preparation for Classics 303L. Not open to students who have completed four years of high school Latin unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 250L.

CLASS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

CLASS 296L. Experimental Topics in Latin.
CLASS 296G. Experimental Topics in Greek.

CLASS 303G. Reading Greek Prose (3) [GE]
Prerequisites: Classics 202G; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Reading classical prose authors such as Xenophon or Plato in original Greek. Attention to vocabulary, syntax, style, and historical-cultural context.

CLASS 303L. Reading Latin Prose (3) [GE]
Prerequisites: Classics 202L or 250L; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Reading classical prose authors such as Caesar or Cicero in original Latin. Attention to vocabulary, syntax, style, and historical-cultural context.

CLASS 304G. Reading Greek Poetry (3) [GE]
Prerequisites: Classics 303G; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Reading classical poets such as Homer or Euripides in original Greek. Attention to vocabulary, syntax, style, and historical-cultural context.

CLASS 304L. Reading Latin Poetry (3) [GE]
Prerequisites: Classics 303L; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Reading classical poets such as Catullus or Ovid in original Latin. Attention to vocabulary, syntax, style, and historical-cultural context.

CLASS 310. Greek and Roman Myth and Legend (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Rhetoric and Writing Studies 200.
Myths and legends of Greece and Rome in literature, arts, and religion.
Communication

**CLASS 320. Epic and the Novel (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Rhetoric and Writing Studies 200.
Four classic works in English translation: Homer’s Iliad and Odyssey, Vergil’s Aeneid, and Apuleius’ Golden Ass. Literary criticism in historical-cultural contexts.

**CLASS 330. Tragedy and Comedy (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Rhetoric and Writing Studies 200.
Classical dramas in English translation. Playwrights such as Aeschylus, Sophocles, Euripides, Aristophanes, Plautus. Ancient theater, literary criticism.

**CLASS 340. Ancient Greece and Rome (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Rhetoric and Writing Studies 200.
Literary, artistic, and intellectual achievements of the classic world. Great cultural traditions and influences.

**CLASS 350. Classics and Cinema (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Rhetoric and Writing Studies 200.
Classical dramas in English translation. Screenplays compared with Greek and Latin sources in English translation.

**CLASS 496. Topics in Classical Studies (1-4)**
Topics in classical languages, literatures, cultures, and linguistics. May be repeated with new content. See Class Schedule for specific content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**COMM 103. Oral Communication (3) [GE]**
One lecture and two hours of recitation.
Training in fundamental processes of oral expression; method of obtaining and organizing material; outlining; principles of attention and delivery; practice in construction and delivery of various forms of speeches. Not open to students with credit in Africana Studies 140 or Chicana and Chicano Studies 111A.

**COMM 160. Argumentation (3)**
Argument as a form of discourse; organizing, supporting, presenting and refuting arguments in a variety of formats; evaluating argument, including common fallacies in reasoning.

**COMM 201. Communication and Community (3)**
Prerequisites: Communication 103.
Communication as an academic and professional discipline, its associations and journals, history and traditions, relationships to other disciplines, research methodologies, and careers for graduates. (Formerly numbered Communication 305.)

**COMM 204. Advanced Public Speaking (3)**
Prerequisites: Communication 103.
Practice in extemporaneous speaking on subjects of current interest, both national and international, with stress on organization and delivery. Not open to students with credit in Chicana and Chicano Studies 111A.

**COMM 296. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**UPPER DIVISION COURSES**
(Also Acceptable for Advanced Degrees)

**CLASS 599. Special Study (1-3)**
Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor. For 599C: Classics 304L or 304G. For 599G: Classics 304G. For 599L: Classics 304L.
Directed individual study. Maximum credit nine units in any combination of 599C, 599G, 599L.

**COMM 300. Conceptualizing Communication (3)**
Prerequisites: Completion of 45 semester units.
Communication theory, concepts, principles, and practices. Communication as art and process on micro and macro levels, integrates understanding of sources, messages, transmission, and feedback in creating meaning and culture.

**COMM 301. Intercollegiate Speech and Debate Competition (1-2) Cr/NC**
Two hours of activity.
Prerequisite: Communication 103.
Competitive intercollegiate debate and/or individual speaking events. Use of specific argumentation models to comprehensively analyze relevant political and social issues; Group and oral performance stressed. Two weekends of travel to competitive tournaments required. Maximum credit three units toward major; six units toward graduation.

**COMM 307. Communication in Professional Settings (3)**
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Communication principles in professional contexts including interviewing and technical and nontechnical oral presentations. Skill in meeting management.

**COMM 309. Oral Communication Tutoring Laboratory (1-3) Cr/NC**
Prerequisites: Communication 103 with a grade of B or higher and overall grade point average of 2.75 or higher.
Supervised tutoring assistance for oral communication students in speech outline preparation and speech delivery for Communication 103. Maximum credit three units.

**COMM 350. Investigating Communication (3)**
Prerequisites: Completion of 45 semester units.
Study of human communication, from methodological and epistemological perspectives.

**COMM 371. Intercultural Communication (3) [GE]**
Two lectures and one hour of discussion.
Prerequisites: Communication 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Open to majors and nonmajors.
Study of communication with emphasis on influence of cultural background, perception, social organization, language and nonverbal messages in the intercultural communication experience.
COMM 406. Organizational Communication (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
The organization as a communication system; role of the organization in persuasive campaigns; communication strategies and problems within the organizational structure.

COMM 407. Communicative Perspectives on Interviewing (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Application of communicative theory to interviewing situations. Emphasis on perception, source, message, and receiver variables, defensive communication, feedback. Phrasing of questions, ways to enhance respondent participation, and formulation of behavioral objectives. Classroom simulation, supplemented by out-of-class interviews.

COMM 415. Nonverbal Communication (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Theory and research on nonverbal aspects of communication, with emphasis on codes and functions.

COMM 420. Quantitative Methods in Communication (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Quantitative research in communication. Construction and analysis of surveys and experiments.

COMM 421. Health Communication (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Analysis of how people understand, share ideas about, and adjust to health and illness. Personal, interactional, cultural, and political complexities of health beliefs, practices, policies.

COMM 441. Foundations of Critical and Cultural Study (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Central concepts, examples, theories, and experiences of critical studies of communication in culture through cultural, rhetorical, and media literature and cases. (Formerly numbered Communication 355.)

COMM 445. Relational Communication (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Theory and application of effective relational communication principles in both intimate and nonintimate contexts. Theoretical and empirical evidence on communication strategies and behaviors in relationship initiation, development, and termination. Relationship of communication behaviors to relational goals.

COMM 446. Communication and Rhetorical Movements (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Historical perspectives of role of communication in social change in rhetorical movements and social change. (Formerly numbered Communication 545.)

COMM 450. Rhetorical Theory (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Development of rhetorical theory as a mechanism for generating and understanding public discourse. Theories from ancient Greece to the present.

COMM 452. Interaction and Gender (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Contemporary research and theory on communication and gender. Examination of gender as ongoing interactional achievement. Gender displays and myths across diverse relationships, institutions, media, and society.

COMM 462. Ethnography and Communication (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Sequential organization of naturally occurring conversational practices. Reliance on recordings and transcriptions for detailed examinations of interactants’ methods for achieving social actions and organizing interactional occasions. (Formerly numbered Communication 493.)

COMM 465. Conversational Interaction (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Empirical evidence on communication strategies and behaviors in relationship initiation, development, and termination. Relationship of communication behaviors to relational goals.

COMM 470. Argumentation Theory (3)
Prerequisites: Communication 160, 300, 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Approaches to argument and the patterns and problems in argument. Consideration of implications for society. Written and oral reports. (Formerly numbered Communication 360.)

COMM 471. Communication Among U.S. Cultures (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Effects of code systems, sociocultural forces, geographic influences, cultural patterns, ethnolinguistic identities, and acculturation experiences on interethnic and interracial relationships in the United States.

COMM 482. Communication and Politics (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Contemporary political communication events and processes, with a focus on speeches, debates, and campaigns. (Formerly numbered Communication 580.)

COMM 490. Internship (1-3)
Prerequisites: Communication 201, 300, 350; senior standing and 18 units in the major.
Students work at approved agencies off-campus under the combined supervision of agency personnel and instructors. Maximum credit three units. (Formerly numbered Communication 490A.)
Comparative Literature

COMM 491. Group Interaction (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Research, theory, observation of group emergence, development, relationships, interaction, and decision making across diverse settings.

COMM 492. Persuasion (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Key variables and theories in the persuasion process; persuasive sources, messages, receiver variables, propaganda, brainwashing, cognitive, behavioral, and social theories of persuasion. (Formerly numbered Communication 592.)

COMM 495. Communications Capstone: Conceptualizing and Investigating Communication (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Capstone survey, analysis, and comparison of theories, methods, and discipline of communication. (Formerly numbered Communication 410.)

COMM 496. Experimental Topics (1-4)
Experimental topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

COMM 499. Special Study (1-3)
Prerequisites: See Class Schedule footnotes for prerequisites specific to your area of study. Special study contract required prior to enrollment.
Approved individual study, project or research under supervision of faculty member. Maximum credit three units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

COMM 503. Instructional Communication (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Communication messages and strategies as they apply to instructional contexts. Communication within traditional instructional contexts and focus on training programs, adult workshops, and other less traditional information dissemination situations.

COMM 508. Media Literacy (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Role played by video texts in shaping culture including information distribution, entertainment, and socio-cultural influence exercised by television. Emphasis on audience/medium relationship and to developing critical skills.

COMM 555. Conflict Management Communication (3)
Prerequisites: Communication 300 and 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.
Approaches to conflict communication in international, societal, group, institutional, and interpersonal contexts. (Formerly numbered Communication 455.)

COMM 596. Selected Topics (1-4)
Prerequisites: Senior standing or above.
Specialized study in selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 598 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Comparative Literature (C LT)
In the Department of English and Comparative Literature

In the College of Arts and Letters

LOWER DIVISION COURSES
C LT 210. Introduction to Comparative Literature (3)
Introductory study of comparative literature, its current status, its historical development, range of comparative approaches. Generally includes guest presentations by various members of the comparative literature faculty.

C LT 270A-270B. World Literature (3-3) [GE]
Comparative study of selected major works from various continents and cultures, with emphasis on way literature deals with enduring human problems and values. Semester I: prior to 1500; Semester II: since 1500. Comparative Literature 270A is not a prerequisite to 270B, and either may be taken separately.

C LT 296. Topics in Comparative Literature (3)
Introduction to subject matter of comparative studies in literature. Focus on a specific movement, theme, figure, genre, etc. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

C LT 405. The Bible as Literature (3) [GE]
(Same course as English 405)
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Prose and poetry of the King James version.

C LT 440. African Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Comparative study of African literature as well as Black literature of North and South America and the Caribbean; intercontinental influences and the theme of Black identity.

C LT 445. Modern Latin American Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Reading selections from major Latin American authors.

C LT 455. Classical Asian Literature (3) [GE]
Prerequisites: Comparative Literature 270A or 270B or English 220; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Survey of one or more Asian literatures from the classical period of China, Japan, India, Korea, and others.

C LT 460. Modern Asian Literature (3) [GE]
Prerequisites: Comparative Literature 270A or 270B or English 220; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Survey of one or more Asian literatures from the modern period of China, Japan, India, Korea, the Philippines, Vietnam, and others.
C LT 470. Folk Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

C LT 490. Literary Movements (3)
A movement or theme in world literature - such as symbolism, existentialism, revolution, or romantic love. See Class Schedule for specific content.

C LT 499. Special Study (1-3) Cr/NC
Prerequisites: Consent of instructor and approval of department chair.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

NOTE: Prerequisite for all 500-level courses: Six units in literature or three units in literature and three units in a related area appropriate to the course in question.

C LT 512. European Literature Before 1800 (3)
Study of a literary period such as the Middle Ages, Renaissance, or Enlightenment. May be repeated with new content. Maximum credit six units.

C LT 513. Nineteenth Century European Literature (3)
European literature of the nineteenth century or of a more limited period within that century. May be repeated with new content. Maximum credit six units.

C LT 514. European Literature Since 1900 (3)
Study of a literary period such as the Age of Modernism. May be repeated with new content. Maximum credit six units.

C LT 530. Topics in Asian Literature (3)
Specialized study of a selected topic in Asian literature. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

C LT 561. Fiction (3)
A comparative approach to themes and forms in fiction (novel and short story). Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

C LT 562. Drama (3)
Forms and themes in drama. Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

C LT 563. Poetry (3)
A comparative approach to themes and forms in poetry. Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

C LT 571. Literary Use of Legend (3)
Literary treatment of such legendary figures as Don Juan, Faust, and Ulysses, in a wide range of literature and genres. See Class Schedule for specific content.

C LT 577. Major Individual Authors (3)
In-depth study of the works of a major author, such as Dante, Garcia Márquez, Murasaki, or Dostoyevsky. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

C LT 580. Concepts in Comparative Studies (3)
Basic concepts in comparative studies in literature (e.g., influence, movement, figure, genre, etc.); their validity, usefulness, and limitations. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

C LT 594. Topics in Literature and the Arts (3)
Prerequisites: Six upper division units in literature or any of the other arts.

C LT 596. Topics in Comparative Literature (3)
An intensive study of a topic to be selected by the instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

Computer Engineering [COMPE]

In the Department of Electrical and Computer Engineering

NOTE: Prerequisites will be enforced in all undergraduate computer engineering and electrical engineering courses numbered 100 through 599. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

Any course at the 300 level or below must be passed with a grade of C- or better in order to be used as a prerequisite for any subsequent course.

LOWER DIVISION COURSES

COMPE 160. Introduction to Computer Programming (3)
Two lectures and three hours of laboratory.
Prerequisites: Mathematics 150.

COMPE 260. Data Structures and Object-Oriented Programming (3)
Prerequisites: Computer Engineering 160 and Mathematics 245. Data structures using object-oriented programming. Disciplined approach to design, coding, and testing using OOP, teach use and implementation of data abstractions using data structures. Arrays, linked lists, stacks, queues, trees. Sorting, searching, recursive algorithms.

COMPE 270. Digital Systems (3)
Prerequisites: Mathematics 151.
Modelling, analysis and design of digital systems, primarily at the Logic Design level. Combinational and sequential networks. Not open to students with credit in Electrical Engineering 370.
COMPE 271. Computer Organization (3)  
Prerequisites: Computer Engineering 160 and 270.  

UPPER DIVISION COURSES  
(Also Intended for Undergraduates)

COMPE 361. Windows Programming (3)  

COMPE 375. Embedded Systems Programming (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Computer Engineering 271. Embedded system architecture; IO programming using parallel ports, serial ports, timers, and D/A and A/D converters; interrupts and real-time programming; program development and debugging tools; C language and assembler.

COMPE 460. Software Design and Engineering (3)  
Prerequisites: Computer Engineering 260 and 361. Software design and engineering using object-oriented concepts. Object-oriented software development, classes, inheritance, design by abstraction, design patterns, object-oriented application framework, and introduction to concurrent and distributed computing. Application through design case study.

COMPE 470. Digital Circuits (3)  
Prerequisites: Computer Engineering 270.  
Design of digital electronic systems using commercially available high-speed digital devices and circuits.

COMPE 470L. Digital Logic Laboratory (1)  
Three hours of laboratory.  
Prerequisites: Computer Engineering 470 and Electrical Engineering 330L. Hands-on experience in characterization and application of standard digital integrated circuit devices.

COMPE 475. Microprocessors (3)  
Prerequisites: Computer Engineering 375 and 470. Bus design, memory design, interrupt structure, and input/output for microprocessor-based systems.

COMPE 490. Senior Design Project (4)  
Two lectures and six hours of laboratory.  
Prerequisites: Computer Engineering 460, 470L, 475. Supervised capstone design projects to provide an integrative design experience for seniors to include ethics, professionalism, cost-effectiveness, and project management.

COMPE 496. Advanced Computer Engineering Topics (1-3)  
Prerequisites: Consent of instructor.  
Modern developments in computer engineering. See Class Schedule for specific content. Maximum credit nine units for any combination of Computer Engineering 496 and 596 applicable to a bachelor’s degree.

COMPE 499. Special Study (1-3)  
Prerequisites: Approval of project adviser and department chair. Individual study. Maximum credit six units.

UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)

COMPE 560. Computer and Data Networks (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Computer Engineering 271 and Electrical Engineering 410. Wide area and local area networks. Multi-layered protocol models, telephone systems, modems, and network applications.

COMPE 561. Windows Database and Web Programming (3)  
Prerequisites: Computer Engineering 260. Programming applications involving file systems, relational databases, Structured Query Language (SQL), ADO.NET, client-server architecture, multitreading sockets, web servers, web browsers, web services, ASP.NET, Hypertext Markup Language (HTML), and Extensible Markup Language (XML).

COMPE 565. Multimedia Communication Systems (3)  
Prerequisites: Credit or concurrent registration in Computer Engineering 560. Design and implementation of multimedia communication systems. Image compression, JPEG, VQ, cell-B standards. Video and audio compression standards, MPEG, MPEG-2, H.26X, G.72X. Data storage systems and multimedia requirements. Networking requirements and networks as multimedia carriers. Transport and network protocols for carrying multimedia over data networks. Multimedia system design, scheduling, congestion control, traffic shaping, buffer management.

COMPE 571. Real-Time Operating Systems (3)  
Prerequisites: Computer Engineering 260 and 475. Real-time kernel, basic kernel services, threading and synchronization. Preemptive multitreading, mutexes, spin locks; critical sections, priority scheduling, interrupts, RTOS implementation, memory management, task management, intertask communications.

COMPE 572. VLSI Circuit Design (3)  
Prerequisites: Computer Engineering 271 and Electrical Engineering 330L. Design of digital integrated circuits based on CMOS technology; characterization of field effect transistors, transistor level design and simulation of logic gates and subsystems; chip layout, design rules, introduction to processing; ALU architecture.

COMPE 596. Advanced Computer Engineering Topics (1-3)  
Prerequisites: Consent of instructor. Modern developments in computer engineering. May be repeated with new content. See Class Schedule for specific content. Maximum credit of nine units for any combination of Computer Engineering 496 and 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

Computer Science (CS)  
In the College of Sciences

LOWER DIVISION COURSES

CS 100. Fundamental Ideas in Computer Science (3) [GE]  
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.  

CS 105. Visual Basic Programming (3)  
Programming and problem solving using Visual Basic programming language on the PC. Applications to GIS, computer games.

CS 106. Introduction to Computer Programming with FORTRAN (3)  
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.  
Introduction to problem solving on a computer, design of algorithms, and use of FORTRAN language. Extensive programming.

CS 107. Introduction to Computer Programming (3)  
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement. Programming methodology and problem solving. Basic concepts of computer systems, algorithm design and development, data types, program structures. Extensive programming in Java.
CS 108. Intermediate Computer Programming (3)
Prerequisites: Qualification on the Mathematics Departmental Placement Examination, Part IA; and Computer Science 107.
Further training in program design and development. Introduction to data structures: stacks, queues, linear lists, trees, sets, and recursion. Extensive programming in Java.

CS 205. Introduction to Computational Programming and Visualization (3)
Prerequisites: First semester calculus (either Mathematics 120 or 121 or 150).
Problem solving skills for needs of science. Use of computing and software tools of computational science introduced to gain competence in computer communications, programming and visualization. Supervised computer laboratory.

CS 220. UNIX and the C Programming Language (3)
Prerequisites: Computer Science 108.
Introduction to the UNIX operating system: shell programming, major system services and utilities. The C language: its features and their significance in the UNIX programming environment.

CS 237. Machine Organization and Assembly Language (3)
Prerequisites: Computer Science 108.
General concepts of machine and assembly language, data representation, linking and addressing techniques, arrays, subroutines, macros. Extensive assembly language programming.

CS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

CS 299. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

CS 301. Computers and Society (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.
Impact of computers and computing technology on society: applications, benefits, and risks. Topics include privacy, copyright, computer crime, constitutional issues, risks of computer failures, evaluating reliability of computer models, computers in the workplace, trade and communications in the global village. Not open to computer science majors or to students with credit in Computer Science 440.

CS 310. Data Structures (3)
Prerequisites: Computer Science 108 and Mathematics 245.
Representations and operations on basic data structures. Arrays, linked lists, stacks, queues, and recursion; binary search trees and balanced trees; hash tables, dynamic storage management; introduction to graphs. An object oriented programming language will be used.

CS 320. Programming Languages (3)
Prerequisites: Computer Science 108.
Principles of high-level programming languages, including formal techniques for syntax specification and implementation issues. Languages studied should include at least C++, FORTRAN, and lISP.

CS 370. Computer Architecture (3)
Prerequisites: Computer Science 237.
Logic gates, combinational circuits, sequential circuits, memory and bus system, control unit, CPU, exception processing, traps and interrupts, input-output and communication, reduced instruction set computers, use of simulators for analysis and design of computer circuits, and traps/interrupts.

CS 405. Scientific Database Techniques (3)
Prerequisites: Fifteen units of upper division computer science courses.
Designing and carrying out independent research in one of the areas of computer science. Literature search, technical report writing, and oral presentation of results.

CS 490. Senior Seminar (1)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CS 501. Computational Software (3)
Prerequisites: Computer Science 106 and 310.
Design and implementation of software for computational science. Makefiles in UNIX environment, efficient Fortran and C programming, use of common application libraries, file and source code management, software documentation, construction of libraries and applications. Designed for computational science students. Computer science majors must obtain adviser approval.

CS 503. Scientific Database Techniques (3)
Prerequisites: Computer Science 205, 310, and Mathematics 245.
Fundamental data models for handling scientific data, including flat file, indexed compressed files, relational databases, and object oriented databases, and their associated query technologies; e.g. file formats, input/output libraries, string searching, structured query language, object-oriented structured query language, hypertext markup language/ common gateway interface, and other specialized interfaces. Designed for computational science students. Computer science majors must obtain adviser approval. See Computer Science 514.
CS 505. Parallel Computing (3)
Prerequisites: Computer Science 310. Recommended: Computer Science 501.
Motivations and methods of high performance computing. Modern computer architecture characteristics, uniprocessor programming and tuning, shared and distributed memory programming techniques, benchmarking. Designed for computational science students. Computer science majors must obtain consent of advisor.

CS 514. Database Theory and Implementation (3)
Prerequisites: Computer Science 310 and Mathematics 245.
Database systems architecture, storage structures and access techniques. Relational model, relational algebra and calculus, normalization of relations, hierarchical and network models. Current database systems.

CS 520. Advanced Programming Languages (3)
Prerequisites: Computer Science 237, 310, and 320.
Object oriented programming, concurrent programming, logic programming, implementation issues.

CS 524. Compiler Construction (3)
Prerequisites: Computer Science 237, 310, and 320.

CS 530. Systems Programming (3)
Prerequisites: Computer Science 237 and 310.
Design and implementation of system software. Relationship between software design and machine architecture. Topics from assembly, loaders and linkers, macro processors, compilers, debuggers, editors. Introduction to software engineering and review of programming fundamentals and object oriented concepts. Large project in object oriented programming is required. Not acceptable for the M.S. degree in computer science.

CS 532. Software Engineering (3)
Prerequisites: Computer Science 320 and 530.
Theory and methodology of programming complex computer software. Analysis, design, and implementation of programs. Team projects required.

CS 533. Component Based Software Engineering (3)
Prerequisites: Computer Science 310 and 320.
Component based (CB) software development using UML and other design methods. Development of components for use in CB systems; CB software architectures; development of CB systems; comparison of traditional and CB system development methods.

CS 534. Software Measurement (3)
Prerequisites: Computer Science 332.
Basics of software measurement and use of measurement information to ensure quality software and determine software process effectiveness. Software estimation, cost estimation models, definition of various measures, tools to support measurement collection and analysis, analysis techniques, and case studies.

CS 535. Object-Oriented Programming and Design (3)
Prerequisites: Computer Science 310 and 320.
Basic concepts of object-oriented programming; classes, objects, messages, data abstraction, inheritance, encapsulation. Object-oriented design methodology.

CS 537. Component GIS Architectures (3)
Prerequisites: Computer Science 310 or Geography 484.
Customization of Geographic Information Science application development platforms with emphasis on object oriented programming and component architecture. Prominent examples are MapObjects with Visual Basic, MapObjects with Java. Considerable programming effort required, especially in Graphical User Interface development.

CS 540. Software Internationalization (3)
Prerequisites: Computer Science 310.
Principles, techniques, and resources for design and implementation of software localizable to multiple languages and/or cultures, including detailed examination of internationalization features provided by one or more widely used modern programming languages.

CS 541. Online Documentation and Help Systems (3)
Prerequisites: Computer Science 310.
Design, implementation, and maintenance of online documentation and help systems, including authoring principles and standards; theory and practice of single-source content management; survey of available development tools and resources; internationalization; and project management.

CS 542. XML for Multilingual and Multicultural Applications (3)
Prerequisite: Computer Science 310.
Principles, techniques, and resources for designing and utilizing globalized XML documents in multilingual and multicultural information systems.

CS 550. Artificial Intelligence (3)
Prerequisites: Computer Science 108 and either Mathematics 245 or 523.

CS 551. User Interface Environments (3)
Prerequisites: Computer Science 310 and 320.
Design of user-machine interfaces in interactive systems. Problems faced by user of an interactive system; basic issues and principles involved in design and implementation of good and friendly user-machine graphical interfaces.

CS 552. Artificial Intelligence II (3)
Prerequisites: Computer Science 550.
Limitations of symbol-based approach to artificial intelligence from Computer Science 550. Presented alternatives are genetic and probabilistic approaches, connectionist and emergent representation and learning, natural language processing, intelligence measures and cognitive models. Seminal publications shaping these techniques.

CS 553. Neural Networks (3)
Prerequisites: Computer Science 320 and Mathematics 254.
Principles of neural networks, their theory and applications.

CS 556. Robotics: Mathematics, Programming, and Control (3)
Prerequisites: Computer Science 320, Mathematics 254, knowledge of the C programming language.
Robotic systems including manipulators, actuators, sensors, and controllers. Kinematics of planar robots. Design and implementation of robot joint controllers. Robot programming languages and environments, and robot command interfaces.

CS 558. Computer Simulation (3)
Prerequisites: Computer Science 310 and Statistics 550.
Methodology of simulation for discrete and continuous dynamic systems. State-of-the-art programming techniques and languages. Statistical aspects of simulation. Students will design, program, execute, and document a simulation of their choice.

CS 559. Computer Vision (3)
Prerequisites: Computer Science 310 and Mathematics 254.
Algorithms and computer methods for processing of images. Visual perception as a computational problem, image formation, characterization of images, feature extraction, regional and edge detection, computer architectures for machine vision.

CS 560. Algorithms and Their Analysis (3)
Prerequisites: Computer Science 310.
Algorithms for solving frequently occurring problems. Analysis techniques and solutions to recurrence relations. Searching and sorting algorithms. Graph problems (shortest paths, minimal spanning tree, graph search, etc.). NP complete problems. Not acceptable for the M.S. degree in Computer Science.

CS 561. Multimedia Systems (3)
Prerequisites: Computer Science 551.
System aspects of multimedia authoring, browsing, and database subsystem; digital representation for different media; audio and video; operating system support for continuous media applications; architectures; design and implementation of multimedia support systems; use of multimedia technology in software engineering.
CS 562. Automata Theory (3)
Prerequisites: Mathematics 245 or 521A.

CS 570. Operating Systems (3)
Prerequisites: Computer Science 310, 370, and knowledge of the C programming language.
File systems, processes, CPU scheduling, concurrent programming, memory management, protection. Relationship between the operating system and underlying architecture. Not acceptable for the M.S. degree in Computer Science.

CS 572. Microprocessor Architecture (3)
Prerequisites: Computer Science 370 and knowledge of the C programming language.

CS 574. Computer Security (3)
Prerequisites: Computer Science 310; Mathematics 245; Statistics 550; and credit or concurrent registration in Computer Science 570.
Principles of computer security and application of principles to operating systems, database systems, and computer networks. Topics include encryption techniques, access controls, and information flow controls.

CS 576. Computer Networks and Distributed Systems (3)
Prerequisites: Credit or concurrent registration in Computer Science 570.
Basic networking concepts such as seven-layer reference model, transmission media, addressing, subnetting and supernetting, networking devices, LANs and WANs, internetworking, distributed processing, and client-server model. Basic concepts and protocols of TCP/IP protocol suite and basic Internet services.

CS 580. Client-Server Programming (3)
Prerequisites: Computer Science 570 and knowledge of an object-oriented programming language. Recommended: Computer Science 576.
Client-server model, networking protocols for client-server programs, algorithmic issues in client-server programs, client-server protocols, implementing client-server applications.

CS 581. Computational Linguistics (3)
(Same course as Linguistics 581)
Prerequisites: Computer Science 320 or Linguistics 571; Linguistics 570 or Mathematics 245.

CS 582. Introduction to Speech Processing (3)
Prerequisites: Computer Science 310.

CS 596. Advanced Topics in Computer Science (1–4)
Prerequisites: Consent of instructor.
Selected topics in computer science. May be repeated with the approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

For additional courses useful to computer scientists, see:
- Mathematics 541. Introduction to Numerical Analysis and Computing
- Mathematics 542. Introduction to Numerical Solutions of Differential Equations
- Mathematics 561. Applied Graph Theory
- Mathematics 579. Combinatorics

GRADUATE COURSES
Refer to the Graduate Bulletin.

Construction Engineering (CON E)
In the Department of Civil, Construction, and Environmental Engineering
In the College of Engineering

NOTE: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

LOWER DIVISION COURSES
CON E 101. Construction and Culture (3) [GE]
Cultural context of construction, emphasizing its centrality in evolution and expansion of built environments as expressions of ethical and historical value systems. Relationship between culture, geography, construction materials, and built expressions of cultural legacy. Interdependence of built environment and society.

CON E 201. Construction Concepts and Building Codes (3)
Concepts of control and information exchange in construction. Purpose and function of fundamental information flows, function, and development of construction-related codes and standards to protect public health and safety, compliance with requirements, and design using codes.

CON E 280. Construction Methods (3)
One lecture and six hours of laboratory.
Components and methods of construction including earthwork; foundations; wood, steel, and concrete construction; roofing and cladding; interior construction. Field experience in conducting and/or observing construction operations. Concepts of production in a construction setting.

UPPER DIVISION COURSES
(Intended for Undergraduates)
CON E 301. Construction Ethics, Law, and Contracts (3)
Legal and ethical environment of construction. Study of documents and common procedures in construction administration and their legal and ethical contexts for general contractors and subcontractors. Contract documentation, claim in various construction delivery methods.

CON E 310. Analysis and Design of Construction Operations (3)
Prerequisites: Construction Engineering 280.
Properties and methods for use of construction equipment and integration of construction equipment into production system. Assessment of equipment needs and selection. Site utilization and layout planning, incorporating efficiency and safety of operations.

CON E 320. Construction Estimating (3)
Two lectures and three hours of laboratory.
Prerequisites: Credit or concurrent registration in Construction Engineering 310.
Identifying and estimating time and cost requirements for construction operations based on drawings and specifications. Use computer applications for estimating.
Counseling and School Psychology

CON E 401. Construction Planning and Scheduling (3)
Two lectures and three hours of laboratory.
Prerequisites: Construction Engineering 320, Civil Engineering 160.
Fundamentals of scheduling logic including critical path method, deterministic and probabilistic scheduling, and impact of constraints. Development of construction plan and representation in schedule format using common computer applications used in industry.

CON E 402. Mechanical and Electrical Systems (3)
Prerequisites: Construction Engineering 280, 301, Physics 196. Fundamentals of heating, ventilation, electrical circuits, and distribution systems. Simple sizing and balancing operations. Construction principles and practices for mechanical and electrical work. Specialty cost estimation, material handling, and labor analysis. Subcontracts and agreements for specialty construction.

CON E 430. Principles of Engineering Economy (3)
Prerequisites: Construction Engineering 280, 301, Physics 196. Mathematics of finance applied to engineering and managerial decision making. Framework for cost management in engineering and construction. (Formerly numbered Engineering 430.)

CON E 479. Construction Materials (3)
Two lectures and three hours of laboratory.
Prerequisites: Credit or concurrent registration in Civil Engineering 462. Selection, design and control of mixes of portland cement and asphalt concrete. Properties of these and other materials used in construction. (Formerly numbered Civil Engineering 479.)

CON E 480. Design of Temporary Structures (3)
Prerequisites: Construction Engineering 310, Civil Engineering 301, 462. Design of structures for temporary support of constructed work, including scaffolding and formwork, bracing, and excavations. Influence of codes and standards on the design process, selection of degrees of safety, and concepts of liability.

CON E 490. Construction Project Management and Safety (3)
Management and control functions for construction projects. Execution of projects based on plan, estimate and bid documentation. Fundamentals of construction safety planning, design, and requirements.

For additional courses in the construction engineering program, refer to “Civil Engineering” in this section of the catalog.

Counseling and School Psychology (CSP)

In the College of Education

UPPER DIVISION COURSES (Intended for Undergraduates)

CSP 300. Stress Management and Life Planning (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II. B., Social and Behavioral Sciences.
Effects of stress on physical and psychological states and life choices. Stress management practices that contribute to optimal health and productive life planning.

CSP 310. Group Leadership in Educational Settings (3)
Two lectures and two hours of activity.
Prerequisites: Anthropology 102 or Psychology 101 or Sociology 101; and completion of 60 units.
Identifying, classifying, and analyzing the components essential to development of leadership in educational settings. Simulation activities assist students in acquisition of group leadership skills.

CSP 320. Counseling Skills and Practice (3)
Basic counseling skills with focus on how they affect and may be applied within cultural interactions and for social change.

CSP 400. Counseling and the Helping Professions (3)
Serves as an introduction to the field of counseling and introduces the student to those professions considered to be helping professions.

CSP 401. Quest for Identity (3)

CSP 420. Popular Culture and Counseling (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Impact of popular culture on personal functioning and well-being. Meaning and salience of popular culture, social construction of popular culture in society, and convergence of popular culture and counseling.

CSP 450. Marriage and Family Therapy (3)
Prerequisites: Minimum of 15 units of coursework from Child and Family Development, Psychology, or Social Work.
Profession of family therapy. Problem formation and resolution processes that take place in families and other close relationships. Application of concepts within diverse contexts to one’s own family experience.

CSP 460. Counseling and Social Change (3)
Role counselors and helping professionals play in addressing social justice issues pertaining to race and ethnicity, disability, gender and sexual orientation, socioeconomic disadvantage and research.

CSP 496. Experimental Topics (1-3)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degrees.

CSP 499. Special Study (1-3) Cr/NC
Prerequisites: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.
Individual study. Maximum credit six units.
### Criminal Justice (CJ)

#### In the School of Public Affairs

#### In the College of Professional Studies and Fine Arts

### UPPER DIVISION COURSES

#### Intended for Undergraduates

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 300</td>
<td>Crime, Law, and Justice (3)</td>
<td>Prerequisite: Admission to the major or consent of instructor (non-majors only). Major movements in legal studies during the last century. Comparative systems of law.</td>
</tr>
<tr>
<td>CJ 301</td>
<td>Law in Society (3)</td>
<td>Prerequisite: Criminal Justice 300. Theoretical study of law in society from classical social theorists. Major movements in legal studies during the last century.</td>
</tr>
<tr>
<td>CJ 302</td>
<td>Crime and Behavior (3)</td>
<td>Prerequisite: Criminal Justice 300. Major disciplinary paradigms used both to explain criminal behavior and to inform official criminal justice policy.</td>
</tr>
<tr>
<td>CJ 303</td>
<td>Criminal Justice and Social Control (3)</td>
<td>Prerequisite: Credit or concurrent registration in Criminal Justice 300. Interrelationship of social control, social policy and administration of criminal justice in contemporary American society. (Formerly numbered Criminal Justice Administration 301.)</td>
</tr>
<tr>
<td>CJ 305</td>
<td>Professions and Ethics (3)</td>
<td>Prerequisites: Criminal Justice 300. Professional roles and responsibilities of practitioners and administrators in criminal justice agencies, including consideration of the ethical responsibilities of criminal justice practitioners. (Formerly numbered Criminal Justice Administration 305.)</td>
</tr>
<tr>
<td>CJ 310</td>
<td>Law Enforcement (3)</td>
<td>Prerequisites: Criminal Justice 300. Administrative relationships within the criminal justice process with special reference to problems of courts and police and probation agencies. (Formerly numbered Criminal Justice Administration 310.)</td>
</tr>
<tr>
<td>CJ 320</td>
<td>Criminal Law (3)</td>
<td>Prerequisites: Criminal Justice 300. Constitutional law principles as implemented in criminal courts with emphasis on critical analysis of factual situations and the argument of legal issues in criminal cases from both defense and prosecution perspectives. (Formerly numbered Criminal Justice Administration 320.)</td>
</tr>
<tr>
<td>CJ 321</td>
<td>Juvenile Justice (3)</td>
<td>Prerequisites: Criminal Justice 300. Assessment of the structure and functions of agencies and institutions which comprise the juvenile justice system in America; evolution of policies and programs for prevention of delinquency and treatment of the juvenile offender. (Formerly numbered Criminal Justice Administration 321.)</td>
</tr>
<tr>
<td>CJ 330</td>
<td>Corrections (3)</td>
<td>Prerequisites: Criminal Justice 300. Contemporary policies and practices of local, state and federal correctional agencies, influence of reform movements, and the interrelationship of corrections with other criminal justice system components. (Formerly numbered Criminal Justice Administration 330.)</td>
</tr>
<tr>
<td>CJ 333</td>
<td>The Judiciary (3)</td>
<td>Prerequisites: Criminal Justice 300 and Public Administration 301. Significant developments at state and federal levels, including court unification and financing, leadership, congestion, training, selection, tenure, discipline, removal and retirement of court-related personnel; and technological applications. (Formerly numbered Criminal Justice Administration 333.)</td>
</tr>
<tr>
<td>CJ 340</td>
<td>Prisons in Theory and Practice (3) Cr/NC</td>
<td>Offered only in Extension. Two lectures and 40 hours of supervised activity. Prerequisites: Criminal Justice 300 and consent of instructor. Design and operation of state and federal prisons in California from the perspective of staff and inmates. Onsite study and critique of facilities. (Formerly numbered Criminal Justice Administration 430.)</td>
</tr>
<tr>
<td>CJ 341</td>
<td>Field Study in Local Corrections (3) Cr/NC</td>
<td>One lecture and four hours of activity. Prerequisites: Criminal Justice 330; 18 years of age; no convictions or pending charges. Structure, function, and mission of local prisons and jails. Legal authority under which accused and convicted offenders are detained. Prison life, prison culture, gangs, and survival behind bars. Lives and careers of correctional staff. On-site visits.</td>
</tr>
<tr>
<td>CJ 396</td>
<td>Selected Topics in Criminal Justice (1-3)</td>
<td>Selected current topics in criminal justice. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496; 596 courses applicable to a bachelor’s degree. Maximum credit six units.</td>
</tr>
<tr>
<td>CJ 397</td>
<td>Senior Thesis (3)</td>
<td>Prerequisites: Senior standing and consent of instructor. Using library, Internet, and empirical research. Analysis of current criminal justice policy issues. (Formerly numbered Criminal Justice Administration 497.)</td>
</tr>
<tr>
<td>CJ 398</td>
<td>Internship in Criminal Justice (2-6) Cr/NC</td>
<td>Prerequisites: Consent of instructor and senior standing. Students are assigned to various government agencies and work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences. Maximum credit six units. (Formerly numbered Criminal Justice Administration 498.)</td>
</tr>
<tr>
<td>CJ 399</td>
<td>Special Study (1-3) Cr/NC</td>
<td>Prerequisites: Twelve units of upper division criminal justice administration and consent of instructor. Individual study. Maximum credit six units.</td>
</tr>
</tbody>
</table>

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**Graduate Courses**

Refer to the Graduate Bulletin for more information.
Dance

**UPPER DIVISION COURSES**
*(Also Acceptable for Advanced Degrees)*

**CJ 510. Contemporary Issues in Law Enforcement (3)**
Prequisites: Criminal Justice 310.
Assessment of problems confronting administrators of law enforcement agencies and of recent efforts to enhance the capability of agencies to control criminal activity while guarding individual liberties. (Formerly numbered Criminal Justice Administration 510.)

**CJ 520. Prosecutorial Function (3)**
Prerequisite: Criminal Justice 300.
Prosecutor's function at local, state, and federal levels and in selected foreign nations, including appraisal of proposed national standards and goals for prosecutors. (Formerly numbered Criminal Justice Administration 520.)

**CJ 531. Probation and Parole (3)**
Prerequisites: Criminal Justice 300.
Basic concepts, history, legislation, and practices used in work with juveniles and adults who have been placed on probation or parole; criteria of selection, methods of supervision, and elements of case reporting. (Formerly numbered Criminal Justice Administration 531.)

Prerequisite: Criminal Justice 300.
Application of planning, research, program development, and evaluation principles to field of criminal justice. (Formerly numbered Criminal Justice Administration 540.)

**CJ 543. Community Resources in Criminal Justice (3)**
Prerequisites: Criminal Justice 300.
Present and probable roles of public and private agencies and volunteers in criminal justice. (Formerly numbered Criminal Justice Administration 543.)

**CJ 570. Organized Crime: Domestic and International Perspectives (3)**
Prerequisites: Criminal Justice 300.
Interdisciplinary analysis of organized crime’s impact on criminal justice and public policy on both domestic and international levels. (Formerly numbered Criminal Justice Administration 570.)

**GRADUATE COURSES**
Refer to the Graduate Bulletin.

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Dance (DANCE)

**In the School of Music and Dance**

**In the College of Professional Studies and Fine Arts**

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**LOWER DIVISION COURSES**

**DANCE 100. Dance Activity (1)**
Two hours of activity.
Open to all students. Provides physically skilled instruction and knowledge of ballroom, ethnic, ballet, jazz, and modern dance forms.

A. Beginning Ballroom Dance
B. Ethnic Dance
C. Beginning Ballet
D. Beginning Jazz Dance
E. Intermediate Jazz Dance
F. Beginning Modern Dance
G. Intermediate Modern Dance

**DANCE 102. Elements of Dance for Non-Dance Majors (3)**
Two lectures and two hours of activity.
Developing an understanding of elements of dance: time, space, dynamics, and intention. Relationship to national and state educational standards. Designed for future teachers. Not open to dance majors.

**DANCE 106. Music Analysis (3)**
Three hours of activity.
An introduction to the functional analysis of music with an emphasis on the Western European tradition. Includes listening and notation. (Formerly numbered Music 106.)

**DANCE 109. Dance for Special Needs (1)**
One lecture and two hours of activity.
Instruction of dance to special education students.

**DANCE 110. Dance History (3)**
Three hours of activity.
Historical perspective of dance forms. Application of knowledge to dance presentation.

**DANCE 112. Contemporary Dance (3)**
Three hours of activity.
Dance as dynamic and continually changing. Principles of contemporary dance and their application to dance composition.

**DANCE 115. Historical Dance (3)**
Three hours of activity.
Cross-cultural dance traditions from ancient to modern time periods.

**DANCE 141. History of Dance (3)**
Three hours of activity.
Historical perspective of dance forms. Application of knowledge to dance presentation.

**DANCE 145. History of Dance (3)**
Three hours of activity.
Cross-cultural dance traditions from ancient to modern time periods.

**DANCE 150. Dance Survey (3)**
Three hours of activity.
Survey course examining the history and philosophy of dance with a focus on the major dance periods and genres. (Formerly numbered Dance 150.)

**DANCE 165. University Dance Company (1-2) Cr/NC**
More than three hours of activity per week.
Prerequisites: Audition and approval by dance faculty.
Performing experience in University Dance Company including concerts, performances of dance repertory, production of choreographic works, presentation of master classes and workshops, and participation in major production. Maximum credit four units.

**DANCE 171. Dance Production I (2)**
One lecture and two hours of activity.
Technical applications as applied to dance production.

**DANCE 181. Introduction to Dance (3) [GE]**
Foundations of dance in Western civilization. Dance as art, therapy, fitness, ritual, and social discourse. Analysis of dance in film, video, and live performance with an appreciation for artistic intent, technique, and style.

**DANCE 183. Rhythmic Analysis (2)**
One lecture and two hours of activity.
Music as related to movement; notation and simple music forms applied to all movement activities; percussion accompaniment; writing of percussion scores, music repertoire for dance.

**DANCE 210. Performance Forum (1)**
Two hours of activity.
Prerequisites: Consent of instructor.
Dance master classes, workshops, as related to dance performance, style, and repertoire. Maximum credit four units.

**DANCE 221. Ballet I (2)**
Four hours of activity.
Ballet skills for dance majors and minors emphasizing placement, coordination, ballet terminology, and technical principles. Maximum credit four units.

**DANCE 231. Jazz Dance I (2)**
Four hours of activity.
Prerequisites: Consent of instructor.
Jazz dance technique and fundamentals in various jazz dance forms and styles. See Class Schedule for specific content. Maximum credit four units.

**DANCE 241. Modern Dance I (3)**
Six hours of activity.
Development of modern dance skill with emphasis on function of alignment and articulation of extremities in motion. Maximum credit 12 units.

**DANCE 253. Choreography I (2)**
Four hours of activity.
Prerequisites: Dance 241 (6 units) and 255.
Using concepts of space, time, and energy to investigate and explore basic elements of choreography. Studies and compositions emphasizing solo and small group works.

**DANCE 255. Dance Improvisation I (2)**
Four hours of activity.
Exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills.

**DANCE 256. Dance Improvisation II (2)**
Four hours of activity.
Prerequisites: Dance 255.
Practice in more complex arrangements of improvisation.

**DANCE 285. Dance Pedagogy (2)**
Four hours of activity.
Teaching theory as applied to ballet, modern, jazz, and social dance for adult populations.

**DANCE 290. Body Modalities (2)**
One lecture and two hours of activity.
Alternative movement theory systems for dancers and non-dancers including an introduction to body modalities of yoga, Pilates, ideokinesis, Alexander and Feldenkrais techniques. Laban movement analysis and authentic movement. Maximum credit four units.

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**DANCE 300. Advanced Dance (3)**
Three hours of activity.
Advanced dance skills for dance majors and minors emphasizing placement, coordination, and technical principles. Maximum credit six units.

**DANCE 301. Advanced Ballet I (3)**
Six hours of activity.
Ballet skills for dance majors and minors emphasizing placement, coordination, and technical principles. Maximum credit six units.

**DANCE 302. Advanced Ballet II (4)**
Eight hours of activity.
Ballet skills for dance majors and minors emphasizing placement, coordination, and technical principles. Maximum credit eight units.

**DANCE 303. Advanced Modern Dance I (3)**
Six hours of activity.
Advanced modern dance skills with emphasis on function of alignment and articulation of extremities in motion. Maximum credit six units.

**DANCE 304. Advanced Modern Dance II (3)**
Three hours of activity.
Advanced modern dance skills with emphasis on function of alignment and articulation of extremities in motion. Maximum credit three units.

**DANCE 305. Jazz Dance II (3)**
Three hours of activity.
Prerequisites: Consent of instructor.
Jazz dance technique and fundamentals in various jazz dance forms and styles. See Class Schedule for specific content. Maximum credit three units.

**DANCE 310. Jazz Dance I (3)**
Three hours of activity.
Prerequisites: Consent of instructor.
Jazz dance technique and fundamentals in various jazz dance forms and styles. See Class Schedule for specific content. Maximum credit three units.

**DANCE 311. Contemporary Dance I (3)**
Three hours of activity.
Prerequisites: Consent of instructor.
Contemporary dance technique and fundamentals in various contemporary dance forms and styles. See Class Schedule for specific content. Maximum credit three units.

**DANCE 312. Contemporary Dance II (3)**
Three hours of activity.
Prerequisites: Consent of instructor.
Contemporary dance technique and fundamentals in various contemporary dance forms and styles. See Class Schedule for specific content. Maximum credit three units.

**DANCE 320. Dance Therapy (3)**
Three hours of activity.
Prerequisites: Consent of instructor.
Application of dance therapy, a holistic approach to human development, to personal, social, and cultural contexts.

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**DANCE 400. Dance Production II (2)**
Two hours of activity.
Prerequisites: Consent of instructor.
Technical applications as applied to dance production.

**DANCE 401. Dance Production III (2)**
Two hours of activity.
Prerequisites: Consent of instructor.
Technical applications as applied to dance production.

**DANCE 402. Dance Production IV (2)**
Two hours of activity.
Prerequisites: Consent of instructor.
Technical applications as applied to dance production.

**DANCE 403. Dance Production V (2)**
Two hours of activity.
Prerequisites: Consent of instructor.
Technical applications as applied to dance production.

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DANCE 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**UPPER DIVISION COURSES**  
( intented for Undergraduates)

DANCE 302. Dance for Children (3)  
Prerequisites: Upper division standing.  
Development of choreographic knowledge and leadership. Production of a collection of dance teaching resources; inclusion of the arts in learning environments. Designed for future classroom teachers and elementary dance specialists.

DANCE 353. Choreography II (2)  
Four hours of activity.  
Prerequisites: Dance 253.  
Introducing large group works, solo and small group work in organizing more complex arrangements of the basic elements of dance composition. Utilizing music and sound as aural contributions to choreography.

DANCE 354. Choreography III (2)  
Four hours of activity.  
Prerequisites: Upper division standing in dance.  
Approaching dance as a fundamental means of communication. Recognizing the relationship between form and content.

DANCE 365. University Dance Company: Major Performance (1-2)  
Cr/NC  
More than three hours of activity per week.  
Prerequisites: Open only to dance majors. Audition and approval by dance faculty.  
Practical experience in University Dance Company including concert performances of dance repertory, production of choreographic works, presentation of master classes and workshops, and participation in major production. Students must enroll in a minimum of two semesters. Maximum credit six units.

DANCE 371. Dance Production II (2)  
One lecture and two hours of activity.  
Prerequisites: Dance 171.  
Technical applications as applied to dance production. Continuation of Dance 171.

DANCE 380. Dance History: Contemporary Global Contexts (3)  
Prerequisites: Dance 181.  
History of dance from early twentieth century to present in a global context. Political, economic, and cultural forces that have shaped the development of contemporary dance as an art form. (Formerly numbered Dance 380B.)

DANCE 382. Dance in World Cultures (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities: Dance in selected cultures; geographic, historical, social, and aesthetic factors which have shaped development and function.

DANCE 398. Dance Internship (1-3)  
Prerequisites: Upper division standing and consent of dance director. Open only to dance majors and minors.  
Supervised practical experience in dance studio management and instruction. Maximum credit three units.

DANCE 410. Performance Forum (1)  
Two hours of activity.  
Prerequisites: Consent of instructor.  
Dance master classes, workshops, as related to dance performance, style, repertoire. Maximum credit four units.

DANCE 421. Ballet II (2)  
Four hours of activity.  
Prerequisites: Dance 221.  
Ballet skills for dance majors emphasizing turns, jumps, batterie, extended sequences, and movement quality. Maximum credit four units.

DANCE 441. Modern Dance II (3)  
Six hours of activity.  
Prerequisites: Dance 241.  
Advanced modern dance techniques based on skills developed in Dance 241 with emphasis on performance qualities in projection, vitality, and executing. Maximum credit 12 units.

DANCE 453. Senior Project (2)  
Prerequisites: Dance 354.  
Choreography of solo and group works utilizing symbiotic relationship of movement, sound, lighting, costuming, and other interdisciplinary media. Presentation of a concert.

DANCE 471. Production Design for Dance (2)  
One lecture and two hours of activity.  
Prerequisites: Dance 371.  
Lighting, set, multi-media, costume and make-up design for dance. Study of concert promotion and production for dance.

DANCE 481. Dance Aesthetics and Criticism (2)  
Prerequisites: Dance 380.  
Philosophy and aesthetics of dance. Historical foundations of dance criticism. Major contemporary schools of thought. Professional preparation and function of the dance critic.

DANCE 496. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

DANCE 499. Special Study (1-3)  
Prerequisites: Consent of the dance director.  
Individual study. Maximum credit six units.

**GRADUATE COURSES**

Refer to the Graduate Bulletin.

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**Economics (ECON)**

*In the College of Arts and Letters*

**LOWER DIVISION COURSES**

ECON 101. Principles of Economics (3) [GE]  
Principles of economic analysis, economic institutions, and issues of public policy. Emphasis on macroanalysis including national income analysis, money and banking, business cycles, and economic stabilization.

ECON 102. Principles of Economics (3) [GE]  
Principles of economic analysis, economic institutions, and issues of public policy. Emphasis on direction of production, allocation of resources, and distribution of income, through the price system (microanalysis); and international economics.

ECON 201. Statistical Methods (3) [GE]  
Prerequisites: Course in intermediate algebra, satisfaction of the Entry-Level Mathematics requirement, and qualification on the Mathematics Departmental Placement Exam, Part 1A.  
Introduction to descriptive statistics, statistical inference, regression and correlation. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Economics 201; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Political Science 201; Psychology 270; Sociology 201; Statistics 119 or 250.

ECON 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.
ECON 301. Collection and Use of Data in Economics (3) 
Prerequisites: Economics 101 and 102; Economics 201 or Statistics 119; and Information and Decision Systems 180 or Sociology 200C.
Economic data gathering via Internet and other sources, data entry into spreadsheets and graphing techniques, statistics using spreadsheets, and introduction to basic regression.

ECON 311. History of Economic Thought (3) 
Prerequisites: Economics 101 and 102.
The development of economics. Contributions of schools of thought and individual writers are examined with regard to their influence on economic theory and policy.

ECON 320. Intermediate Macroeconomic Theory (3) 
Prerequisites: Economics 101 with approval of department. Recommended: Mathematics 120 or 121 or 150.

ECON 321. Intermediate Microeconomic Theory (3) 
Prerequisites: Economics 102 with approval of department. Recommended: Mathematics 120 or 121 or 150.
Behavior of consumers, firms and industries with respect to product and input markets. Price system and other models of economic decision making. Economic efficiency and welfare; property rights and externalities.

ECON 330. Comparative Economic Systems (3) [GE] 
Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.
Current economic systems from primarily laissez-faire to state-controlled market economies with a focus on nations of Asia, Europe and Latin America; Soviet-style economic planning and transition to a market economy.

ECON 338. Economic History of the United States (3) 
Prerequisites: Six units of economics to include Economics 101.
American economic development and national legislation. Studies of agriculture, industry, the labor force, and national output.

ECON 349. Economics for Teachers (3) 
Prerequisites: Economics 101 and 102.
Micro and macroeconomics with emphasis on developing economic literacy and economic way of thinking.

ECON 360. International Economic Problems (3) 
Prerequisites: Economics 101 and 102.
International problems, economic communities, organizations, and other selected topics.

ECON 365. Economics of Underdeveloped Areas (3) 
Prerequisites: Six units of economics to include Economics 101.
The nature and causes of economic underdevelopment. Problems of and policies for the economic development of underdeveloped areas of the world.

ECON 380. Labor Economics (3) 
Prerequisites: Six units of economics to include Economics 102.
Labor force and mobility, human capital, labor demand, discrimination, determination of compensation and employment, productivity, impact of labor organizations, labor disputes, and social legislation.

ECON 382. Economics of Work, Marriage, and Family (3) 
Prerequisites: Economics 102.
Economic analysis of marriage and labor supply; family-related changes in work behavior; gender differences in occupations and earnings; welfare, work and family policies in the U.S. and internationally; macroeconomic analysis of household structure and economy.

ECON 401. Public Finance (3) 
Prerequisites: Economics 101 and 102.
Principles and practices of taxation and public expenditures. Economic effects of public spending, debts and taxation. Financing social security and other services. Fiscal policy and prosperity. Relation to inflation and deflation. Special emphasis on social problems involved.

ECON 406. Economics of Sports (3) 
Prerequisites: Economics 102.
Economic issues in professional and college team sports. Emphasis on monopoly and monopsony behavior by sports leagues and teams, public subsidies for sports facilities, ticket pricing, and NCAA rules and regulations.

ECON 422. Business Cycles (3) 
Prerequisites: Economics 101 and 102.
Fundamental factors in economic fluctuations. Examination of business cycle theories, and various policy proposals for economic stabilization. A consideration of current economic conditions and an examination of methods employed in preparing national economic forecasts.

ECON 441. Introduction to Econometrics (3) 
Prerequisites: Economics 301; Mathematics 120 or 121 or 150; Recommended: Economics 320 or 321.
Econometric methods with emphasis on single-equation models. Applied skills learned through computer assignments.

ECON 449W. Economic Literacy (3) 
Prerequisites: Twelve units in economics to include Economics 101 and 102.
Economic way of thinking through writing. Effective communication of economic concepts and analysis to different audiences.

ECON 452. Economics of Energy Resources (3) 
Prerequisites: Six units of economics.

ECON 453. Environmental and Natural Resource Economics (3) 
Prerequisites: Economics 101 and 102.
Relation of ecological problems to basic economic institutions. Examination of the apparent conflict between economic needs and ecological requirements. Economics of air, fresh water, ocean and land pollution, overpopulation and natural resource utilization. Investigation of possible solutions.

ECON 454. Economics of the Ocean (3) 
Prerequisites: Economics 101 and 102.
Economic analysis of fisheries, seabed resources, shipping lanes, allocation of the coastal zone, and ocean pollution. Economic implications of alternative legal arrangements concerning the ocean.

ECON 458. Urban Economics (3) 
Prerequisites: Economics 101 and 102.
Major influences on economic conditions of urban areas; specific urban issues including growth and housing. Discussion of San Diego issues.

ECON 463. Economic Development Before 1900 (3) 
Prerequisites: Economics 101 and 102.
Emergence of market institutions in medieval Europe; comparisons with China, India, and Islamic world. Origin and evolution of market institutions, using concepts from new institutional economics, game theory, and behavioral economics.

ECON 464. Economic Problems of Latin America (3) [GE] 
Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.
Economic development, institutions, and problems of Latin America in the context of a global economy.
ECON 489. Economics and Population (3) [GE]
Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.
Relation of fertility, marriage, migration, and other dimensions of population to various economic factors affecting household behavior. Demographic measures and projections, application to product markets and to policies of developed and less developed countries.

ECON 490. Money and Banking (3)
Prerequisites: Economics 101, 102, and Accountancy 201.
Money's measurement and use; monetary theory and policy; returns on financial instruments; international payments and foreign exchange; evolution of banking institutions, and global competition.

ECON 495. Economics Internship (3) Cr/NC/RP
Prerequisites: Consent of instructor.
Internship with business firms, nonprofit organizations and government agencies. Work done under joint direction of activity supervisor and instructor. Project report and internship conferences required. Maximum credit six units.

ECON 496. Experimental Topics (1-3)
Prerequisites: Consent of instructor.
Selected topics in economics. May be repeated with approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit nine units.

ECON 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. May be repeated for a maximum of six units. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

ECON 507. Mathematical Economics (3)
Prerequisites: Mathematics 121 or 150. Recommended: Economics 320 or 321.
Mathematical concepts as tools in understanding, developing, and illustrating economic theories. Applications of calculus and linear equations to constrained optimization, macro models, elasticity, general equilibrium, and input-output analysis.

ECON 561. International Trade (3)
Prerequisites: Economics 320 and 321.

ECON 565. North American Economic Relations (3)
Prerequisites: Economics 101 and 102. Recommended: Economics 360.
Socioeconomic development of U.S., Mexico, and Canada since World War II. Issues affecting the three countries' relations, including trade investment, technology, and international organizations and agreements.

ECON 592. International Monetary Theory and Policy (3)
Prerequisites: Economics 320 or 490.

ECON 596. Experimental Topics (3)
Prerequisites: Consent of instructor.
Intensive study in specific areas of economics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Education (ED)
In the College of Education

LOWER DIVISION COURSES

ED 200. Teaching as a Profession (3)
Current issues, challenges in education; explores strategies that promote professional development. Critically assesses issues related to teaching in culturally and linguistically diverse school settings. Includes guided classroom observations.

ED 201. Introduction to Literacy (3)
Two lectures and four hours of laboratory. Intended for students in the liberal studies blended program for K-3 literacy tutors. Basic processes of literacy and instructional strategies in culturally relevant reading instruction for emergent readers. Requires four hours weekly tutoring in a designated K-3 setting.

UPPER DIVISION COURSES (Intended for Undergraduates)

ED 350. Education in American Society (3) [GE]
(Selected sections offered as distance education)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Philosophical, historical and psychological roots of education in America; current models, instructional designs and strategies of education. Contemporary concerns in education.

ED 451. Introduction to Multicultural Education (3)
Overview of cultural pluralism in education, industry, business, other institutions, and society at large.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

ED 516. Foundations of Bilingual Education (1)
(Required to complete requirement)
Prerequisites: Credit or concurrent registration in Education 451. Overview of models of bilingual education programs for language minority students.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Educational Leadership (EDL)
In the College of Education

LOWER DIVISION COURSE

EDL 206. Emerging Leaders (3)
Attributes of successful leaders. Enables students opportunities to self assess, develop, and apply leadership attributes for leadership development.

UPPER DIVISION COURSE (Intended for Undergraduates)

EDL 404. Field Laboratory in Leadership: Public Agencies and Businesses (1)
Prerequisite: Educational Leadership 206. Laboratory in public agencies and business settings to integrate academic work with experiences in the community.

EDL 405. Enacting Leadership (3)
Prerequisites: Completion of all courses in the leadership development minor with a 3.0 GPA.
Capstone course. Synthesis and integration of learning to demonstrate self-efficacy. Apply analytical reasoning in leadership scenarios. Articulate individual leadership abilities and apply leadership principles to major field and career.

GRADUATE COURSES
Refer to the Graduate Bulletin.
EDTEC 496. Experimental Topics (1-3)
Selected problems in educational leadership. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

EDTEC 499. Special Study (1-3)
Prerequisites: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.
Individual study. Maximum credit six units.

EDTEC 596. Topics in Educational Leadership (1-3)
Selected problems in educational leadership. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

EDTEC 532. Producing Digital Learning Media for Nonmajors (1-3)
Two hours of activity per unit.
Digital learning media production for professionals in health, law, science, business, publishing, and other settings. Use of web- and video-based technologies, presentation and data analysis tools for training and education. Not open to students in educational technology degree or certificate programs.

EDTEC 540. Educational Technology (3)
(Selected sections offered as distance education)
Six hours of activity.
Rationale, foundations, theories, careers, trends, and issues in educational technology. Implications of educational technology for instruction and information in schools, government, and corporations.

EDTEC 541. Web-Based Multimedia Development (3)
(Selected sections offered as distance education)
One lecture and six hours of laboratory.
Prerequisites: Basic computer literacy. Systems, aesthetic, and learning theories applied to design of web-based educational multimedia. Planning and prototyping digital media. Not open to students with credit in Educational Technology 532.

EDTEC 544. Instructional Design (3)
(Selected sections offered as distance education)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541. Meet department Writing Skills Requirement.

EDTEC 550. Introduction to Distance Education (3)
(Selected sections offered as distance education)
Two lectures and three hours of laboratory.
Prerequisites: Educational Technology 540, 541, 544, or equivalent experience in the field.

EDTEC 561. Advanced Web-Based Multimedia Development (3)
(Selected sections offered as distance education)
Six hours of activity.
Prerequisites: Educational Technology 540 and 541. Two- and three-dimensional graphics, visualization, animation, digital video, sound, and virtual reality techniques. Research-based guidelines, design languages applied to development of interactive web-based learning systems.

EDTEC 570. Advanced Teaching with Technologies (3)
(Selected sections offered as distance education)
Prerequisites: Educational Technology 470 or equivalent work experience.
Design of constructivist lessons and units using Internet resources. Use of visual organizing tools and databases for instruction and assessment. Tools for professional knowledge base organization and electronic portfolios.

EDTEC 572. Technology for Course Delivery (3)
(Selected sections offered as distance education)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541.
Use of technology to support planning, presenting and managing instructor-led courses.
Electrical Engineering (E E)

In the Department of Electrical and Computer Engineering

NOTE: Prerequisites will be enforced in all undergraduate electrical engineering courses numbered 100 through 596. A copy of an official transcript will be accepted as proof. For corequisites, an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

Any course at the 300 level or below must be passed with a grade of C- or better in order to be used as a prerequisite for any subsequent course.

LOWER DIVISION COURSES

E E 204. Principles of Electrical Engineering (3)
Prerequisites: Mathematics 151 and Physics 196.
Circuit analysis, phasor diagrams, single-phase and three-phase power, semiconductor devices and applications, and energy conversion devices. Not acceptable for electrical or computer engineering majors.

E E 210. Circuit Analysis I (3)
Prerequisites: Mathematics 151 and Physics 196.
Circuit analysis by reduction methods, source transformations, mesh and nodal analysis. Operational amplifier model, transient analysis, alternating current circuits, impedance, power, phasor diagrams, and three-phase balanced networks. Computer programming and application of computer software for circuit analysis.

UPPER DIVISION COURSES (Intended for Undergraduates)

E E 300. Computational and Statistical Methods for Electrical Engineers (3)
Prerequisites: Computer Engineering 160 and Mathematics 151.
Deterministic and statistical concepts and models in electrical engineering. Associated plotting and numerical techniques. Graphical representation of data and signal processing using computer-aided engineering tools.

E E 303. Electronics, Instrumentation, and Electrical Energy Conversion (3)
Prerequisite: Electrical Engineering 204.

E E 310. Circuit Analysis II (3)
Prerequisites: Electrical Engineering 210 and either Mathematics 252 or both Engineering 280 and Mathematics 254. File an approved master plan with the Department of Electrical and Computer Engineering.

E E 330. Fundamentals of Engineering Electronics (3)
Prerequisites: Electrical Engineering 210.
Application of diodes JFETs, MOSFETs, and BJTs in typical electronic circuits. Analysis and design of rectifiers, filters, and simple amplifiers using transistors and operational amplifiers.

E E 330L. Engineering Electronics Laboratory (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Electrical Engineering 330.
Experimental study of laboratory instruments, diodes, rectifier circuits, filters, transistors, and operational amplifiers.

E E 340. Electric and Magnetic Fields (3)
Prerequisites: Electrical Engineering 210 and Engineering 280.
Electrostatic and magnetostatic field theory using vector notation; Coulomb’s Law, Gauss’ Law and potential theory. Solutions to Poisson’s and Laplace’s equations; capacitance and inductance. Time-varying fields; Maxwell’s equations.

E E 380. Electrical Energy Conversion (3)
Prerequisites: Electrical Engineering 210.
Magnetic circuits, transformers and polyphase AC networks. Fundamentals of electro-mechanical energy conversion; induction motors, synchronous machines and DC machines.

E E 380L. Electrical Energy Conversion Laboratory (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Electrical Engineering 380.
Experimental study of DC, single and polyphase AC circuits, transformers, and machines.

E E 397. Discussion: Electrical Engineering (1) Cr/NC
Prerequisites: Concurrent registration in associated course.
Discussion and examples of problem-solving techniques in subject area. Weekly writing assignments summarizing material covered in lecture and identifying troublesome topics. Not applicable to a bachelor’s degree.

E E 410. Signals and Systems (3)
Prerequisites: Electrical Engineering 300 and 310.
Linear time-invariant systems, Fourier analysis, continuous and discrete signals and systems, filtering, sampling, and Z-transform techniques.

E E 420. Feedback Control Systems (3)
Prerequisites: Electrical Engineering 410.
Control systems including servomechanisms by Laplace transform method. System performance and stability; Nyquist, Bode, and root-locus diagrams; elementary synthesis techniques. Practical components and examples of typical designs. (Formerly numbered Electrical Engineering 520.)

E E 430. Analysis and Design of Electronic Circuits (3)
Prerequisites: Electrical Engineering 310, 330, and Engineering 280.
Single and multiple transistor amplifiers, power stages. Frequency response, feedback, stability, and operational amplifier circuits.

E E 430L. Electronic Circuits Laboratory (1)
Three hours of laboratory.
Prerequisites: Electrical Engineering 330L and 430.
Transistor dynamic characteristics; single stage and multistage amplifier circuits including feedback, tuned amplifiers, voltage regulators, active filters, and A/D-D/A converters.
E E 434. Electronic Materials and Devices (3)
Prerequisites: Electrical Engineering 330 and 340.
Crystal properties and growth of semiconductors, quantum mechanics of solids, shot noise and thermal noise, energy band and charge carriers, excess carrier in semiconductors, p-n junctions, solar cells, tunnel diodes, photodetectors.

E E 450. Electromagnetic Waves and Transmission Lines (3)
Prerequisites: Electrical Engineering 310 and 340.
Electromagnetic waves in unbounded media; reflection, transmission, and refraction at planar interfaces; transmission line theory; TEM, waveguide and planar structures; harmonic and pulse propagation on lines; applications to microwaves and high-speed electronics, resonators, filters, and other components.

E E 458. Analog and Pulse Communication Systems (3)
Prerequisites: Electrical Engineering 410.
Analog and digital communication systems. Amplitude and frequency modulation, pulse modulation, and PCM. Introduction to information theory.

E E 483. Power Distribution Systems (3)
Prerequisites: Electrical Engineering 380.
Design and operation of electric power distribution systems. Design of primary and secondary systems, application of one phase and three phase transformer banks, and metering principles and practices.

E E 484. Power Electronics (3)
Prerequisites: Electrical Engineering 380 and concurrent registration in Electrical Engineering 430.
Design and analysis of power electronic devices. Power semiconductor switches, switch-mode power supplies, dc-to-ac inverters, PM and PWM ac-to-ac converters. Power electronics applications. (Formerly numbered Electrical Engineering 583.)

E E 490. Senior Design Project (4)
Two lectures and six hours of laboratory. 
Prerequisites: Electrical Engineering 330L, 410, 430, 434. Supervised capstone design projects to provide integrative design experience for seniors to include ethics, professionalism, cost-effectiveness, and project management.

E E 496. Advanced Electrical Engineering Topics (1-3)
Prerequisites: Consent of instructor.
Class Schedule for specific content. Maximum credit nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor’s degree.

E E 499. Special Study (1-3)
Prerequisites: Approval of project adviser and department chair. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

E E 502. Electronic Devices for Rehabilitation (3)
Two lectures and three hours of laboratory. 
Prerequisites: Electrical Engineering 303 or 330. Recent developments in electronic assistive devices and microcomputers for persons with various disabilities; assessment of disabled persons for suitable technological assistive devices.

E E 503. Biomedical Instrumentation (3)
Prerequisites: Engineering 280; Electrical Engineering 410 and 430 or for Mechanical Engineering majors, Electrical Engineering 303 and Mechanical Engineering 512.
Instrumentation systems to monitor, image, control, and record physiological functions.

E E 522. Digital Control Systems (3)
Prerequisites: Electrical Engineering 420.
Digital control systems; design algorithms including analog-invariance methods, direct digital techniques, and non-parametric approaches such as fuzzy control, neural networks, and evolutionary systems; implementation considerations. (Formerly numbered Electrical Engineering 622.)

E E 530. Analog Integrated Circuit Design (3)
Prerequisite: Electrical Engineering 430 with minimum grade of C-
Advanced treatment of transistor pairs, device mismatches, differential amplifiers, current mirrors, active loads, level shifting, and output stages. Parasitic and distributed device parameters. Economics of IC fabrication and impact on design.

E E 534. Solid-State Devices (3)
Prerequisites: Electrical Engineering 434.
Conduction theory of solids. Characteristics of tunnel, backward, breakdown, multilayer and varactor diodes; silicon controlled rectifiers and switches, unijunction transistors, hot electron devices. Lasers and laser applications.

E E 539. Instrumentation Circuits I (3)
Prerequisites: Electrical Engineering 430.
Design and analysis of hybrid analog/digital electronic sub-systems incorporated into modern instrument design. Emphasis on operational amplifier based circuit design and analog-to-digital and digital-to-analog conversion processes.

E E 540. Microwave Devices and Systems (3)
Prerequisites: Electrical Engineering 450. Recommended: Engineering 510.
Applications of Maxwell’s equations to wave propagation. Microwave network parameters; guided wave transmission and reflection. Design of filters, couplers, power dividers and amplifiers. Applications in radar and telecommunications systems.

E E 540L. Microwave Design and Measurements Laboratory (1)
Three hours of laboratory. 
Prerequisites: Credit or concurrent registration in Electrical Engineering 430L and 540.
Designs, computer simulations, fabrications, and testing of microwave matching networks, couplers, filters, and amplifiers.

E E 541. Electro-Optics (3)
Prerequisites: Electrical Engineering 434.
Optical/electronic devices and systems; wave beams; light-matter quantum interactions; incoherent and laser light sources; modulators and detectors. Applications in data transmission, measurement, and materials processing.

E E 546. Optical Fiber Communications Systems (3)
Prerequisites: Electrical Engineering 434.
Optical fiber attenuation and dispersion, light-emitting diodes and laser diodes, PIN diodes and avalanche photodiodes, receiver designs, optical power budgets and rise time budgets, applications in digital and analog communication systems.

E E 553. Stochastic Signals and Systems (3)
Prerequisites: Electrical Engineering 410.
Random signals, correlation functions, power spectral densities, the Gaussian process, narrow band processes. Applications to communication systems.

E E 556. Digital Signal Processing (3)
Prerequisites: Electrical Engineering 410 or Physics 516.
Digital signal processing. Discrete-time signals, transform techniques, and digital filters. Design of FIR and IIR filters, FFTs, and finite length effects on digital systems.

E E 558. Digital Communications (3)
Prerequisites: Electrical Engineering 458.
Design of baseband digital communication systems; noise characterization, sampling, quantization, matched filter receivers, bit error performance, inter-symbol interference, link budget analysis.

E E 558L. Communications and Digital Signal Processing Laboratory (1)
Prerequisites: Credit or concurrent registration in Electrical Engineering 556 or 558.
Experiments in modulation techniques, effects of noise on system performance, digital filters, and signal processing.
E E 580. Power System Analysis (3)
Prerequisites: Engineering 280, Electrical Engineering 310 and 380.
Modern power system elements; calculation of load flow, fault currents, and system stability.

E E 581. Power System Dynamics (3)
Prerequisites: Electrical Engineering 580.
Three-phase faults, symmetrical components, unsymmetrical faults, protective relay operating principles, economic dispatch of thermal power generation units, power system controls, voltage and power stability.

E E 596. Advanced Electrical Engineering Topics (1-3)
Prerequisites: Consent of instructor.
Modern developments in electrical engineering. May be repeated with new content. See Class Schedule for specific content. Maximum credit of six units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor’s degree. Maximum combined credit of six units of Electrical Engineering 596 and 696 applicable to a 30-unit master’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Engineering (ENGR)
In the College of Engineering

LOWER DIVISION COURSES

ENGR 280. Methods of Analysis (3)
Prerequisites: Mathematics 151 with minimum grade of C. Recommended: Mathematics 252.
Selected topics from ordinary differential equations, the Laplace transform, Fourier series, and linear algebra, with engineering applications.

ENGR 296. Experimental Topics (1–4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSE
(Intended for Undergraduates)

ENGR 496. Advanced Engineering Topics (1–3)
Prerequisites: Mathematics 151 with average of 2.0 in engineering.
Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of 496, 499, and 596 applicable to a bachelor’s degree.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

ENGR 510. Methods of Analysis (3)
Prerequisites: Engineering 280 with minimum grade of C.
Selected topics from vector calculus, partial differential equations, and complex analysis, with engineering applications.

GRADUATE COURSES
Refer to the Graduate Bulletin.

English (ENGL)
In the Department of English and Comparative Literature
In the College of Arts and Letters

LOWER DIVISION COURSES

ENGL 100. Rhetoric of Written Argument (3) [GE]
(Same course as Rhetoric and Writing Studies 100)
Prerequisites: Satisfactory completion of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.) Proof of completion of prerequisite required: Copy of EPT, or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.
International students are advised to take Linguistics 100. Writing and reading as critical inquiry, designed to help students undertake university-level writing projects. Focus on rhetoric of written arguments. Students learn to use sources in their writing and make appropriate decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in a higher-numbered composition course or Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100.

ENGL 200. Rhetoric of Written Arguments in Context (3) [GE]
(Same course as Rhetoric and Writing Studies 200)
Prerequisites: Satisfactory completion of the SDSU writing competency requirement and Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100. Proof of completion of prerequisite required: Test scores or verification of exemption; copy of transcript.
International students are advised to take Linguistics 200. Further practice in writing, reading, and critical thinking. Emphasis on rhetoric of written arguments in context and using multiple sources in writing. Continued attention to structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, General Studies 260D, or Linguistics 200 or Rhetoric and Writing Studies 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.

ENGL 220. Introduction to Literature (3) [GE]
Prerequisites: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101.
Proof of completion of prerequisite required: Copy of transcript.
Inquiry into basic nature of literature. What prompts human kind to create imaginative literature? What purposes does literature serve in cultural life of humanity? What are its social, philosophical, spiritual, and aesthetic values? Some consideration may be given to techniques and major critical theories, but focus will be on practical criticism for nonspecialists. Specific works studied will be representative of several genres, cultures, and periods of literature.

ENGL 250A-250B. Literature of the United States (3-3)
Prerequisites: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.
United States literature from colonial period to present. Semester I: from beginning to Civil War. Semester II: Civil War to present. Recommended for English majors.

ENGL 250A. Literature of the United States I (3)
Prerequisites: A grade of C (2.0) or better in English 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.
Prerequisites: A grade of C (2.0) or better in English 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.
Prerequisites: A grade of C (2.0) or better in English 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.
Prerequisites: A grade of C (2.0) or better in English 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.
Prerequisites: A grade of C (2.0) or better in English 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.
ENGL 260A-260B. English Literature (3-3)  
Prerequisites: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

English literature from Anglo-Saxon period to present, with emphasis on major works in literary tradition. Semester I: Ends with neoclassical period. Semester II: Begins with Romantic writers.

ENGL 280. Introduction to Creative Writing (3)  
Prerequisites: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Theory and practice of poetry and fiction, with emphasis on basic concepts and techniques. A research paper on a writer, a technique, a period, or a genre required.

ENGL 281. Creative Writing: Selected Genres (3)  
Prerequisites: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Guidance and extensive practice in writing in one or more of the major genres: poetry, drama, fiction, or the essay. See Class Schedule for specific content.

ENGL 296. Experimental Topics (1-4)  
Prerequisites: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES  
(Intended for Undergraduates)

ENGL 301. The Psychological Novel (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Psychological novel from its inception to present, including major works from a variety of cultures. Readings designed to aid students in discovering insights which great novelists have unearthed in their explorations of the human psyche.

ENGL 302. Introducing Shakespeare (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Representative tragedies, comedies, and histories. Primarily for the general student not specializing in English or comparative literature. This course does not count toward the English or comparative literature majors. Majors are required to take English 533.

ENGL 303. Contemporary World Novel (3)  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Selected novels of critical acclaim, first published or first translated within the past 20 years from literatures around the world to include problems of social class and gender roles as well as views of global economic development and aesthetic considerations.

ENGL 306A-306W. Children’s Literature and Advanced Composition (3-3)  
Prerequisites: English 200 or Rhetoric and Writing Studies 200. English 306A and 306W must be taken concurrently. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower), and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

A. Reading, analysis, and discussion of classic works of children’s literature.

W. Advanced composition; improvement of student skills through writing assignments based upon reading and work in the lecture part. Primarily designed to meet Graduation Writing Assessment and Literature requirements for Liberal Studies-Emphasis in Education, but also open to students with other majors.

ENGL 308W. Literary Study: Analysis, Research, and Writing (3)  
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower), and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Methods of literary analysis; concepts and terminology of literary study; research methods. Modes of writing about literature, with emphasis on the research paper.

ENGL 401. Childhood’s Literature (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Influential contemporary and classic literature for children and young adults, such as Charlotte’s Web and the Harry Potter series. Sample topics include construction of childhood, cultural values and ethnocentric models, and adult power. Not applicable to English or comparative literature majors. Majors are to take English 501.

ENGL 405. The Bible as Literature (3) [GE]  
(Same course as Comparative Literature 405)

Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Prose and poetry of the King James version.

ENGL 409. Science Fiction (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

How authors have responded to growing impact of science and technology on people’s lives and imaginations. Representative works by authors such as Kobo Abe, Bradbury, Butler, Delaney, DeLillo, Dick, Gibson, Heinlen, Hoban, Huxley, Kapek, LeGuin, Murakami, Orwell, Poe, Russ, Shelley, Verne, Wells, Zamyatin, and others.

ENGL 410. Literature and the Passions (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Studies literature and the passions (grief and melancholy, anger and rage, and love) with emphasis on language and rhetorical techniques writers employ to construct emotion. Writers may include Emily Bronte, Raymond Carver, Chretien de Troyes, DuBois, Emerson, Homer, Melville, and Shakespeare.

ENGL 491. Contemporary Topics in Literature (3)  
Exploration of writers, works and topics in fiction, poetry, drama, and film, emphasizing the relationship between literature and current concerns. Topics include the city in fiction and film, literature and ideology, literature of death, literature of contemporary myth and folklore, women in literature. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units. See Class Schedule for specific content.

ENGL 493. Literature and Film (3)  
Relationships between film and genres of literature, focusing on a critical comparison of the techniques of rhetoric, fiction, and drama and those of film. Topics include literature and film, novel into film, drama and film, reading film. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units.

ENGL 494. Modern Fiction of the United States (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.

Representative works by twentieth-century American authors such as Cather, Hemingway, Steinbeck, Faulkner, Fitzgerald, Ellison, Welty, Bellow, Vonnegut, Heller, Walker, others. Primarily for the general student not specializing in English or comparative literature. May count toward the English major only as an elective.
ENGL 496. Selected Topics in English (1-4)
Specialized study of a selected topic in literature. May be repeated with new title and content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

ENGL 499. Special Study (1-3)
Prerequisites: Consent of instructor and approval of department chair.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

Prerequisite for all 500-level courses: Six lower division units in courses in literature and/or creative writing.

ENGL 501. Literature for Children (3)
Critical analysis of literature intended for children. Study of texts and illustrations. This course cannot be used in place of English 401 to satisfy General Education requirements.

ENGL 502. Adolescence in Literature (3)
Prerequisites: Six units in literature.
Works centrally concerned with an adolescent protagonist. Includes both traditional novels of development (Bildungsroman) and contemporary young adult novels.

ENGL 503. Topics in Children's Literature (3)
Prerequisites: Six units in literature.
Topics in children’s and adolescents’ literatures such as regionalism, multiculturalism, fantasy, science fiction, non-fiction, illustrated books, nineteenth-century classics, major works by twentieth-century authors, British children’s literature, the noir young adult novel, and the history of genre. Maximum credit six units.

ENGL 505. The Writing of Criticism (3)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
Theory and practice of literary criticism. Emphasis on the work of important critics and on development of student’s own critical writing.

ENGL 507. Milton (3)
Prerequisites: Six units in literature.
Study of a specific literary genre or genres, such as the novel, tragedy, epic, and lyric. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

ENGL 508W. The Writing of Criticism (3)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
An introduction to the writings of Shakespeare. This course cannot be used in place of English 320 to satisfy General Education requirements.

ENGL 509. Shakespeare (3)
Prerequisites: English 533.
Advanced study of Shakespeare’s achievement as poet and playwright. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

ENGL 510. Milton (3)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
Study of a literary period such as the Middle Ages or Renaissance. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

ENGL 511. Milton’s Writings, with emphasis on Paradise Lost.
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
English dramatic literature from its beginnings to the present. Semester I: From the beginning to 1642. Semester II: From 1642 to 1660. Prerequisites: Six lower division units in literature and/or creative writing courses.

ENGL 514. English Drama (3-3)
Prerequisites: Six lower division units in literature and/or creative writing courses. Study of a literary period such as the Restoration or Enlightenment. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

ENGL 515. The Restoration and Early Sturm und Drang (3-3)
Prerequisites: Six lower division units in literature and/or creative writing courses. Study of a literary period such as the Romantic or Victorian Age. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.
ENGL 544. British Literary Periods, 1900-Present (3)
Prerequisites: Six lower division units in literature and/or creative writing courses.
Study of a literary period such as the Postmodern Era. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

ENGL 549. Topics in English Literature (3)
The works of Spenser, the metaphysical school of poetry, the English satirists, major movements in contemporary English fiction, and the like. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

ENGL 563. Literature and Culture (3)
Prerequisites: Six lower division units in literature and/or creative writing courses. Study of literature in relation to a specific culture idea or phenomenon, such as literature and the law, literature and technology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

ENGL 570. Techniques of Poetry (3)
Prerequisites: English 280.
Techniques of poetry from the writer’s point of view. Introduction to critical and theoretical literature on poetry. Includes a creative writing workshop.

ENGL 571. Techniques of the Short Story (3)
Prerequisites: English 280.
Techniques of the short story from the writer’s point of view. Introduction to critical and theoretical literature on the short story. Includes a creative writing workshop.

ENGL 573. Techniques of the Novel (3)
Prerequisites: English 280.
Introduction to critical and theoretical literature on the novel. Includes a creative writing workshop.

ENGL 576. Literary Editing and Publishing (3)
Prerequisites: English 280.
Principles and practices of editing and literary publishing. Workshop on small press publishing. Includes editing and publishing workshop.

ENGL 577. Techniques of Screenwriting (3)
Prerequisites: English 280 or Television, Film, and New Media 110 or 510 for television, film, and new media majors.
Techniques of screenwriting. Introduction to critical and theoretical literature on screenwriting. Includes a creative writing workshop.

ENGL 579. Topics in Creative Writing (3)
Prerequisites: English 280.
Techniques of creative writing focusing on a specialized genre such as comedy, science fiction, and biography. Study of the critical and theoretical literature on the genre. Includes a creative writing workshop. See Class Schedule for specific content. Maximum credit six units.

ENGL 580. Writing of Poetry (3)
Prerequisites: English 570.
A creative writing workshop in poetry. Continuation of English 570. Maximum credit six units.

ENGL 581W. Writing of Fiction (3)
Prerequisites: English 280. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. A creative writing workshop in fiction. Continuation of English 571. Maximum credit six units.

ENGL 583. Writing Long Narrative (3)
Prerequisites: English 573.
A creative writing workshop in long narrative, especially the novella or novel. Continuation of English 573. Maximum credit six units.

ENGL 584W. Writing Informal Essays (3)
Prerequisites: English 280. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
A creative writing workshop in nonfiction, especially the essay as an art form. Maximum credit six units.

ENGL 587. Writing the Screenplay (3)
Prerequisites: English 577 or Television, Film, and New Media 110 or 510 for television, film, and new media majors.
A creative writing workshop in screenwriting with emphasis on the feature film. Continuation of English 577. Includes playwriting and revising a television script or short film. Maximum credit six units.

ENGL 586. Selected Topics in English (1-3)
Selected topics in English. May be repeated with new content and approval of instructor. See Class Schedule for specific content. Limit of six units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

Comparative Literature
(See this section of catalog under Comparative Literature.)

GRADUATE COURSES
Refer to the Graduate Bulletin.

Environmental Engineering (ENV E)
In the Department of Civil, Construction, and Environmental Engineering
In the College of Engineering
NOTE: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

LOWER DIVISION COURSES

ENV E 101. Environmental Engineering Seminar (2)
Breadth and depth of environmental engineering field through presentations by invited faculty, graduate students, guests and seminar enrolees; including individual library research with written and oral presentations on selected environmental topics.

ENV E 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

ENV E 320. Designing Solutions for Environmental Problems (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations, I.I.A. Natural Sciences and Quantitative Reasoning.
Human interaction with the land, water and air environment: environmental pollution; role of engineering in solving environmental problems. Not open to civil or environmental engineering majors.
ENVE 355. Environmental Engineering (3)  
Prerequisites: Chemistry 200.  
Causes and effects of environmental problems and engineering methods to control them.

ENVE 455. Water and Wastewater Engineering (3)  
Prerequisites: Minimum grade of C in Environmental Engineering 355, Civil Engineering 444, and Engineering Mechanics 340.  
Water and wastewater. Physical, chemical, and biological methods of treatment. Advanced water treatment processes, Water reclamation. (Formerly numbered Environmental Engineering 555.)

ENVE 496. Advanced Environmental Engineering Topics (1-3)  
Prerequisites: Minimum grade point average of 3.0 and consent of instructor.  
Modern developments in environmental engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Environmental Engineering 496, 499 and 596.

ENVE 499. Special Study (1-3) Cr/NC  
Prerequisites: Minimum grade point average of 3.0 and consent of instructor.  
Individual study in the area of environmental engineering. Maximum credit six units for any combination of Environmental Engineering 496, 499 and 596.

**UPPER DIVISION COURSES**  
(Also Acceptable for Advanced Degrees)

ENVE 553. Environmental Engineering Laboratory (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Chemistry 200 and Environmental Engineering 355.  
Analysis of natural waters and wastewaters. Sampling and analysis of hazardous environmental pollutants. Techniques to analyze solid waste.

ENVE 554. Process Fundamentals of Environmental Systems (3)  
Equilibrium and kinetics of chemical and biological reactions of environmental systems. Considerations of mass-transfer and fluid dynamics in water quality management and air pollution control.

ENVE 556. Air Pollution Engineering (3)  
Prerequisites: Environmental Engineering 355.  

ENVE 558. Solid and Hazardous Waste Engineering (3)  
Prerequisites: Environmental Engineering 355.  
Municipal solid and hazardous solid wastes from an environmental engineering perspective, including waste minimization and recycling. Engineered volume reduction through composting, incineration, mechanical compaction, and other methods. Ultimate disposal, landfill design and legislative regulations.

ENVE 596. Advanced Environmental Engineering Topics (1-3)  
Prerequisites: Minimum grade point average of 3.0 and consent of instructor.  
Modern developments in environmental engineering. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units for any combination of Environmental Engineering 496, 499 and 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

For additional courses which are electives in the environmental engineering program, refer to “Civil Engineering” in this section of the catalog.

**GRADUATE COURSES**  
Refer to the Graduate Bulletin.
Exercise and Nutritional Sciences

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

EUROP 501. European Life and Culture (3)
Prerequisites: European Studies 301.
Specialized study of topics such as European union, European
women, or European art. May be repeated with new title and content.
See Class Schedule for specific content. Maximum credit six units.

EUROP 527. The Holocaust in Feature Films (3)
(Same course as History 527)
Two lectures and two hours of activity.
Prerequisites: Upper division or graduate standing.
Depiction of the Nazi policy of destroying European Jewry and its
impact on the perpetrators, bystanders, victims, and the post-war
world in feature films.

EUROP 560. Technologies and Methodologies: Language
Learning and Teaching (3)
Two lectures and two hours of activity.
Prerequisites: Advanced level foreign language competency.
Understanding foreign language competencies; create and use
technology-assisted learning and testing materials; review and eval-
uate foreign languages and methodologies.

EUROP 596. Topics in European Studies (3)
Prerequisites: European Studies 301 for majors and minors; upper
division standing for all others.
Specialized topics in contemporary European culture. May be
repeated with new content. See Class Schedule for specific content.
Limit of nine units of any combination of 296, 496, 596 courses appli-
cable to a bachelor’s degree. Maximum credit of six units of 596
applicable to a bachelor’s degree. Credit for 596 and 696 applicable
to a master’s degree with approval of the graduate adviser.

Exercise and Nutritional Sciences (ENS)

In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

Courses offered for one unit credit meet two hours per week
or equivalent.
“A” signifies a beginning class, “B” intermediate.

Dance activity courses: Ballroom Dance, Ethnic Dance, Bal-
et, Jazz Dance, Modern Dance. Refer to “Dance” courses in
this section of the catalog.

ENS 102. Conditioning (1)
ENS 104A-104B. Weight Training (1-1)
ENS 105. Individual Adaptives (1)
Prerequisites: Consent of instructor. A health history record is
required of each student.
Individual exercise programs for those who are handicapped in
some respect, or who have functional defects or deficiencies amea-
nable to improvement through exercise. May be repeated for credit.

ENS 108. Basketball (1)
(Formerly numbered Exercise and Nutritional Sciences 108A.)
ENS 109A-109B. Soccer (1-1)
ENS 110. Volleyball (1)
(Formerly numbered Exercise and Nutritional Sciences 110A.)
ENS 111A-111B. Softball (1-1)
ENS 116A-116B. Golf (1-1)
ENS 118A-118B. Tennis (1-1)
ENS 119A-119B. Bowling (1-1)
ENS 120. Badminton (1)
(Formerly numbered Exercise and Nutritional Sciences 120A.)

ENS 123. Racquetball (1)
(Formerly numbered Exercise and Nutritional Sciences 123A.)
ENS 124. Sailing (1)
ENS 130. Step Training (1)
ENS 137. Aerobic Dance (1)
(Formerly numbered Exercise and Nutritional Sciences 137A.)
ENS 138. Selected Activities (1)
May be repeated with new activity for additional credit. See Class
Schedule for specific content.

ENS 139A. Beginning Rock Climbing (1)
Two hours of activity.
Rock climbing concepts and theories. Active participation using
beginning techniques and training concepts.
ENS 139B. Intermediate Rock Climbing (1)
Two hours of activity.
Prerequisites: Exercise and Nutritional Sciences 139A.
Rock climbing concepts and theories. Active participation using
advanced techniques, training concepts, and lead climbing con-
cepts expected.
ENS 141A-141B. Martial Arts (1-1)
Exercise and Nutritional Sciences 141A is prerequisite to 141B.
ENS 145. Wakeboarding and Waterskiing (1)
ENS 146. Surfing (1)
ENS 147. Windsurfing and Kiteboarding (1)
Theory and mechanical skills of windsurfing and kiteboarding.
Proper rigging, body position, and sailing theory, right-of-way rules
and boating safety for good fundamental base to confidently con-
tinue both.

ENS 210. Introduction to Kinesiology (2)
(Selected sections offered as distance education)
Prerequisites: Consent of instructor. Overview of discipline of kinesiology.
Development of a basic phil-
osophy and background for entering profession.
ENS 241A. Physical Education of Children-Theory (1)
Prerequisites: Concurrent registration in Exercise and Nutritional
Sciences 241B.
Physical education of elementary school-aged children: Theoreti-
cal and scientific bases. Not open to kinesiology majors.
ENS 241B. Physical Education of Children-Activities (1)
Two hours of activity.
Prerequisites: Concurrent registration in Exercise and Nutritional
Sciences 241A.
Physical education of elementary school-aged children: Activities
and instruction. Not open to kinesiology majors.
ENS 265. Techniques in Athletic Training (1)
Prerequisites: Premajor in kinesiology. Credit or concurrent regis-
tration in Biology 212.
Athletic training techniques and emergency field care of athletic
injuries. Theory and techniques of basic athletic first aid, emergency
procedures including CPR, bandaging and taping.
ENS 265L. Techniques in Athletic Training Laboratory (1)
Three hours of laboratory.
Prerequisites: Premajor in kinesiology. Concurrent registration in
Exercise and Nutritional Sciences 265.
ENS 289. Preprofessional Practicum in Athletic Training (1)
Prerequisites: Credit or concurrent registration in Exercise and Nutritional
Sciences 265 and 265L.
Basic athletic training principles and techniques; athletic training
event coverage under direct supervision of a certified athletic trainer.
ENS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class
Schedule for specific content. Limit of nine units of any combina-
tion of 296, 496, 596 courses applicable to a bachelor’s degree.
UPPER DIVISION COURSES
( Intended for Undergraduates )

ENS 301. Physical Growth and Development (3)
Prerequisites: Exercise and Nutritional Sciences 210.
Principles of human growth; performance as affected by developmental levels and individual differences in structure and function.

ENS 302. History and Philosophy: Physical Activity and Sport (3)
Prerequisites: Exercise and Nutritional Sciences 210.
Integrated approach to understanding of historical, philosophical, and sociological forces shaping development of physical activity and sport.

ENS 303. Applied Kinesiology (3)
Prerequisites: Grade of C or better in Biology 212 and Exercise and Nutritional Sciences 210 or Dance 181. Proof of completion of prerequisites required: Copy of transcript. Limited to kinesiology majors.

ENS 304. Physiology of Exercise (3)
Prerequisites: Grade of C or better in Exercise and Nutritional Sciences 210 or Nutrition 101, and Biology 336. Proof of completion of prerequisites required: Copy of transcript. Limited to kinesiology majors.

ENS 304L. Exercise Physiology Laboratory (1)
Three hours of laboratory. Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 304.

ENS 305. Measurement and Evaluation in Kinesiology (3)
Prerequisites: Exercise and Nutritional Sciences 210 and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to kinesiology majors. Major Code: 08351.

ENS 306. Biomechanics of Human Movement (3)
(Selected sections offered as distance education)
Prerequisites: Exercise and Nutritional Sciences 303. Limited to kinesiology majors (Major Code: 08351) and biology (emphasis in bioengineering) majors (Major Code: 04011).

ENS 307. Motor Learning and Performance (3)
Prerequisites: Exercise and Nutritional Sciences 210, Psychology 101, and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to kinesiology majors (Major Code: 08351).

ENS 320. Skin and Scuba Diving (2)
Prerequisites: Medical examination, waiver for hazardous procedures, pass swimming competency test. Concurrent registration in Exercise and Nutritional Sciences 320L.

ENS 320L. Skin and Scuba Diving Laboratory (1)
Three hours of laboratory. Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 320.

ENS 322. Advanced Scuba Diving (2)
Prerequisites: Exercise and Nutritional Sciences 320 or Openwater Scuba Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Exercise and Nutritional Sciences 322L.

ENS 323. Assistant Scuba Instructor (2)
Prerequisites: Exercise and Nutritional Sciences 320 or Biology 306, Master Diver Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Exercise and Nutritional Sciences 323L.

ENS 324. Assistant Scuba Instructor Laboratory (1)
Three hours of laboratory. Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 324.

ENS 325. Exercise and Wellness Across the Lifespan (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Role of physical activity and exercise behavior in health and wellness. Personal applications plus gender and cultural implications of physical activity from childhood through adulthood.

ENS 330. Exercise and Wellness Across the Lifespan (3) [GE]
Prerequisites: Exercise and Nutritional Sciences 323 or Biology 306. Basic movement skills; be on an intercollegiate sport team in a corresponding area; or possess current certification in a corresponding area. Competency in a particular activity may be demonstrated by completion of a written and practical examination; maintaining a B average in corresponding exercise and nutritional sciences activity classes or transfer equivalents; be on an intercollegiate sport team in a corresponding area; or possess current certification in a corresponding area (e.g., lifeguard, aerobics instructor).

ENS 334A. Leadership for Kinesiology (2)
Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 325. Demonstrated skill and knowledge competencies in badminton, basketball, outdoor experience, physical fitness, self-defense, soccer, softball, swimming, tennis, volleyball. Competency in a particular activity may be demonstrated by completion of a written and practical examination; maintaining a B average in corresponding exercise and nutritional sciences activity classes or transfer equivalents; be on an intercollegiate sport team in a corresponding area; or possess current certification in a corresponding area (e.g., lifeguard, aerobics instructor).

ENS 341. Skill Competency in Physical Education (2) Cr/NC
Four hours of activity. Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 303.

ENS 341A. Leadership for Kinesiology (2)
Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 325. taed skill and knowledge competencies in badminton, basketball, outdoor experience, physical fitness, self-defense, soccer, softball, swimming, tennis, volleyball. Competency in a particular activity may be demonstrated by completion of a written and practical examination; maintaining a B average in corresponding exercise and nutritional sciences activity classes or transfer equivalents; be on an intercollegiate sport team in a corresponding area; or possess current certification in a corresponding area (e.g., lifeguard, aerobics instructor).

ENS 341B. Leadership for Kinesiology Activity (1)
Two hours of activity. Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 341A.
ENS 348. Special Physical Education (3)
   Prerequisites: Kinesiology or liberal studies upper division major status required.
   Etiologies, characteristics, education programs, and activities for individuals with non-physical disabilities (e.g. mentally retarded, learning disabled, etc.).

ENS 350. Sport in Antiquity (3)
   Prerequisites: Upper division standing.
   Athletics in ancient Greece and Rome. Role and scope of sporting competitions in ancient Greek and Roman cultures, and their influence on modern athletics.

ENS 363. Corrective Physical Education (3)
   Prerequisites: Exercise and Nutritional Sciences 203 and credit or concurrent registration in Exercise and Nutritional Sciences 304.
   Etiology, characteristics, and programs for children with corrective and/or physically handicapping conditions. Includes evaluating and implementing prescribed activities for individuals with these types of conditions.

ENS 365. Scientific Management of Sports Injuries (3)
   Prerequisites: Biology 201A; Exercise and Nutritional Sciences 265, 265L, 303, credit or concurrent registration in Exercise and Nutritional Sciences 306.
   Pathomechanics and pathophysiology of soft tissue and bone injury as it relates to the identification and management of sport related injuries.

ENS 367. Clinical Evaluation of Sports Injuries Part I (2)
   Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 303 and 389A.
   Theory of clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation of upper extremity, cervical spine. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 367L. Clinical Evaluation of Sports Injuries Part I (1)
   Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 303.
   Practical experience in clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation of upper extremity, cervical spine. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 368. Clinical Evaluation of Sports Injury Part II (2)
   Prerequisites: Exercise and Nutritional Sciences 367 and 367L.
   Theory of clinical evaluation of sports injury techniques and scientific basis of techniques. Systematic differential evaluation process applied to lower extremities, thoracic, and lumbar spine and chest and abdominal injuries. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 368L. Clinical Evaluation of Sports Injury Part II (1)
   Prerequisites: Exercise and Nutritional Sciences 367 and 367L.
   Concurrent registration in Exercise and Nutritional Sciences 368.
   Practical experience in clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation process applied to lower extremities, thoracic, and lumbar spine and chest and abdominal injuries. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 388. Adapted Physical Education Laboratory (1-4)
   Three hours of laboratory per unit.
   Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 348 or 363 or 367 and 367L; consent of instructor.
   Supervised clinical experience working in the adapted physical education laboratory setting on campus with individuals with disabilities. Maximum credit four units.

ENS 389A-389B-389C-389D. Practicum in Athletic Training (1-1-1-1)
   Prerequisites: Grade of B or better in Biology 212, Exercise and Nutritional Sciences 265, 265L, 289, application, letters of recommendation, and interview.
   389A. Grade of B or better in Exercise and Nutritional Sciences 389A.
   389B. Grade of B or better in Exercise and Nutritional Sciences 389B.
   389C. Grade of B or better in Exercise and Nutritional Sciences 389C.
   389D. Grade of B or better in Exercise and Nutritional Sciences 389D.
   Practical training and clinical applications of basic and advanced techniques of athletic training. Emergency, preventative procedures treatment, and rehabilitation techniques to be performed in actual athletic training settings. Practicum experience offered in conjunction with clinical internship.

ENS 397. Contemporary Topics in Kinesiology
   (Credit to be arranged) Cr/NC
   (Offered only in Extension)
   Prerequisites: Consent of instructor; bachelor's degree.
   Study of specially selected problems in physical education and sport. Does not apply to undergraduate degrees or credentials.

ENS 398. Supervised Field Experience (1-3) Cr/NC
   Prerequisites: Consent of department chair. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.
   Supervised practical experience in the area of kinesiology. Maximum credit six units.

ENS 401A. Musculo-Skeletal Fitness (1)
   Prerequisites: Exercise and Nutritional Sciences 104A or 104B or 341; Exercise and Nutritional Sciences 304, 304L, 306. Concurrent registration in Exercise and Nutritional Sciences 401B.
   Training techniques in areas of strength and flexibility. Examination of facilities and equipment, mechanics of strength and flexibility techniques, development of training program, basic physiology and review of current research in areas of strength and flexibility.

ENS 401B. Musculo-Skeletal Fitness Activity (1)
   Two hours of activity.
   Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 401A.
   Circulatory endurance, muscular strength and endurance, selection and care of equipment and facilities, and programs in the areas of flexibility, weight training and aerobics.

ENS 412. Leading Group Aerobic Exercise (1)
   Two hours of activity.
   Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L. Teaching group aerobic exercises including aerobic dance, step training, circuit training, and interval training. Students design and lead aerobic exercise, strength, and flexibility segments of a group of aerobic exercise class.

ENS 431. Administration of Exercise and Fitness Program (2)
   Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L.
   Administration and management of corporate, private, university-based, and hospital-based exercise programs.

ENS 432. Exercise, Fitness, and Health (2)
   Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L, 305. Concurrent registration in Exercise and Nutritional Sciences 432L.
   Exercise testing, programming and leadership for healthy persons of different ages, capacities, and needs.

ENS 432L. Exercise, Fitness, and Health (1)
   Three hours of laboratory.
   Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 432.
   Practicum in exercise testing, programming and leadership for healthy persons of different capacities, and needs.
ENS 433. Exercise, Sport, and Aging (3)
Prerequisites: Exercise and Nutritional Sciences 301 and 304.
Relationships between exercise, sport and human aging including physiological, psychological, sociological, health and program considerations. Aging is viewed developmentally with emphasis on the middle and later years.

ENS 434. Promoting Physical Activity and Health Behavior (3)
Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 432 and 433.
Theoretical approaches and personal, client, and population strategies for developing and maintaining health-related physical activity and associated behaviors.

ENS 440. Fitness Practitioner Internship (3)
Six hours of activity.
Prerequisite: Grade of B or better in Exercise and Nutritional Sciences 432, 432L, 433.
Selection and care of equipment and facilities; analysis of skill; progression for skills, drills and the game; lead-up activities; safety; performance cues; terminologies; skill evaluations; tactics and strategies.
A. Sport Applications I
B. Sport Applications II

ENS 442A. Physical Education for Elementary Schools (2)
Prerequisite: Exercise and Nutritional Sciences 305.
Objectives, curricula, activities, and application of basic scientific principles for the conduct of physical education in elementary schools.

ENS 442B. Physical Education for Elementary Schools Activity (1)
Two hours of activity.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 442A.

ENS 445. Current Issues in Physical Education (2)
Prerequisite: Exercise and Nutritional Sciences 441A.
Current issues relevant to physical education. Includes assessment, liability, curriculum standards, appropriate physical activity levels, and safety.

ENS 446A. Physical Education with Adolescents (2)
Prerequisites: Exercise and Nutritional Sciences 441A, 441B, 442A, 442B.
Basic requirements, principles, and concepts for conducting physical education with adolescents.

ENS 446B. Physical Education with Adolescents (1)
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 446A.
Application of basic requirements, principles, and concepts for conducting physical education with adolescents.

ENS 460. Professional Issues (1) Cr/NC
Prerequisite: Senior standing in prephysical therapy specialization.
Current issues relevant for one preparing to enter an allied health profession.

ENS 461. Sport and Exercise Psychology (3)
Prerequisite: Exercise and Nutritional Sciences 307.
Psychological factors underlying behavior in sport and physical activity. Emphasis on personality and motivational factors.

ENS 462. Therapeutic Modalities for Sports Injuries (3)
Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389A.
Theories and techniques for the design, implementation, evaluation, and application of rehabilitation modalities.

ENS 463. Principles and Techniques in Therapeutic Exercise (2)
Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365. For athletic training students, a grade of B or better in Exercise and Nutritional Sciences 389A. For kinesiotherapy students, credit or concurrent registration in Exercise and Nutritional Sciences 487A.
Design and application of therapeutic exercise programs for athletic injuries.

ENS 463L Principles and Techniques in Therapeutic Exercise Laboratory (1)
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 463.

ENS 465. Seminar in Organization and Administration in Athletic Training (2)
Prerequisite: Exercise and Nutritional Sciences 389A.
Professional issues in athletic training discipline, including topics in organization and administration.

ENS 466. Clinical Pathology for Athletic Trainers (3)
Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389C.
Clinical pathology associated with body systems, clinical recognition, management, and referral of non-orthopedic pathologies associated with physically active persons.

ENS 477. Therapeutic Practices of Kinesiotherapy (3)
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 487A.
Foundations of physical disability and description of pathological processes often treated in kinesiotherapy.

ENS 478. Organization and Administration of Kinesiotherapy (2)
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 487A.
Principles and practices of administration in kinesiotherapy.

ENS 487A. Kinesiotherapy Internship — Neurological (1)
Prerequisite: Acceptance in the kinesiotherapy professional program and completion of competency checklist.
Clinical experience in medically supervised exercise programs for individuals with neuromuscular disorders.

ENS 487B. Kinesiotherapy Internship — Fitness Throughout the Lifespan (1)
Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.
Clinical experience in medically supervised exercise programs designed for community dwellers of all ages and disabling conditions.

ENS 487C. Kinesiotherapy Internship — Fitness and Wellness (1)
Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.
Clinical experience in physical fitness facilities.

ENS 487D. Kinesiotherapy Internship — Psychiatric (1)
Prerequisites: Psychology 350; acceptance in the kinesiotherapy professional program and completion of competency checklist.
Clinical experience in psychiatric care facilities.

ENS 487G. Kinesiotherapy Internship — Evaluation and Client Care (1)
Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.
Clinical experience in medically supervised exercise programs with focus on general clinical practices and client care.

ENS 487H. Kinesiotherapy Internship — Fitness for Individuals with Disabling Conditions (1)
Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.
Clinical experience in medically supervised exercise programs designed for community dwellers with moderate to severe physical disabilities. Not open to students with credit in Exercise and Nutritional Sciences 487E and 487F.
Filipino/Finance

ENS 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

ENS 499. Special Study (1-3)
Prerequisites: Consent of department chair. Limited to kinesiology majors. Major Code: 08351.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ENS 500. Seminar in Neurophysiological and Mechanical Bases of Therapeutic Exercise (3)
Prerequisites: Exercise and Nutritional Sciences 462, 463, 463L.
Mechanical and neurophysiological framework for therapeutic exercise interventions. Applications to clinical practice.

ENS 596. Selected Topics in Exercise and Nutritional Sciences (1-3)
Selected topics in exercise and nutritional sciences. May be repeated with new content and approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Filipino (FILIP)

In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES
Native speakers of Filipino will not receive credit for taking lower division courses in Filipino except with advance approval from the department.
No credit will be given for Filipino 101, 102, 201 taken out of sequence.

FILIP 101. Elementary Filipino I (4) [GE]
Introduction to Filipino (Tagalog), with emphasis on everyday conversation. Focus on essentials of grammar and sufficient vocabulary for speaking and reading Filipino. Not open to students who have completed three years of high school Filipino unless the third course was completed five or more years ago.

FILIP 102. Elementary Filipino II (4) [GE]
Continuation of Filipino 101 with focus on grammar and oral proficiency. Emphasis on grammatical accuracy by responding orally to spoken and written inquiries. Not open to students who have completed four years of high school Filipino unless the fourth course was completed five or more years ago. Not open to students with credit in Filipino 201.

FILIP 201. Intermediate Filipino (4) [GE]
Prerequisites: Filipino 102.
Extensive review of all structures learned in Filipino 101 and 102. Integrated approach to learning Filipino by offering opportunities to acquire communicative skills while developing awareness and appreciation of the Filipino culture. Not open to students who have completed five years of high school Filipino unless the fifth course was completed five or more years ago.

Finance (FIN)

In the College of Business Administration

LOWER DIVISION COURSE

FIN 240. Legal Environment of Business (3)
Business legal system, sources of law, social and ethical influences, judicial and administrative systems, contracts, torts, bankruptcy, agency, business organizations, securities regulation, regulation of property, and protection of intellectual property interests.

UPPER DIVISION COURSES
(Intended for Undergraduates)

FIN 321. Managerial Economics (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Role of economic analysis in management decisions. Study of demand, cost, supply theories from a business viewpoint. Emphasis on managerial decision making.

FIN 323. Fundamentals of Finance (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Proof of completion of prerequisite required: Change of major form or other evidence of acceptable major code.
Objectives of financial management. Financing the business enterprise. Internal financial management. Introduction to the cost of capital, valuation, dividend policy, leverage, international finance, and the techniques of present value and its applications. Sources of capital.

FIN 325. Intermediate Finance (4)
Prerequisites: Finance 323 with minimum grade of C.

FIN 326. Financial Institutions Management (3)
Prerequisites: Finance 323.
Management of financial institutions including savings and loan associations, mutual savings banks, credit unions, private pension plans, brokerage houses, investment companies, consumer credit institutions, federal credit agencies, and commercial banks. Emphasis on internal financial management of these institutions.

FIN 327. Investments (3)
Prerequisites: Finance 323.
Measures of risk and return. Methods of security analysis, valuation, and capital asset pricing model. Portfolio theory and management; stocks, bonds, options, and futures; hedging; mutual funds and partnerships; and investment taxation.

FIN 328. Entrepreneurial Finance (3)
Prerequisites: Finance 323.
Financial management tools and techniques over the stages of life cycle of a venture: development, start up, rapid growth and maturity. Linkages between market opportunity, competitive position, composition, and sources of financing of the ventures.

FIN 329. International Business Finance (3)
Prerequisites: Finance 323.
Foreign exchange markets and instruments; international financial institutions; trade and balance of payments; exchange rate behavior and currency-risk hedging; cross-border investment; applications to management of international business.
FIN 331. Real Estate Essentials (3)
Prerequisites: Completion of lower division course requirements in business major or minor.
Fundamental operations of the real estate market; principles of real property valuation, financing, law, investment, brokerage, management, and development.

FIN 333. Law of Real Property (3)
Prerequisites: Finance 331.
Legal theory and practice of estates in land; landlord and tenant relationships; land transactions; mortgages and trust deeds; easements; land use; ownership rights in land; environmental law.

FIN 335. Land Markets and Real Estate Analysis (3)
Prerequisites: Finance 331.

FIN 421. Portfolio Management and Security Analysis (3)
Prerequisites: Finance 327.

FIN 423. Financial Analysis and Management (4)
Prerequisites: Finance 321 and 325. Strongly recommended: Accountancy 326.
Integration of various aspects of finance, application of financial theory. Financial decision making in the firm. Case study.

FIN 427. Derivatives and Financial Risk Management (3)
Prerequisites: Finance 323.
Introduce derivative instruments such as futures, options and swaps, nature of their markets and pricing methods. Applications of those instruments for hedging risks in equities, commodities, and exchange rates.

FIN 431. Real Estate Finance (3)
Prerequisites: Finance 331.
Methods of financing real estate; sources of funds; governmental financial agencies; feasibility analysis for various types of properties.

FIN 433. Theory of Real Property Value (3)
Prerequisites: Finance 331.
Introduction to theories of real property value. Techniques of value determination. Data analysis techniques.

FIN 435. Real Estate Investment Analysis (3)
Prerequisites: Finance 431 or 433.
Theories and methods of investment analysis applied to real estate. Integration of various aspects of real estate from the investors perspective. Use of computer models for investment decision making.

FIN 437. Real Estate Development (3)
Prerequisites: Finance 431; or Finance 325 and 327.

FIN 438. Mortgage Banking (3)
Prerequisites: Finance 431; or Finance 325 and 327.
Financing of commercial and residential real estate. Reviews operation and organization of primary and secondary markets for debt and equity financing instruments. Topics include loan origination, underwriting, servicing and default management, securitization and REITs.

FIN 445. Estate Planning (3)
Prerequisites: Finance 323.
Fundamentals of estate planning, social and family implications of federal/state taxation of transfers of wealth by gift or at death. Study of trusts, conservatorships, guardianship and postmortem planning. How planning is affected by business assets, employee benefits, and insurance.

FIN 496. Selected Topics in Finance (1-4)
Prerequisites: Consent of department chair. Selected areas of concern in finance. May be repeated with new content with consent of department chair. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

FIN 498. Investigation and Report (1-3)
Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with finance under the direction of one or more members of the finance staff. May be repeated with new content. Maximum credit six units.

FIN 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

FIN 522. Individual Insurance Management (3)
Prerequisites: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core.
Economic, legal, social, and ethical considerations of individual, business and group insurance including life, health, property, and liability insurance. Risk exposure and policy analysis.

FIN 523. Employee Benefit Planning (2)
Prerequisites: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core.
Employee benefit and pension planning, including regulation and taxation issues.

FIN 589. Personal Financial Planning (3)
Prerequisites: Finance 523.
Financial planning process including data gathering, cash flow and debt considerations, goal programming (including retirement and education funding), integration, plan formulation, and implementation. Practice management considerations including establishment of ethical and legal, client and professional relationships.

GRADUATE COURSES
Refer to the Graduate Bulletin.

French (FRENC)
In the Department of European Studies
In the College of Arts and Letters

LOWER DIVISION COURSES
Native speakers of French will not receive credit for taking lower division courses except with advance approval from the department.
All lower division courses in French are taught in French.
No credit will be given for lower division courses taken after successfully completing any upper division French course taught in French.
No credit will be given when French 100A, 100B, or the 200 series are taken out of sequence.

FRENC 100A. Elementary French I (5) [GE]
Interactive introduction to speaking, reading, and writing French in a cultural context. Essential language structures for communication at the novice level. Not open to students who have completed three years of high school French unless the third course was completed five or more years ago.

FRENC 100B. Elementary French II (5) [GE]
Prerequisites: French 100A or two years of high school French.
Continuation of French 100A. Not open to students who have completed four years of high school French unless the fourth course was completed five or more years ago.
Four hours per week in a 12 week period in the Paris Semester.
Development of intermediate level proficiency skills through lecture and work in small groups. Offered only through the Paris Semester study abroad program. This course satisfies the language graduation requirement.

FRENCH 201. Readings in French (3) [GE]
Prerequisites: French 100B or three years of high school French. Emphasis on reading. See Class Schedule for emphasis offered. Readings in French Culture, Readings in Francophone Culture, or Readings in Business French. Note: French majors, minors, and International Business majors are encouraged to enroll concurrently in French 210.

FRENCH 210. French Grammar (3) [GE]
Prerequisites: French 100B with a grade of C or better or three years of high school French. Comprehensive survey of French grammar at the intermediate level. Analysis and use of typical French structures. Note: French majors, minors, and International Business majors are encouraged to enroll concurrently in French 210.

FRENCH 220. Grammar of Spoken French (3) [GE]
Prerequisites: French 210. Analysis of grammar and use of modern French through study of cultural materials, for proficiency in oral communication. Note: French majors, minors, and International Business majors are encouraged to enroll concurrently in French 221.

FRENCH 221. Writing French (3) [GE]
Prerequisites: French 210 with a grade of C or better. Emphasis on written composition: study of a variety of prose models and practice in writing. Note: French majors, minors, and International Business majors are encouraged to enroll concurrently in French 221.

FRENCH 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)
All upper division courses in French are taught in French unless otherwise stated.

French 301 is not open to students who hold a French baccalauréat. French 301 and 302 may not be taken concurrently or out of sequence.

FRENCH 301. Advanced Grammar and Composition (3) [GE]
Prerequisites: Minimum 12 units of 200-level French, to include French 221 with a grade of C or better, and completion of the General Education requirement in Foundations II.C.. Humanities. General Education prerequisite not required for French majors. Advanced grammar and stylistics, intensive writing practice focused on a theme in French culture.

FRENCH 302. Translation and Stylistics (3) [GE]
Prerequisites: French 301 with a grade of C or better, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors. Comparative stylistics of French and English, taught through translation.

FRENCH 304. Phonetics and Oral Proficiency (3)
Two lectures and two hours of activity. Prerequisites: Upper division standing in French. Phonetic theory, listening, intonation and transcription practice, corrective phonetic and intonation exercises. Study of varieties of Francophone oral expression.

FRENCH 305A. Survey of French Literature (3) [GE]
Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors. Important movements, authors, and works in French literature from the Middle Ages to the Revolution.

FRENCH 305B. Survey of French Literature (3) [GE]
Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors. Important movements, authors, and works in French literature from the Revolution to present.

FRENCH 400. Advanced French in Paris (3)
Prerequisites: Twelve units of 200-level French. Development of advanced level proficiency skills through writing and speaking. Offered only through the Paris Semester study abroad program.

FRENCH 421. French Civilization (3) [GE]
Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors. French civilization from Middle Ages to the present. Artistic, intellectual achievements and cultural movements.

FRENCH 422. Contemporary France (3) [GE]
Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors. Contemporary France, emphasizing political, economic and social structures as well as artistic, intellectual, and cultural trends.

FRENCH 423. Commercial French (3)
Prerequisites: French 301. Proof of completion of prerequisite required: Copy of transcript. French commercial practices and language, the enterprise, correspondence, advertising, telecommunications, banking, transportation, import-export, insurance, accounting, stock market, preparation for the Certificate offered by the Paris Chamber of Commerce.

FRENCH 424. French Cinema and Theory (3) [GE]
Two lectures and two hours of activity. Prerequisites: Twelve units of lower division French. General Education students must also have completed Foundations II.C. Humanities. French cinema emphasizing social, political, and cultural changes in modern France. Topics include film theory, the new wave, history in cinema, influence of feminism, French colonialism, race, class, and gender in modern culture. Taught in English.

FRENCH 465. Africa in Literature and Film (3) [GE]
(Same course as Africana Studies 465)
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors. African cultural history through literature and film. Consistency/variety of African cultural expressions and conventions in literature and film. Taught in English.

FRENCH 495. French Internship (3) Cr/NC
Prerequisites: Upper division standing in major and consent of instructor. Practical work experience in a field related to French and Francophone studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international requirement for major.

FRENCH 496. Topics in French Studies (1-4)
Topics in French literature, culture and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit nine units. May be taught in English.
FRENC 499. Special Study (1-3)  
Prerequisites: French 302, 305A, 305B.  
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in French available in any given semester.  

**UPPER DIVISION COURSES**  
(Also Acceptable for Advanced Degrees)

**FRENC 501. Translation (3)**  
Prerequisites: French 302.  
Stylistic comparison of French and English through translation of a variety of prose styles from English to French and from French to English.

**FRENC 520. French and Francophone Literary Studies (3)**  
Prerequisites: French 302 and 305A or 305B.  
Specialized study of a century, genre, movement or theme in French and Francophone literature. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

**FRENC 530. French and Francophone Cultural Studies (3)**  
Prerequisites: French 302 and 421 or 422.  
Specialized study of artistic and intellectual trends, customs, and politics in French and Francophone culture. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

**FRENC 596. Topics in French Studies (1-4)**  
Prerequisites: French 302.  
Topics in French literature, culture, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

**GRADUATE COURSES**  
Refer to the Graduate Bulletin.

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**General Mathematics Studies (GMS)**  
In the Department of Rhetoric and Writing Studies  
In the College of Arts and Letters

**LOWER DIVISION COURSES**  
(Non-Baccalaureate Credit)

General mathematics studies courses numbered below 100 may not be used to satisfy general education or graduation requirements.

**GMS 90. Fundamentals of Mathematics (3) Cr/NC/RP**  
Prerequisites: Appropriate score on the CSU Entry-Level Mathematics Examination (ELM), the General Mathematics Studies diagnostic test, or other standardized mathematics examination.  
Review of arithmetic and elementary algebra; topics from geometry covered in adjunct workshops (General Mathematics Studies 98A). Students earning "Cr" (credit) should enroll in General Mathematics Studies 91. Students earning "RP" (report in progress) go to specially designated sections of General Mathematics Studies 91. Students earning "NC" (no credit) should repeat General Mathematics Studies 90. May be repeated with consent of instructor. Maximum credit six units. (Formerly numbered General Studies 90A.)

*GMS 91. Intermediate Algebra (3) Cr/NC*  
Prerequisites: Credit in General Mathematics Studies 90 or appropriate score on the ELM.  
A review of intermediate algebra skills. Topics include polynomials, rational and radical expressions, complex numbers, linear and quadratic equations (and graphs), systems of equations, set and function notation, conic sections, exponential and logarithmic functions, and sequences and series. Credit in General Mathematics Studies 91 satisfies the Mathematics Placement Examination, Part IA and Entry Level Mathematics Examination requirements.

**GMS 98. Mini-Course: Selected Topics (1) Cr/NC**  
Assorted short courses which will cover a variety of general mathematics skills through intensive lectures and laboratory work. Suggested topics: Communication skills, research tools, and learning skills. See Class Schedule for specific content. Credit earned in courses from this series is not applicable to a bachelor’s degree.  
A. Learning Skills  
B. Communication Skills

* The ELM requirement is satisfied by this course only if the student has already attempted and failed the ELM.

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**General Studies (GEN S)**

**LOWER DIVISION COURSES**

**GEN S 100. University Seminar (1) Cr/NC**  
Prerequisites: Open only to freshmen.  
Provides opportunities to interact with faculty and staff in a small group setting. Students acquire study and interpersonal skills for academic and personal success. Special sessions are offered featuring campus resources including library, advising, career, health and wellness services.  
A. University Seminar  
B. Learning in Communities  
C. Living/Learning Community

**GEN S 200. Professional Experience and Community Service (1-3) Cr/NC**  
Prerequisites: Twelve units of college credit, minimum grade point average of 2.0, concurrent participation in professional or community service activity, and approval of course contract.  
Academic work designed with faculty approval to complement concurrent paid or unpaid professional or community service experience. Information and course contract forms available in Division of Undergraduate Studies, AD-101. Applications must be submitted to the division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor’s degree.

**GEN S 250. Interdisciplinary Topics (1-4)**  
Interdisciplinary selected topics course. To enroll contact the faculty adviser of the department offering the course. May be repeated with new content. Maximum credit four units.

**GEN S 255. Bounce Back Retention Seminar (1) Cr/NC**  
Prerequisites: Academic probation students only. All participants sign Institutional Review Board (IRB) consent form.  
In a highly interactive, small group setting, students learn a variety of skills, such as time management, test taking, class preparedness, and study skills, in order to strengthen performance. Students learn what personal attributes contribute to academic success and learn how to recognize and expand on these characteristics.
GEN S 260A-260B-260C. Composing Identities (3-3-3) [GE]
Prerequisite for 260A: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (CR) in Rhetoric and Writing Studies 92A or 92B or 97. Interdisciplinary course that explores the richness of human identity in diverse cultures. Nine-unit package taught by three faculty members, emphasizes discussion seminars and active learning, including a community-based service learning project. See Class Schedule for specific content. General Studies 260A not open to students with credit in Africana Studies 120, Chicana and Chicano Studies 111B, English 100, Linguistics 100, Rhetoric and Writing Studies 100, 101, or higher-numbered composition course. (General Studies 260A formerly numbered General Studies 250A entitled Composing Identities: Writing. General Studies 260B formerly numbered General Studies 250B entitled Composing Identities: Humanities. General Studies 260C formerly numbered General Studies 250C entitled Composing Identities: Social and Behavioral Sciences.)

GEN S 260D-260E-260F. Imagining Communities (3-3-3) [GE]
Prerequisites: Satisfaction of the SDSU writing competency requirement and General Studies 260A or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. Interdisciplinary exploration of diverse human communities as they are imagined, expressed, and transformed. Nine-unit package taught by three faculty members, emphasizes discussion seminars and active learning, including a community-based service learning project. See Class Schedule for specific content. General Studies 260D not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, Linguistics 200, or Rhetoric and Writing Studies 200. General Studies 260D formerly numbered General Studies 250D entitled Imagining Communities: Humanities. General Studies 260E formerly numbered General Studies 250E entitled Imagining Communities: Social and Behavioral Sciences.)

LOWER DIVISION COURSES

GEN S 321. Gay and Lesbian Identities in the Modern World (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Interdisciplinary field of lesbian and gay studies with attention to social and political institutions and development of personal identity. Topics include discrimination, internalized homophobia, political activism, and diversity within lesbian, gay, bi-sexual, and transgendered community.

GEN S 322. Gay and Lesbian History and Culture (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Interdisciplinary field of lesbian and gay studies with attention to history and artistic expression. Topics include varying attitudes toward homosexuality in history, as well as literary, artistic, theatrical, and musical contributions of the lesbian, gay, bi-sexual, and transgendered community.

GEN S 330. Plagues Through the Ages (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Political, economic, religious, and cultural effects of disease. Significant role epidemics and disease have played in development of civilizations from beginning of recorded history to present.

GEN S 340. Confronting AIDS (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning, I.B. Social and Behavioral Sciences, and I.C. Humanities. Examines the AIDS epidemic from historical, epidemiological, biological, medical, psychological, political, legal, and ethical perspectives.

GEN S 350. Interdisciplinary Topics (1-4)
Interdisciplinary selected topics course. To enroll contact the faculty advisor of the department offering the course. May be repeated with new content. Maximum credit four units.

GEN S 400. Professional Experience and Community Service (1-3) Cr/NC
Prerequisites: Upper division standing, minimum grade point average of 2.0, concurrent participation in professional or community service activity and approval of course contract. Completion of prerequisites required.

Academic work designed with faculty approval to complement concurrent paid or unpaid professional or community service experience. Information and course forms available in Division of Undergraduate Studies, AD-101. Applications must be submitted to the division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor’s degree.

GEN S 410. Civilization Through Travel-Study (2-3)
Prerequisites: Upper division standing. Civilization through faculty-supervised foreign travel-study. Requires lecture attendance, excursions and site visits, examinations and written reports.

GEN S 420. Disability and Society (3) [GE]
Prerequisites: Psychology 101, Sociology 101, or Anthropology 101, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. Range of human experience of individuals with disabilities: attitudes toward individuals and interrelationship between societal institutions and needs of people with disabilities; historical response to these needs and contemporary issues with particular emphasis on normalization, integration, and community living.

GEN S 450. Life and Culture Semester Abroad (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities. Life and culture of a foreign country through an approved “semester abroad” program sponsored by an academic department or program at SDSU. Requires lecture attendance, excursions and site visits, examinations and written reports. See Class Schedule for geographic location.

Geography (GEOG)

In the College of Arts and Letters

LOWE DIVISION COURSES

GEOG 101. Principles of Physical Geography (3) [GE]
Principles underlying the fundamental nature and dynamics of the physical world: the atmosphere, hydrosphere, biosphere, lithosphere, and their systematic spatial relationships. Note: Cannot be used for General Education in combination with Anthropology 101.

GEOG 101L. Physical Geography Laboratory (1) [GE]
Three hours of laboratory. Prerequisites: Credit or concurrent registration in Geography 101. Practical exercise and observation in map analysis, weather elements, climatic regions, and the earth’s landform features. Designed to supplement Geography 101.

GEOG 102. Principles of Cultural Geography (3) [GE]
Introduction to cultural geography, covering the elements of culture, such as technology, language, religion, political organization, methods of livelihood, settlement patterns and population, and the regional distribution of these elements over the earth. Field trips may be arranged.

GEOG 103. Weather and Climate (3) [GE]
The composition, structure, and circulation of the atmosphere, including elementary theory of storms and other weather disturbances. Note: Cannot be used for General Education in combination with Anthropology 101.
GEOG 104. Geographic Information Science and Spatial Reasoning (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.
Fundamental concepts in geographic information systems, cartography, remote sensing, spatial statistics, and global positioning systems. Use of critical technologies in addressing human and environmental problems.

GEOG 106. World Regional Geography (3) [GE]
Cultural and world geography, focusing on elements of culture as applied to regions of the world: ethnicity, language, religion, urbanization, economics, political organization. Alternative conceptions about geography held by children, adults, and individuals of different cultures.

GEOG 296. Experimental Topics (1-4)
Selected topics. May be repeated with new context. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

GEOG 303. Severe Weather (3)
Physical processes, human responses, and mitigation strategies related to atmospheric hazards, including blizzards, wind storms, severe thunderstorms, tornadoes, hurricanes, heat waves, floods, and drought.

GEOG 312. Culture Worlds (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.
Geographical characteristics and development of major cultural realms of the world. Spatial components of contemporary conflict within and between these regions. Not open to students with credit in Geography 106.

GEOG 321. United States (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.
Systematic and regional analysis of physical and cultural landscapes of the United States.

GEOG 323. Middle America (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.
The land and peoples of Mexico, Central America, and the islands of the Caribbean; a survey of the resources, economies, and trade of the region. Field trips may be arranged.

GEOG 324. South America (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.
The physical regions and human geography of South America, including the history of colonization and the exploitation of resources.

GEOG 336. Europe (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.
Systematic analysis of the geographic bases of modern European life. Regional investigation of countries of Europe except the Soviet Union.

GEOG 353. Location of Economic Activity (3)
Prerequisite recommended: Geography 101 or 102.
International arrangement and interrelationship of resources, production, exchange and consumption; principles and theory in industrial location; world trade and economic development selecting favorable locations for capital investments, determining growth potential of service and market areas, meeting environmental impact requirements.

GEOG 354. Geography of Cities (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.
Survey of the location, function and spread of cities; the spatial and functional arrangement of activities in cities, leading to an analysis of current urban problems: sprawl, city decline, metropolitan transportation. Field trips may be arranged.

GEOG 370. Environmental and Natural Resource Conservation (3) [GE]
Prerequisites: Geography 101 or 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.
Quality of environmental and natural resources within changing human and natural systems: pollution problems; preservation of open space, habitats, and wilderness; and conservation of natural resources.

GEOG 378. Environmental Geomorphology (3)
Prerequisites: Geography 101 and Mathematics 121 or 150.
Introduction to environmental physiographic dynamics. Assessment of man’s role in these dynamics and their effect on urban and rural land use, including such topics as induced erosion, landslides, and flooding.

GEOG 380. Map Investigation (3)
Two lectures and three hours of laboratory. Prerequisites: Geography 101 or 102.
Use of the map as an analytical tool in geography. History of developments in cartography.

GEOG 381. Computerized Map Design (3)
Two lectures and three hours of laboratory. Prerequisites: Geography 101 or 102.
Art and science of creating digital maps as media for describing and analyzing geographic phenomena. Computer laboratory instruction and practice in cartographic techniques with emphasis on thematic maps and geographic information systems.

GEOG 385. Spatial Data Analysis (3)
Prerequisites: Geography 101 or 102; Statistics 250 or comparable course in statistics.
Analysis of spatially distributed data including computer applications. Spatial sampling, descriptive statistics for areal data, inferential statistics, use of maps in data analysis.

GEOG 401. Geomorphology (3)
Prerequisites: Geography 101.
Morphology and genetic interpretation of the relief features of the earth’s surface.

GEOG 409. Global Climate Change (3)
Prerequisites: Geography 101 or 103.
Global climate system and feedbacks with biosphere. Past climates and potential future changes, including changes in greenhouse gases, ozone depletion and acid rain. Predictions and uncertainty regarding changes including natural and anthropogenic causes.

GEOG 483. Watershed Analysis (3)
Prerequisites: Geography 101.
Watershed analysis is an organizing framework for collecting and analyzing scientific information to facilitate environmental management. Framework examined from both an ecological process and an environmental management perspective.

GEOG 484. Geographic Information Systems (3)
Two lectures and three hours of laboratory. Prerequisites: Three units from Geography 380, 381, 587, or from computer programming.
Procedures for encoding, storage, management, and display of spatial data; theory of computer-assisted map analysis; examination of important geographic information systems.
GEOG 495. Geography Capstone (1) Cr/NC
Prerequisites: Senior standing in geography (or environmental sciences with an emphasis in watershed science) with the expectation of graduating during the academic year in which the course is taken.
Synthesis of knowledge gained by students in upper division geography courses at SDSU, based on in-class essays and creation of a portfolio outlining learning experiences in geography. Practical information to prepare for professional employment.

GEOG 496. Selected Studies in Geography (3)
Prerequisites: Six units in geography.
Critical analysis of problems within a specific field of the discipline. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units. Field trips may be arranged.

GEOG 498. Senior Thesis (3)
Prerequisites: An overall grade point average of 3.0 and consent of department.
A written thesis based on an individual research project.

GEOG 499. Special Study (1-3)
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

GEOG 504. Coastal and Submarine Geomorphology (3)
Prerequisites: Geography 101 and Mathematics 121 or 150.
Analysis of marine waves, of their modification in shallow waters, of coastal currents and tides. Interpretation of coastal and submarine relief in relation to environmental processes and their modification by humans. Field trips may be arranged.

GEOG 505. Fluvial Geomorphology (3)
Prerequisites: Geography 401.
Physical foundation of river systems. Geographic variability in river channels and influence of human activities on fluvial forms and processes. Role of fluvial geomorphology in river and watershed management. Field trips may be arranged.

GEOG 507. Geography of Natural Vegetation (3)
Prerequisites: Geography 101.
The natural vegetation associations of the world, their distribution, classification and development, including relationship to human activities. Field trips may be arranged.

GEOG 508. Environmental Climatology (3)
Prerequisites: Geography 103; Mathematics 121 or 150.
Interaction between the atmosphere and earth surface. Solar and thermal radiation, turbulent heat transfer, soil heat transfer. Change in the atmosphere due to natural variations and human activity. Impacts on the environment.

GEOG 509. Regional Climatology (3)
Prerequisites: Geography 103.
The causes of climatic types as they occur throughout the world. Principles of several climatic classifications.

GEOG 511. Hydrology and Global Environmental Change (3)
Prerequisites: Geography 101 or 103.
Hydrologic processes and regimes, how these are affected by environmental change and how hydrologic process and regimes affect patterns of environmental change. Processes operating at global, regional, and local scales are examined, including land-use/land-cover change and climate change.

GEOG 554. World Cities: Comparative Approaches to Urbanization (3)
Prerequisites: Geography 354.
Worldwide trends in urbanization. Case studies of selected cities from various culture areas with focus on international variations in city structure and urban problems.

GEOG 555. Location and Spatial Structure of Cities (3)
Prerequisites: Geography 354 or three units of upper division coursework in a related field.
Principles and characteristics of urban growth and settlement; the internal structure and functioning of urban centers; spatial models of urban land use; growth management, transportation problems, and sociopolitical urban problems. Field trips may be arranged.

GEOG 559. Urban Transportation Geography (3)
Prerequisites: Three units of upper division urban or transportation coursework in geography or related field.
Urban transportation networks and their effects, past, present and future, on the economy and physical structure of the urban region. Field trips may be arranged.

GEOG 570. Environmental Resource Conservation (3)
Prerequisites: Geography 370.
Management of environmental and natural resources. Effective programs and the institutional frameworks in which they occur.

GEOG 572. Land Use Analysis (3)
Prerequisites: Geography 370.
Problems of maintaining environmental quality in the process of land conversion from rural to urban uses with emphasis on land capability and suitability studies. Field trips may be arranged.

GEOG 573. Population and the Environment (3)
Prerequisites: Geography 102.
Population distribution, growth, and characteristics as they relate to environmental degradation, both as causes and consequences. Roles of women, sustainable development, carrying capacity, optimum population, and policy initiatives in relationships between population and environment.

GEOG 574. Water Resources (3)
Prerequisites: Geography 370.
Occurrence and utilization of water resources and the problems of water resource development. Field trips may be arranged.

GEOG 575. Geography of Recreational Land Use (3)
Prerequisites: Geography 101 or 102.
Importance of location and environment in the use, management, and quality of recreation areas. Field trips are required.

GEOG 581. Cartographic Design (3)
Two lectures and three hours of laboratory.
Prerequisites: Geography 381.
Computer-assisted map production techniques with emphasis on map design and color use.

GEOG 583. Internet Mapping and Distributed GIServices (3)
Two lectures and three hours of laboratory.
Prerequisites: Geography 381 or 484.
Current development of Internet mapping and cartographic skills for web-based maps (multimedia, animation, and interactive design). Fundamental theories of distributed GIS to support Internet mapping with focus on distributed component technologies, Internet map servers and web services. Not open to students with credit in Geography 582.

GEOG 584. Geographic Information Systems Applications (3)
Two lectures and three hours of laboratory.
Prerequisites: Geography 484 or 587.
Conceptualization, completion, and implementation of geographic information systems (GIS) at local, regional, national, and global levels. Spatial analysis and modeling with GIS. GIS in planning, management, and research.

GEOG 585. Quantitative Methods in Geographic Research (3)
Prerequisites: Geography 385.
Application of statistical techniques to geographic research including simple regression and correlation, multiple regression, classification, factor analysis, and computer applications.
GEOG 586. Qualitative Methods in Geographic Research (3)  
Prerequisites: Geography 102.  
Application of qualitative techniques to geographic research including reflexive survey design and in-depth interviews, non-obtrusive methods, landscape interpretation, textual methods and discourse analysis, feminist criticism, and humanistic and historical materialist perspectives on measurement.

GEOG 587. Remote Sensing of Environment (4)  
Three lectures and three hours of laboratory.  
Prerequisites: Geography 101. Recommended: Physics 180A-180B.  
Techniques for acquiring and interpreting remotely sensed data of environment. Electromagnetic radiation processes, aerial photographic systems, and human interpretation of aerial and satellite imagery. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes and resources. (Formerly numbered Geography 488.)

GEOG 588. Intermediate Remote Sensing of Environment (4)  
Three lectures and three hours of laboratory.  
Prerequisites: Geography 385 and 587.  
Multispectral remote sensor systems and interpretation of imagery from nonphotographic systems. Computer-assisted image processing. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes.

GEOG 589. GIS-Based Decision Support Methods (3)  
Prerequisites: Geography 484.  
Integration of Geographic Information Systems (GIS) with decision support techniques for problem-solving and decision-making. Public participation and collaborative use of GIS for location-based planning and resource management.

GEOG 595. Geographic Internship (3)  
Prerequisites: Six upper division units in geography and consent of instructor.  
Students will be assigned to various government agencies and industry and will work under the joint supervision of agency heads and the course instructor. Maximum credit three units.

GEOG 596. Advanced Topics in Geography (1-3)  
Prerequisites: Six upper division units in geography.  
Advanced special topics in geography. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES  
Refer to the Graduate Bulletin.

Geological Sciences (GEOL)  
In the College of Sciences  
LOWER DIVISION COURSES

GEOL 100. Planet Earth (3) [GE]  
(Selected sections offered as distance education)  
Earth’s global systems. Plate tectonics, earthquakes, and volcanoes; evolution of our planet and life through geologic time; economic resources including fossil fuels and precious minerals; agents of erosion that shape the land.

GEOL 101. Dynamics of the Earth Laboratory (1) [GE]  
Three hours of laboratory.  
Prerequisites: Credit or concurrent registration in Geological Sciences 100.  
Hands-on experience with land forms, rocks, minerals, topographic maps, and aerial photographs. Includes demonstrations and field trips. Designed to accompany and augment Geological Sciences 100.

GEOL 104. Earth Science (3) [GE]  
Earth’s four principal reservoirs and their interconnectedness: solid earth, ocean, atmosphere, and biosphere. How humanity affects and is affected by these reservoirs. Most appropriate for liberal studies majors.

GEOL 200. Geologic Inquiry and Problem Solving (3)  
Two lectures and three hours of laboratory.  
Scientific thought process using real problems addressed by student research in field and laboratory. Includes written report and oral presentation.

GEOL 205. Historical Geology (4)  
Three lectures and three hours of laboratory. Arrangement for field study during the semester.  
Prerequisites: Geological Sciences 100 and 101.  
Evolutionary history of earth as traced through rock and fossil records. Stratigraphic and depositional concepts. (Formerly numbered Geological Sciences 105.)

GEOL 221. Mineralogy (4)  
Two lectures and six hours of laboratory.  
Prerequisites: Credit or concurrent registration in Geological Sciences 200; Oceanography 100 or Geological Sciences 100 and 101 or Geological Sciences 101 and 104; high school chemistry and trigonometry, or credit or concurrent registration in college chemistry and trigonometry.  
Practice in determination of common minerals; their geologic environment, utilization, and economic significance. Introduction to optical techniques in mineral identification.

GEOL 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES  
(Intended for Undergraduates)

GEOL 300. Computer Applications in Geology (3)  
Two lectures and three hours of laboratory.  
Theory and practice of computer-based quantitative analysis in geological sciences to include spreadsheets and statistics, simple programming, vector graphics, visualization and image-processing, and an introduction to Geographic Information Systems.

GEOL 301. Geology of National Parks and Monuments (3) [GE]  
(Selected sections offered as distance education)  
Prerequisites: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.  
Geology of a group of national parks and monuments, selected for their geological significance, scenic beauty, and visitor popularity. Not acceptable for a major in geological sciences.

GEOL 302. Fossils: Life Through Time (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.  
Traditional and recently discovered aspects of history of life on earth. Topics from the origin of life to extinctions. Not acceptable for a major in geological sciences.

GEOL 303. Natural Disasters (3) [GE]  
Prerequisites: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.  
Geologic processes that have dramatically affected the human race: earthquakes, volcanoes, landslides, and floods. Not acceptable for a major in geological sciences.
### Geological Sciences

**GEOL 304. Planetary Geology (3) [GE]**  
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Geological Sciences 300.  
Structure, evolution, and surface features of planets from a geological point of view. Insights gained into origin and evolution of planetary bodies provide greater understanding of how planet earth operates and why it is unique. Not acceptable for a major in geological sciences.

**GEOL 305. Water and the Environment (3) [GE]**  
Prerequisites: Geological Sciences 100 or Geography 101 and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.  
Movement of fresh water on earth. Hydrologic cycling of water from precipitation, runoff, infiltration, stream and groundwater flow to the ocean. Problems caused by over-use of water resources, urbanization, and water pollution examined with case studies. Not acceptable for a major in geological sciences, emphasis in hydrogeology.

**GEOL 306. Structural Geology and Field Methods (5)**  
Two lectures and three hours of laboratory and six weekends in the field.  
Prerequisites: Geological Sciences 300, 324; algebra, trigonometry, at least high school physics. Highly recommended: First semester college physics.  
Integrates structural and introductory field geology. Principles, causes, and mechanisms of rock deformation combined with field study. Graphical, computer, and analytical techniques for working with folds and faults are applied in the field. Field observations are presented in geologic maps, cross sections, and reports.

**GEOL 307. Geophysics and Field Methods (4)**  
Two lectures and three hours of laboratory and a minimum of three weekends in field during semester.  
Prerequisites: Geological Sciences 306; Mathematics 150; Physics 180A or 195.  
Principles and field studies of gravity, magnetic, and seismic techniques applied to structure, dynamics, and shallow environment of the earth. Computer-aided data reduction and interpretation.

**GEOL 324. Petrology (4)**  
Two lectures and six hours of laboratory.  
Prerequisites: Geological Sciences 221.  
Composition, classification, occurrence, and origin of igneous, sedimentary, and metamorphic rocks. Identification of rocks in hand specimen; petrographic analysis of rocks in thin section; modeling and interpretation of petrologic data. (Formerly numbered Geological Sciences 224.)

**GEOL 412. Processes and Inquiry in the Earth Sciences (4)**  
Three lectures and two hours of activity.  
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.  
Investigation of processes of inquiry and rational thinking skills characteristic of the earth sciences. (Formerly numbered Natural Science 412D.)

**GEOL 496. Selected Topics in Geology (1-4)**  
Prerequisites: Consent of instructor.  
Selected topics in geology and related earth sciences. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit four units.

**GEOL 498A. Senior Seminar (1) Cr/NC**  
Prerequisites: Senior standing in geological sciences.  
Preparation of written and oral scientific reports and attendance at departmental seminars.

**GEOL 498B. Senior Thesis (2)**  
Prerequisites: Consent of instructor.  
Individual research project, written thesis, and oral presentation done under supervision of professor chosen by student.

**GEOL 499. Special Study (1-4)**  
Prerequisites: Acceptable grade average in at least 12 upper division units within the major and consent of staff.  
Individual study in field, library, laboratory, or museum work. Maximum credit four units.

**UPPER DIVISION COURSES**  
(Also Acceptable for Advanced Degrees)

**GEOL 502. Geology of North America (3)**  
Prerequisites: Geological Sciences 205.  
A regional analysis of North American geology, its structural, stratigraphic, and tectonic patterns, and hypotheses concerning their origin and evolution.

**GEOL 505. Photogeology and Remote Sensing (3)**  
Two lectures and three hours of laboratory.  
Prerequisites: Geological Sciences 200.  
Geologic interpretation of aerial and satellite photographs, elementary stereoscopy and stereometry applied to structural and stratigraphic problems, and compilation of geologic maps from annotated aerial and satellite photographs.

**GEOL 508. Advanced Field Geology (4 or 6)**  
One lecture and three hours of laboratory plus 28 days in the field. For the option with six units: two additional weeks of field or laboratory work.  
Prerequisites: Geological Sciences 306.  
Investigation of individually assigned areas, preparation of geologic maps, geologic sections, and gathering other types of data, e.g., petrologic, geophysical, or paleontologic, as appropriate. Students are responsible for cost of food and transportation.

**GEOL 514. Process Geomorphology (3)**  
Two lectures and three hours of laboratory.  
Prerequisites: Geological Sciences 306.  
Processes shaping and affecting the earth’s surface, and application of resultant land forms in interpretation of geologic structure, stratigraphy, and neotectonics.

**GEOL 520. Ore Deposits (3)**  
Prerequisite: Geological Sciences 306.  
Geologic relations, origin, distribution, and economics of metallic and nonmetallic mineral deposits.

**GEOL 521. Petroleum Geology (3)**  
Prerequisites: Geological Sciences 306.  
History of petroleum exploration; statistics of energy use; principles of well logging; theories of petroleum generation, migration, and accumulation; exploration and production techniques; case studies of important oil fields.

**GEOL 530. Geochemistry (3)**  
Prerequisites: Geological Sciences 324; Chemistry 201; Mathematics 150.  
Fundamental principles of low- and high-temperature geochemistry. Origin of the elements; formation of the solar system; differentiation of the earth; weathering at the earth’s surface; chemistry of natural waters. Laboratory methods applied to geological problems. Not open to students with credit in Geological Sciences 530L.

**GEOL 533. Geophysical Analysis (3)**  
Two lectures and three hours of laboratory.  
Prerequisites: Geological Sciences 307, Mathematics 252, Physics 197. Recommended: Physics 195L, 196L, 197L.  
Analog and digital data collection, processing, modeling and error estimation. Computer-aided examples and field tests from seismics, gravity, magnetics, and electromagnetics including magnetoTellurics.

**GEOL 536. Sedimentology and Lithostratigraphy (3)**  
Two lectures and three hours of laboratory.  
Prerequisites: Geological Sciences 205 (not required but recommended for Emphases in Geochemistry and Geophysics) and 324.  
Sedimentologic description and interpretation of the textures and structures of sediments and sedimentary rocks. Stratigraphic analysis of stratal succession, age relationships, and correlation on local and global scales.
GEOL 537. Geobiology (3)
Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 205 and either Biology 100-100L, 101-101L or 201A, and Geological Sciences 536.
Principles of paleontology, including ecology and evolution. Tools of paleontology, including biomechanics, shape analysis, phylogeny, population analysis, study of biogeographic, temporal, and environmental distribution. Focus on using biology to solve geologic problems and vice versa.

GEOL 540. Marine Geology (3)
Prerequisites: Geological Sciences 205, and either Geological Sciences 324, 502, 514, or 537.
Plate tectonic origin and history of the ocean basins. Formation and distribution of sediments in response to biologic, chemical, and geologic processes.

GEOL 545. Descriptive Physical Oceanography (3)
Prerequisites: Mathematics 121 and 122, or 150; Physics 180A or 195.
Sea surface, temperature and density, surface current, deep circulation, water mass formation, characteristics of the ocean basins, the marine life, ocean machines and distributions. Laboratory experience in field trips, observation of physical properties of sea water, sea ice, air-sea relationships, effects of light and sound, distribution of temperature, salinity, density, surface current, deep circulation, water mass formation, instruments and methods of study.

GEOL 550. Engineering Geology (3)
Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 306.
Relationships between geologic processes and works of humans. Topics include rock and soil mechanics, ground water flow, slope stability, seismicity, land subsidence, and evaluation of geologic materials with respect to dam sites, tunnel alignments, and building foundations.

GEOL 551. Hydrogeology (3)
Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 306 and Mathematics 150.
Theory of ground water flow. Exploration for and development of the ground water resource. Aquifer tests, water quality, and water resource management. Occurrence of water in alluvial, sedimentary, volcanic, plutonic, and metamorphic terrains.

GEOL 560. Earthquake Seismology (3)
Two lectures and three hours of laboratory.
Prerequisites: Mathematics 252, Physics 197. Recommended: Mathematics 342A.
Theory of seismic wave excitation, propagation, and recording. Methods of seismogram interpretation and analysis. Applications to tectonics and earthquake hazard analysis.

GEOL 580. Seismic Interpretation and 3D Visualization (3)
Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 306.
Computer-based seismic interpretation, mapping, and modeling in both 2D and 3D. Overview of basic seismic processing. Emphasis on industrial applications, both petroleum and shallow geotechnical. (Formerly numbered Geological Sciences 647.)

GEOL 596. Advanced Topics in Geology (1-4)
Prerequisites: Consent of instructor.
Advanced special topics in the geological sciences. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.
GERMN 301. Grammar and Composition (3) [GE]
Prerequisites: German 202 and 205B. Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors. Proof of completion of prerequisites required: Copy of transcript.

Grammar and stylistics; intensive writing practice; reports based on outside reading. Not open to students who hold a degree from a secondary or post-secondary school in which the primary language of instruction is German.

GERMN 304. Phonetics of Spoken German (3)
Three lectures and one hour of laboratory.
Prerequisites: German 202 and 205B.

Sounds and intonation of German.

GERMN 320. German Film (3) [GE]
Two lectures and two hours of activity.
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Masterpieces of German film. Emphasis on social, political, and cultural changes in modern Germany. Taught in English.

GERMN 340. German Linguistics (3)
Prerequisites: German 301.

German linguistics with focus on varieties of German language to include: history of German, phonetics, phonology, syntax, morphology, semantics, pragmatics, applied linguistics and sociolinguistics.

GERMN 400. German Studies Through the Media (3)
Prerequisites: German 300 or 301.

Society and institutions of German-speaking regions through spoken and written texts from the media. Emphasis on topics of importance for business, communications, and German area studies.

GERMN 410. German Studies I (3)
Prerequisites: German 202 and 205B.

Methods of German studies as applied to study of culture of German-speaking communities from Middle Ages to beginning of second empire, while building on advanced German language skills.

GERMN 411. German Studies II (3)
Prerequisites: German 202 and 205B.

Methods of German studies as applied to study of culture of German-speaking communities from second German empire through German reunification, while building on advanced language skills.

GERMN 430. German Civilization (3)
Prerequisites: German 202 and 205B.

Artistic, intellectual, and cultural movements of the German-speaking regions, while building on advanced language skills. May be repeated with new title and content. Maximum credit six units.

GERMN 495. German Internship (3) Cr/NC
Prerequisites: Upper division standing in major and consent of instructor.

Practical work experience in a field related to German studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international experience requirement for major.

GERMN 496. Experimental Topics (1-4)
Prerequisites: German 300 (for literary topics) or 301 (for linguistics topics).

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

GERMN 499. Special Study (1-3)
Prerequisites: Fifteen upper division units in the major with an average of B (3.0) or better and consent of instructor. Proof of completion of prerequisites required: Copy of transcript.

Individual study. Maximum credit six units.

GERMN 575. Seminar in German Studies (3)
Prerequisites: Two upper division German courses.

Directed research on topics in German studies. See Class Schedule for specific content. May be repeated with new title and content. Maximum credit six units.

GERMN 596. Topics in German Studies (3)
Prerequisites: German 300 and 301. Proof of completion of prerequisite required: Copy of transcript.

Topics in German language, literature, or linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Gerontology (GERO)

In the College of Health and Human Services

LOWER DIVISION COURSES

GERO 101. Introduction to Human Aging (3) [GE]
Overview of the field of gerontology, including demographic trends, basic theories, concepts and philosophic ideas, social policies, planning issues, and services available to meet the needs and problems of the aged.

GERO 250. Intergenerational Issues and the Elderly (3)
Controversial issues surrounding interpersonal relations between the aged and other age groups.

GERO 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

GERO 350. Social Policy and Aging (3)
Prerequisites: Gerontology 101.


GERO 360. Diversity and Aging (3) [GE]
Prerequisites: Gerontology 101 or completion of the General Education requirement in Foundations II.B, Social and Behavioral Sciences required for nonmajors.

Attitudes and cultural values related to aging members of ethnic and minority groups. Influences of class, gender, sexual orientation, economic resources and health on aging process.

GERO 370. Images of Aging in Contemporary Society (3) [GE]
Prerequisites: Gerontology 101 or completion of the General Education requirement in Foundations II.B, Social and Behavioral Sciences required for nonmajors.

Impact of current cultural attitudes and values on images of older persons. Influence of media and advertising in creating views and perceptions of aging. Major myths and stereotypes.
GERO 400A-400B. Practicum in Gerontology (3-3) Cr/NC
Twelve hours of laboratory.
Prerequisites: Gerontology 350, 360, 370.
Integration of theoretical background and practical experience in providing services to elderly. Fieldwork and observation in settings providing services to the elderly. Direct experience in aging projects relevant to their field of interest.

GERO 402. Aging Network (3)
Prerequisites: Three units in gerontology.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

GERO 520. Analysis of Programs for the Aging (3)
Prerequisites: One upper division course in gerontology.
Major programs in aging that support daily functioning of elderly. Effectiveness of programs in serving today’s elderly with attention to ethnic and cross-cultural variations.

GERO 522. International Issues on Aging (3)
Prerequisites: Three units in gerontology.
Socio-economic implications of rapidly growing number and proportion of older people around the world. Comparative study of aging populations in different countries, analysis and evaluation of related policies and programs.

GERO 596. Advanced Special Topics in Gerontology (1-4)
Advanced selected topics in gerontology. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree.

Graduate Courses
Refer to the Graduate Bulletin.

Health and Human Services (HHS)
Offered by the College of Health and Human Services

LOWER DIVISION COURSES

HHS 280. Health Education for Teachers (1)
Prerequisites: For multiple or single subject teacher candidates. Topics designated in health framework for California; infusing health topics in the K-12 general curriculum.

HHS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

Health and Human Services / Hebrew

In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES

All lower division courses in Hebrew are taught in Hebrew. No credit will be given for Hebrew 101, 102, 201 out of sequence.

HEBRW 100. Hebrew Alphabet (1)
(Selected sections offered as distance education)
Study of Hebrew alphabet; practice with reading and comprehending whole texts (without vowels), as well as pronouncing. Intended for students of Hebrew 101 who have not previously studied the alphabet. May also be taken without Hebrew 101. Does not satisfy language requirement.

HEBRW 101. Elementary Hebrew I (3) [GE]
Three lectures and one hour of laboratory. Beginning reading, writing, and conversational skills. Essentials of grammar. Not open to students who have completed three years of high school Hebrew unless the third course was completed five or more years ago.

HEBRW 102. Elementary Hebrew II (3) [GE]
Three lectures and one hour of laboratory. Prerequisites: Hebrew 101. Continuation of Hebrew 101. Not open to students who have completed four years of high school Hebrew unless the fourth course was completed five or more years ago.

HEBRW 200. Reading Classical Hebrew (1)

HEBRW 201. Intermediate Hebrew 4 (GE)
Four lectures and one hour of laboratory. Prerequisites: Hebrew 102 and 200. Continuation of Hebrew 102. Applications of grammar and reading skills. Additional practice in conversation.

HEBRW 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Selected for Undergraduates)

All upper division courses in Hebrew are taught in Hebrew unless otherwise stated.

HEBRW 330. Hebrew Discourse and Literature (3) [GE]
Prerequisites: Hebrew 201 and completion of the General Education requirement in Foundations II.C., Humanities. Varieties of Hebrew discourse, including different types of modern discourse, and selected highlights of Hebrew literature throughout the ages, to be read in Hebrew. Use of variety of language modalities, including film, drama, translation, and student reports.

HEBRW 471. Kabbalah as a Symbolic System (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C. Humanities. Concepts of kabbalah in English to include Tree of life and sphi-rot; masculine and feminine aspects, sex and sexuality; alef-bet of Creation and “meanings” of Hebrew letters. Taught in English. Not open to students with credit in Hebrew 470.

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History

In the College of Arts and Letters

LOWER DIVISION COURSES

HIST 100. World History (3) [GE]
Growth of civilizations and interrelationships of peoples of Europe, Asia, Africa, and the Americas to 1500.

HIST 101. World History (3) [GE]
Modern history from a global perspective, 1500 to present.

HIST 105. Western Civilization to the Sixteenth Century (3) [GE]
Development of European cultures, thought, and institutions from ancient times to the sixteenth century. Not open to students with credit in History 305A.

HIST 106. Western Civilization Since the Sixteenth Century (3) [GE]
Development of European cultures, thought, and institutions from sixteenth century to present. Not open to students with credit in History 305B.

HIST 109. American History to Reconstruction (3) [AI]
United States history from pre-colonial societies to Reconstruction. Contact of cultures, patterns of settlement, contests over racial, ethnic, religious, class, gender, regional, and national identities and institutions. Satisfies the American Institutions requirement in American history and United States Constitution.

HIST 110. American History Since the Civil War (3) [AI]
United States history since the Civil War. Development of U.S. economy, urbanization, social and cultural change, emergence of U.S. as a world power, struggles over American identities and institutions. Satisfies the American Institutions requirement in American history and California government.

HIST 115. Comparative History of the Americas (3) [AI]
Western hemisphere from ancient times to early national period, with focus on interactions among European, American Indian, and African cultures, institutions, and traditions. Ancient American societies, European colonial systems, creation of new nations. Satisfies the American Institutions requirement in American history and United States Constitution.

HIST 116. Comparative History of the Americas (3) [AI]
Nations and cultures of the Western hemisphere since early national period, with focus on interactions among European, American Indian, and African cultures, institutions, and traditions. Satisfies the American Institutions requirement in American history and California government.

HIST 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

HIST 299. Special Study (3)
Prerequisites: Consent of department chair and instructor. Individual study.

UPPER DIVISION COURSES

(Intended for Undergraduates)

HIST 400W. Historian's Craft (3)
Prerequisites: Twelve units in history including History 100, 101, and six units selected from History 105, 106, 109, 110, 115, or 116. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Analysis and practice of ways historians preserve, research, and interpret the past for public audiences. Topics include historic preservation projects, parks, museums, archives, and living history programs. Includes a major analytical essay or public history project.

HIST 451. Historians and the Public (3)
Prerequisites: History 400W with a grade of C (2.0) or better and a minimum of 15 upper division units in history. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

HIST 452. Advanced Internship in Applied History (3)
Prerequisites: History 400W with a Grade of C (2.0) or better and a minimum of 15 upper division units in history.

Supervised field placement in applied history: campus and community archives, museums, government, and other historical agencies. Emphasis on critical analysis, writing, and historiography.

HIST 490. Senior Honors Thesis (3)
Prerequisites: History 400W; open to history majors with senior standing and permission of the honors thesis adviser.

Directed research on a historical topic chosen in consultation with the honors thesis adviser, and completion of a senior honors thesis. Required of students wishing to graduate with a certificate of recognition in history.

HIST 499. Special Study (1-3)
Prerequisites: Consent of department chair and instructor. Individual study. Maximum credit six units.

Field (a). Thematic, Comparative, and Interdisciplinary History

UPPER DIVISION COURSES

(Intended for Undergraduates)

HIST 402. History of Childhood (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Comparative perspective on the history of infancy and early childhood; childrearing theories and practices; adolescence; education; play; work in slavery, servitude, apprenticeship, and families; immigration and migration; domestic violence and family law; and construction of gender and identity.
HIST 406. History of Sexuality (3) [GE]
Prerequisites: Upper division standing and completion of General Education requirements in Foundations II.C. Humanities required for nonmajors.
Comparative and historical approach to changing conceptions of the body, regulation of sexual practices, and emergence of sexual identities. Historical perspectives on body parts, sexual practices, and sexual celebrities invested with social and political significance.

HIST 422. Asian American Experiences (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Experiences of Asian/Pacific Islander Americans to include immigration, colonization, imperialism, exclusion, citizenship, labor, family, community, gender, popular culture, refugees, multi-racial tensions, globalization, and resistance.

HIST 435. History Through Film (3)
Critical analysis of selected historical problems, eras, and events, using film as the principal historical document. See Class Schedule for specific content. Maximum credit six units.

HIST 436. Modern Jewish History in Feature Films (3) [GE]
Two lectures and two hours of activity.
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Representations of twentieth-century Jewish history in feature films. Topics include persecutions of Jews in Czarist Russia and Nazi occupied Europe, social mobility in the United States and national sovereignty in Israel.

HIST 440. The Holocaust and Western Civilization (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
German campaign to eliminate Jews during World War II. Anti-Semitic background, both Christian and racial; rise of Adolf Hitler and implementation of “the final solution”; responses by Jews and non-Jews in the Western world.

HIST 441. Environmental Problems in Historical Perspective (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
A comparative study of the role of religious beliefs, social values, economic practices, and political systems in shaping past attitudes, policies, and behavior toward the environment. International in scope.

HIST 442. People From Our Past (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Biographical approach to history through lives of prominent and ordinary individuals. Topics may include war, community, dissent, individualism, leadership, politics, culture, religion, gender, race, and ethnic identities. Specific content may vary. (Formerly numbered History 442A.)

HIST 470. Topics in World History (3)
Prerequisites: Upper division standing.
Major historical problems, themes, or topics from global chronological and geographical perspectives of world history to include frontiers, food and famine, violence and warfare, science, religion and magic, the Atlantic world, medieval era. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 486. World War II (3)
Causes of World War II, its course, and its legacy for today's world.

HIST 488. Modern Jewish History (3) [GE]
Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Social, religious, and intellectual life of European Jewry from Middle Ages to present; political struggle for emancipation; anti-Semitism, the Holocaust, and establishment of state of Israel.

HIST 495. Internship in Applied History (3)
Prerequisites: Nine units in history. History 451 for some students (see instructor).
Supervised field placement of students in campus and community archives, historical museums, and other historical agencies. Practical experiences related to studies within history curriculum.

HIST 496. Issues in History (1-4)
Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units with change of content. Limit of nine units of any combination of 496, 498, 596 courses applicable to a bachelor's degree. Refer to Class Schedule for specific content.
A. Thematic, Comparative, and Interdisciplinary History
B. The Ancient Through Early Modern World
C. The Modern World

HIST 499. Special Study (1-3)
Prerequisites: Consent of department chair and instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

HIST 500. Topics in Ancient History (3)
Prerequisites: Upper division standing.
Variable topics in ancient history throughout the world may include: Women in Greek and Roman societies, magic in the Greco-Roman World, Silk Roads, and pre-contact Mesoamerica. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 516. Imperialism and the Colonial Experience (3)
Prerequisites: Upper division standing.
Imperialism and colonialism as these transformed both colonizing and colonized peoples, e.g., modernization, racism, Orientalism, multi-ethnic, Great Power competition, anti-colonial resistance, and nationalism.

HIST 527. The Holocaust in Feature Films (3)
(Same course as European Studies 527)
Two lectures and two hours of activity.
Prerequisites: Upper division or graduate standing.
Depiction of the Nazi policy of destroying European Jewry and its impact on the perpetrators, bystanders, victims, and the post-war world in feature films.

HIST 548. Race and Ethnicity in United States History (3)
Prerequisites: Upper division standing.
Race and ethnicity in America from colonial period through twentieth century to include historical construction of identity; colonization, slavery, state formation; labor, immigration, politics of whiteness; applicability of black/white binary of a multi-ethnic society.

HIST 580. Topics in the History of War and Violence (3)
Prerequisites: Upper division standing.
History of war and violence may include: Violence in Africa, modern genocide, trauma and modern East Asia, social suffering in historical perspective. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 581. Topics in Urban History (3)
Prerequisites: Upper division standing.
Variable topics in urban history may include: The city in United States history, Chinatowns, suburbs and suburbanization, urban politics. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.
HIST 582. Topics in Social and Cultural History (3)
Prerequisites: Upper division standing.
Variable topics in social and cultural history may include: Ritual in early modern Europe, radicals ad revolutionaries, intellectuals and society, families in former times, and American popular culture. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 583. Topics in History of Gender and Sexuality (3)
Prerequisites: Upper division standing.
Variable topics in history of gender and sexuality may include: Gay and Lesbian history, Asian American gender and sexuality, genders in Latin America. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 584. Topics in Environmental History (3)
Prerequisites: Upper division standing.
Variable topics in environmental history may include: Press, politics, environment, world environmental history, water and society. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 596. Selected Studies in History (1-4)
Prerequisites: Consent of department chair and instructor.
Topics in various fields of history such as biography, war, science, technology, urbanization, minority groups, immigration, and capitalism. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units.

HIST 597. Special Study (1-3)
Prerequisites: Completion of General Education requirement in Foundations II.C., Humanities required for nonmajors.
Individual study. Maximum credit six units.

HIST 598. Special Study (1-3)
Prerequisites: Consent of department chair and instructor.
Individual study. Maximum credit six units.

HIST 411. World History for Teachers (3)
Prerequisites: Upper division standing. Writing Proficiency Assessment with a score of 8 or above, or grade of C or better in Rhetoric and Writing Studies 280 or 281, and at least three units selected from History 100, 101, 105, 106, 115, or 116.
Topics in world history from paleolithic times to sixteenth century emphasizing comparative analysis, interrelations among societies, and large-scale patterns of change. Various approaches to conceptualizing and teaching world history. Intended primarily for students in teacher preparation programs.

HIST 413. United States History for Teachers for Liberal Studies Majors (3)
Prerequisites: Upper division standing and Writing Proficiency Assessment with a score of 8 or above or Rhetoric and Writing Studies 280 or 281. Limited to liberal studies majors.
United States history from pre-colonial period to World War I, incorporating California with emphasis on historiography and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and United States Constitution. Required of liberal studies majors. Not open to students with credit in History 409.

HIST 415. Pre-Contact and Colonial Latin America (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Indigenous and colonial history of Latin America, pre-contact through early national period.

HIST 420. Asia's Dynamic Traditions (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Emergence and continuing vitality of historic traditions in India, China, and Japan. Topical, comparative survey emphasizing Confucian, Buddhist, and Hindu ideas and the interaction with institutions of family and village.

HIST 473. Middle Eastern History from the Advent of Islam to 1500 (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Middle Eastern history, 600 C.E. to 1500 C.E.; spread of Islam through rise of Ottoman Empire.

HIST 496. Issues in History (1-4)
Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units with change of content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Refer to Class Schedule for specific content.
A. Thematic, Comparative, and Interdisciplinary History
B. The Ancient Through Early Modern World
C. The Modern World

HIST 499. Special Study (1-3)
Prerequisites: Consent of department chair and instructor.
Individual study. Maximum credit six units.

HIST 501. History of Ancient Near Eastern Civilizations (3)
Major civilizations of Near East from the origin of civilization to Roman Conquest, including Egyptians, Babylonians, Hebrews, and Persians. Social, political, and religious problems.

HIST 502. Ancient Greece (3)
Greek history from prehistoric period through Age of Alexander the Great. Emphasis on political, social, cultural and institutional developments, and historiography. Secondary attention to military, economic, and religious topics.

HIST 503. Ancient Rome (3)
Roman history from origins of Rome to fall of the Empire. Emphasis on political, social, cultural and institutional developments, and historiography. Secondary attention to military, economic, and religious topics.

HIST 504. The Early Middle Ages (3)
Europe and Mediterranean 300-1100 C.E. through various approaches: political, economic, social, and cultural. Collapse of Roman Empire, transformation of classical culture and regions that claimed its heritage: Christian kingdoms of western Europe, Byzantine, and Muslim Arab empires. (Formerly numbered History 504.)

HIST 505. The Later Middle Ages (3)
Europe and the Mediterranean 1100-1450 C.E. through various approaches: political, economic, social, and cultural. Development of Christian kingdoms of western Europe and relationship to Byzantine empire, Muslim Arab and Turkish states. (Formerly numbered History 505.)

HIST 507. Early Modern Europe (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Early modern Europe from Renaissance to French Revolution, Social, cultural, economic, political, and intellectual trends, development of nation-states, and sources of continental conflict.

HIST 407. Early Modern Europe (3) [GE]
Early modern Europe from Renaissance to French Revolution, Social, cultural, economic, political, and intellectual trends, development of nation-states, and sources of continental conflict.

HIST 409. United States History for Teachers (3) [AI]
Prerequisites: Upper division standing and Writing Proficiency Assessment with a score of 8 or above or grade of C or better in Rhetoric and Writing Studies 280 or 281.
United States history from pre-colonial period through Reconstruction with emphasis on historiography, bibliography, and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and United States constitution. Required of social science single subject majors. Not open to students with credit in History 310A or 413 or liberal studies majors.
### HIST 506. The Renaissance (3)
- Intellectual, artistic, social, and economic transformation in Europe from fourteenth to seventeenth centuries.

### HIST 507. The Reformation (3)
- Continental Europe, 1500-1648. Split of Christendom; political and intellectual dissent; social fabric of family life; relationship between gender, class, and power; cultural stratification of European society.

### HIST 513. Early Scandinavia (3)
- The formation and development of the Scandinavian kingdoms from the Viking Age to the end of the Napoleonic Wars. (Formerly numbered History 513A.)

### HIST 528. Social History of Early Modern Europe (3)
- Historical survey of European society emphasizing changes in the family, health, diet, standard of living, urbanism, crime, migration, and literacy, from 1350 to beginning of Industrial Revolution.

### HIST 532. Topics in Early American History (3)
- Prerequisites: Upper division and three units in history at the college level.
  - Variable topics in history of colonial America and the early republic. Possible topics include: Women and the Family; Race, Class and Labor; American Revolution; Religion and Politics; Immigrants' Experiences. See Class Schedule for topic. May be repeated with new content. Maximum credit six units.

### HIST 550. Colonial Mexico (3)
- Prerequisites: History 115, 116, 415, or 416.
  - Social history of Mexico from pre-contact through early national period using primary and secondary sources. Processes of social and cultural negotiation involving gender, religion, environment, medicine, and urban experience.

### HIST 563. Southeast Asia to 1800 (3)
- Cultural traditions of Southeast Asian people. Examines nature of the state, interstate relations, evolution of indigenous institutions, and influences of India, China, Islam, and the West to the end of the eighteenth century.

### HIST 566. Chinese Civilization: The Great Traditions (3)
- China's institutional and cultural development from ancient to premodern times. Emphasis on traditional philosophy, religions, literature, and the arts.

#### Field (c). The Modern World

### HIST 408. Modern Europe (3) [GE]
- Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Modern Europe from French Revolution to present. Social, cultural, economic, political, and intellectual trends, development of nation-states, and sources of continental conflict.

### HIST 410. United States History for Teachers (3) [AI]
- Prerequisites: Upper division standing and Writing Proficiency Assessment with a score of 8 or above or grade of C or better in Rhetoric and Writing Studies 280 or 281.
  - United States history since Civil War with emphasis on historiography, bibliography, and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and California government. Not open to students with credit in History 310B.

### HIST 412. Modern World History for Teachers (3)
- Prerequisites: Upper division standing, Writing Proficiency Assessment with a score of 8 or above, or grade of C or better in Rhetoric and Writing Studies 280 or 281, and at least three units selected from History 100, 101, 105, 106, 115, 116.
  - Topics in world history from the beginning of the sixteenth century to the present emphasizing world-scale patterns of change and cross-cultural comparisons. Various approaches to conceptualizing and teaching world history. Intended primarily for students preparing to teach history in secondary schools.

### HIST 416. Modern Latin America (3) [GE]
- Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. History of Latin America, early national period to present.

### HIST 418. History of Modern Britain (3)
- Prerequisites: Upper division standing. History of Britain from seventeenth century to contemporary age. Emphasis on political institutions, religion, society, economy, the arts.

### HIST 421. Asia's Emerging Nations (3) [GE]
- Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Impact of historic changes which have contributed to the rise of modern Japan, India, and China. Topical, comparative approach emphasizing ways Asian societies have responded to challenges of imperialism, nationalism, revolution, war, and modernization.

### HIST 423. History of the Philippines (3)
- Prerequisites: From earliest times to present, context of world history and from multiple perspectives to include colonial and post-colonial elites, women, peasants, uplanders, Muslims, Filipino-Chinese, and the Filipino diaspora.

### HIST 445. California History (3)
- California history from pre-colonial societies to present. Emphasis on early colonial societies, economy, environment, politics, race, gender, and California's place in popular culture. Not open to students with credit in History 444 and 445 if both courses were taken prior to fall 2004.

### HIST 474. The Middle East Since 1500 (3) [GE]
- Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Middle Eastern history since 1500 C.E.; Islamic empires, European colonialism, nationalism, and modernization.

### HIST 496. Issues in History (1-4)
- Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units with change of content. Limit of nine units of any combination of 296, 496, 596; courses applicable to a bachelor's degree. Refer to Class Schedule for specific content.
  - A. Thematic, Comparative, and Interdisciplinary History
  - B. The Ancient Through Early Modern World
  - C. The Modern World

### HIST 499. Special Study (1-3)
- Prerequisites: Consent of department chair and instructor. Individual study. Maximum credit six units.

#### UPPERT DIVISION COURSES

##### (Also Acceptable for Advanced Degrees)

### HIST 509. British Century: Waterloo to World War I (3)
- Prerequisites: Upper division standing. History of England, 1815-1914, to include industrial supremacy; struggles over urban problems, reform, democratization, labor organization, national self-image; interplay of liberalism and collectivism; sources of social stability and instability; women's rights; jingoism; coming of World War I.

### HIST 512A. The Great War: A Turning Point in European History (3)
- Forces and events that shaped Europe in period prior to and during World War I, 1890-1919.

### HIST 512B. The Age of Dictators and Contemporary Europe (3)
- Europe in the age of dictatorship, world war, decline, and recovery.

### HIST 515. Globalization in Historical Perspective: 1500 to the Present (3)
- Prerequisites: Upper division standing. Global movements of people, goods, and capital since 1500. Historical trends in labor and productivity, relationship of policy to economic growth, convergence and divergence, and impact of economic globalization on human welfare and the environment.
HIST 517. Modern Germany (3)
Political, social, and economic development of Germany from 1848 to present.

HIST 518. Russia and the Soviet Union (3)
Political, social, and economic development of Russia in Europe and Asia. (Formerly numbered History 518B.)

HIST 533A. The Jacksonian Era (3)
Territorial expansion, democratic politics, revivalism, and the slavery controversy.

HIST 532B. Civil War and Reconstruction (3)
The Civil War and Reconstruction, emphasizing political affairs and the role of Lincoln.

HIST 535. The Age of Roosevelt (3)
The United States in Depression, War, and Cold War. (Formerly numbered History 535B.)

HIST 536. The United States Since World War II (3)
Major foreign and domestic issues confronting the United States, and the government policies and popular movements generated in response.

HIST 539. Topics in the History of the American West (3)
Prerequisites: Upper division standing and three units of history at the college level.
Selected topics in history of American West such as Westward movement; Southwest borderlands; gender and the frontier; new western history. May be repeated with new content. Maximum credit six units.

HIST 540. Environmental History of the United States (3)
The relationship of Americans to their environment from colonial times to the present with emphasis on how attitudes and values have affected personal behavior and public policy toward the land.

HIST 543. Vietnam Wars (3)
Prerequisites: Upper division standing and six units in history. US involvement in Vietnam. History of Vietnamese state, French colonial rule, Japanese occupation, origins of Vietnamese revolution and US intervention, conduct of US conventional and covert military operations, role of women, and legacy of the war.

HIST 544A. Early American Foreign Relations (3)
Development of American foreign relations from Colonial Period to the Spanish-American-Filipino War.

HIST 544B. Modern American Foreign Relations (3)
Development of American foreign relations since 1900.

HIST 545. Constitutional History of the United States (3)
Development of American constitutional ideals and institutions from colonial period to the present. Examines historical context of significant legal issues and constitutional cases.

HIST 551. Modern Mexico (3)
Prerequisites: History 115, 116, 415, or 416.
Social history of Mexico since early national period using primary and secondary sources. Processes of social and cultural negotiation involving gender, religion, environment, medicine, and urban experience.

HIST 552. Brazil (3)
Survey of history of Brazil from Portuguese backgrounds to present. Brazil as a tropical society. Recommended for students minoring in Portuguese.

HIST 555. Latin America in World Affairs (3)
History of Latin America’s political and economic relations with Europe, the Soviet Union, the United States, and the Third World.

HIST 564. Southeast Asia in the Modern World (3)
Southeast Asian history since 1800 with attention to colonialism, sociocultural change, Chinese diaspora, nationalism and independence, and economic development. Considers transnational comparisons among Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

HIST 567. China in Revolution (3)
China’s history during the tumultuous nineteenth and twentieth centuries. China’s forced encounter with Western imperialism, rural, and urban social movements. Impact of Mao’s Revolution on everyday life in China, successes, limitations of China’s recent reform policies.

HIST 570. Japan in the Modern World (3)
Japan’s emergence as a modern state since the nineteenth century, and ongoing struggle to redefine Japanese identity. Examines Japan’s engagement with modernity as seen through changes in political discourse, gender relations, international relations, intellectual trends, and economic development.

HIST 574. Arab-Israeli Relations, Past and Present (3)
Arab-Israeli conflict and diplomacy over Palestine from perspectives of Zionism, Arab nationalism, and Great Power relations from nineteenth century to present.

HIST 585. Topics in the History of the Sixties (3)
Prerequisites: Upper division standing.
Variable topics in the history of the 1960s may include: America in the 1960s, Africa in the 1960s, politics and protests in 1960s, Europe in the 1960s. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.
Honor 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Limit of six units of any combination of 299, 499 courses applicable to a bachelor's degree.

Hospitality and Tourism Management (HTM)
In the College of Professional Studies and Fine Arts

Lower Division Courses

HTM 201. Introduction to Hospitality and Tourism Management (3)
Hospitality and tourism industry with focus on basic management theories and principles as they apply to hospitality and tourism; basic structure, organization, and management of industry components and the services/products they deliver.

HTM 223. Hospitality Managerial Accounting and Controls (3)
Prerequisites: Hospitality and Tourism Management 201 and Accountancy 201.
Utilization of accounting information in decision-making, planning, directing, and controlling in hospitality and tourism management. Integrates areas of managerial accounting and controls with applications in hospitality industry. Not open to students with credit in Accountancy 202.

HTM 224. Hospitality Accounting (1)
Prerequisite: Consent of instructor.
Hospitality accounting for students transferring into hospitality and tourism management program from community college.

HTM 250. Hospitality Law (3)
Prerequisite: Hospitality and Tourism Management 201.
Hospitality law, legal, and policy areas arranged according to specific entities hospitality managers have primary relationships: guests, employees, third parties, and government. Not open to students with credit in Finance 240.

HTM 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

Upper Division Courses (intended for undergraduates)

HTM 301. Service Leadership Development (2)
One lecture and two hours of activity.
Prerequisites: Hospitality and Tourism Management 201 and upper division major in hospitality and tourism management.
Service leadership theory and development in hospitality and tourism industry. Application of business models and industry metrics with focus on individual assessment and development of leadership competencies.

HTM 320. Hotel Management (3)
Two lectures and two hours of activity.
Prerequisite: Hospitality and Tourism Management 301.
Hotel management and operations to include room reservations, housekeeping, front desk management, concierge, sanitation, safety, security, and bellstand. Revenue management, forecasting, measuring performance, transient versus group displacement, service quality, pricing and inventory management, ethics. (Formerly numbered Hospitality and Tourism Management 427.)

HTM 321. Hotel and Travel Marketing (3)
Prerequisite: Marketing 370.
Marketing for hotel and travel industry, including all aspects of marketing discipline from market research and brand positioning to customer relationship marketing.

HTM 322. Rooms Division Management (1)
Prerequisite: Hospitality and Tourism Management 320.
Hotel front desk, reservations, housekeeping, and other room-related areas of responsibility. Systematic approach to management of hotel housekeeping operations.

HTM 330. Event and Meeting Industry (3)
Prerequisite: Upper division standing in hospitality and tourism management.
History and motivation behind meetings, elements of events, event operations and project management, types of meetings and events and industry and economic models.

HTM 333. Weddings and Special Events (1)
Prerequisite: Hospitality and Tourism Management 330.
Cultural, social, economic, and other factors affecting planning and execution of weddings and other special events.

HTM 334. Trade Shows and Expositions (1)
Prerequisite: Hospitality and Tourism Management 330.
Key aspects of trade show industry to include expositions and marketing strategies.

HTM 335. Convention and Visitor Bureaus (1)
Prerequisite: Hospitality and Tourism Management 330.
Scope and functions of convention and visitor bureaus; marketing and sales strategies for attracting segments with specific needs; techniques for meeting segment requirements.

HTM 336. Site Selection and Negotiation (1)
Prerequisite: Hospitality and Tourism Management 330.
Site selection and negotiation for events and meetings.

HTM 340. Restaurant Management (3)
Two lectures and three hours of laboratory.
Prerequisite: Hospitality and Tourism Management 301.
Restaurant and food service principles to operations of casual and fine dining restaurants with emphasis on cost/volume/profit relationships, forecasting demand and market share, market niche/positioning, sanitation and safety, scheduling, quality management, customer service, technology, and ambiance/environment. (Formerly numbered Hospitality and Tourism Management 421.)

HTM 342. Restaurant Marketing and Menu Management (3)
Prerequisites: Hospitality and Tourism Management 340 and Marketing 370.
Restaurant marketing and menu design, menu research and development, and other marketing-related management functions.

HTM 370. Tribal Gaming: Cultural and Political Context (3)
(Same course as American Indian Studies 370)
Prerequisite: Hospitality and Tourism Management 201 or American Indian Studies 110.
Social and political context of American Indian tribal gaming, political relationships between federal and tribal governments, contemporary examples of tribal gaming, sociocultural and economic forces leading to gaming as strategy for economic development, and responses by non-Indian communities to tribal gaming.

HTM 371. Tribal Gaming: Casino Operations (3)
Prerequisite: Hospitality and Tourism Management 201.
Functional units of a casino and how they work together to create a viable business model. Economic and management issues in gaming industry, with emphasis on tribal applications.

HTM 372. Tribal Gaming: Legal and Regulatory Issues (1)
Prerequisites: Hospitality and Tourism Management 201 and 371.
Legal and regulatory structure of tribal gaming including Federal Indian Gaming Regulatory Act and California compacting process.

HTM 373. Tribal Gaming: Marketing and Public Relations (2)
Prerequisites: Hospitality and Tourism Management 371 and Marketing 370.
Key strategies, tactics, and techniques used by marketing and public relations professionals to fuel demand for tribal casino gaming. Customer relationship marketing (CRM), radio/TV/ print advertising, promotions, and guest incentives.

HTM 380. Hospitality Leadership Theory (1)
Prerequisite: Hospitality and Tourism Management 301.
Key components of leadership behavior and practice.
HTM 398. Internship I in Hospitality and Tourism (3) Cr/NC
Prerequisite: Hospitality and Tourism Management 301 and consent of internship coordinator. A minimum of 400 hours of prior documented hospitality work experience.
Entry level experience in a hotel, restaurant, or related position at a university approved site. Minimum 300 hours of quality work at site required during semester and completion of project. Note: Only students who have been approved for placement by internship coordinator may enroll in this course.

HTM 425. Property Management in Hospitality and Tourism (3)
Prerequisites: Hospitality and Tourism Management 301. Development, planning, and maintenance of hospitality facilities. Real estate economics, income generation, lease and management contracts, building operations, project development sequencing, conceptual and space planning, financing, asset management, industry practices, renovation, and public relations.

HTM 428. Hotel Feasibility Analysis and Valuation (2)
Prerequisite: Hospitality and Tourism Management 320. Methods and practices for evaluating prospective new hotel properties and establishing economic value.

HTM 429. Hotel Asset Management (1)
Prerequisite: Hospitality and Tourism Management 320. Asset management planning; investing in global economy; management contracts and franchising; owner-management company relationship; benchmarking operating results, and financial analysis.

HTM 430. Specialty Event Management (2)
One lecture and two hours of activity. Prerequisite: Hospitality and Tourism Management 330. Special events planning and execution.

HTM 431. Convention Services for Hotels (2)
Prerequisite: Hospitality and Tourism Management 301. Planning, developing, and implementing hotel meeting and convention services.

HTM 433. Destination Management Services (2)
Prerequisite: Hospitality and Tourism Management 431. Destination management companies including incentive travel and marketing techniques, structure, governance, business, and services operations.

HTM 435. Sporting Events and Festival Management (3)
Prerequisites: Hospitality and Tourism Management 431. Organization and administration of attraction-based events focusing on scheduling, financing, budgeting and revenue distribution, logistics, planning techniques, marketing, contracts, and staging considerations.

HTM 444. Restaurant Multi-Unit Operations (3)
Prerequisite: Hospitality and Tourism Management 340. Multi-unit management of restaurants, examining structure and principles for providing superior technical and expressive service on a sustainable basis.

HTM 450. Venture and Entrepreneurial Management in Hospitality and Tourism (3)
Prerequisites: Hospitality and Tourism Management 301, Finance 323, Information and Decision Systems 302, Management 350, and Marketing 370. Initiating, expanding, purchasing, and consolidating hospitality and tourism businesses; examination of entrepreneurial approach including concepts, theories, techniques, and practices of managerial innovation/implementation; analysis of entrepreneurial skills.

HTM 453. Hospitality Sales and Marketing (2)
Prerequisites: Hospitality and Tourism Management 201, 300; Marketing 370. Sales functions and management skills required of hospitality companies. Tactics and techniques used to reach target audiences.

HTM 455. Hospitality Financial Management (3)
Prerequisite: Finance 323. Managerial insights and techniques for understanding, evaluating, and managing hospitality industry financial information and making sound decisions.

HTM 456. Hotel Revenue Management (2)
Prerequisite: Hospitality and Tourism Management 320. Revenue management in hotel industry including marketplace intelligence, forecasting, pricing, and revenue optimization techniques.

HTM 465. Hospitality Technology (1)
Prerequisite: Hospitality and Tourism Management 490. Operative characteristics of extant hospitality industry technology; techniques for evaluating investments in new technology solutions.

HTM 474. Tribal Gaming: Slot and Table Games Management (3)
Prerequisites: Hospitality and Tourism Management 201 and 371. Games of chance played in a casino, mathematics and technology involved, and management techniques required to support operations.

HTM 480. Leadership and Coaching in Hospitality (3)
Prerequisites: Hospitality and Tourism Management 301 and 380. Development of interpersonal communication, coaching, and training skills to maximize employee performance in a service setting.

HTM 490. Strategic Management in Hospitality and Tourism (3)
Prerequisite: Marketing 370. Problems and issues of strategic planning in hospitality and tourism businesses including methods, techniques, and models used to identify strategic issues and generate future-oriented action plans to implement change.

HTM 491. Leadership and Self Development in Hospitality (2)
Prerequisites: Hospitality and Tourism Management 301, 490, and upper division standing in hospitality and tourism management. Capstone leadership course. Advanced leadership topics and completion of student leadership portfolios.

HTM 496. Experimental Topics (1–4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

HTM 498. Internship II in Hospitality and Tourism (2) Cr/NC
Prerequisites: Hospitality and Tourism Management 398 and Management 350, 352. Food handler certification required for restaurant majors.
Experience in a hotel, restaurant, tribal casino, or tourism site in student’s chosen emphasis at a university approved site. Minimum of 300 hours of quality work at site required during semester in addition to completion of site project.

HTM 499. Special Study (1–3)
Prerequisites: Consent of special study adviser. Individual study. Maximum credit six units.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

HTM 596. Selected Topics in Hospitality and Tourism Management (1–3)
Prerequisite: Upper division status or graduate standing. Selected topics in hospitality, tourism, and/or tribal gaming management. May be repeated with new content and approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.
HUM 101. Introduction to Humanities (3) [GE]  
Preliminary investigation: how values and ideals are expressed in literary, artistic, and intellectual achievements of individuals and civilizations throughout the world.

HUM 140. Mythology (3) [GE]  
Comparative themes and figures from various mythologies of the world. Interpretation of myths; their influence on art, culture, and history.

HUM 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES  
(Reserved for Undergraduates)

HUM 310. French Humanities (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. France’s literary, artistic, and intellectual achievements. Great cultural traditions and influences.

HUM 320. German Humanities (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Germany’s literary, artistic, and intellectual achievements. Great cultural traditions and influences.

HUM 330. Russian Humanities (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Russia’s literary, artistic, and intellectual achievements. Great cultural traditions and influences.

HUM 340. Italian Humanities (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Italy’s literary, artistic, and intellectual achievements. Great cultural traditions and influences.

HUM 350. Humanities in America (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. America’s literary, artistic, and intellectual achievements. Great cultural traditions and influences.

HUM 401. Age of Faith (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Literary, artistic, and intellectual achievements of European Middle Ages. Cultural movements and influences.

HUM 402. Renaissance (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Literary, artistic, and intellectual achievements of European Renaissance. Great cultural traditions and influences.

HUM 403. Age of Enlightenment (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Literary, artistic, and intellectual achievements of European Enlightenment. Great cultural traditions and influences.

HUM 404. Romanticism to Postmodernism (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Literary, artistic, and intellectual achievements of nineteenth- and twentieth-century Europe. Great cultural traditions and influences.

HUM 460. African Civilizations (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Interdisciplinary survey of sub-Saharan African civilizations, emphasizing religion, literature, and the arts from ancient times to the present.

HUM 490. Senior Seminar in Classics and Humanities (3)  
Prerequisites: Classics or humanities major with more than 90 units; others with consent of department chair. Senior capstone seminar in major. Discussion and research on topic in classics and humanities. Formal research paper.

HUM 496. Topics in Humanities (3)  
Interdisciplinary topics in literature and the arts. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)

HUM 596. Topics in Humanities (1-3)  
Prerequisites: Upper division standing and consent of instructor. Interdisciplinary topics in literature and the arts. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. No more than six units of 596 may be applied to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

HUM 599. Special Study (1-3)  
Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor. Directed individual study. Maximum credit six units.

Information and Decision Systems  
(IDS)  
In the College of Business Administration

LOWER DIVISION COURSES

IDS 180. Principles of Information Systems (3)  
Applications of computerized systems in business organizations. Basic concepts of computer organization, data processing systems, decision support systems and systems analysis. Solving business problems through use of spreadsheet software.

IDS 290. Business Communication (3)  
Prerequisites: Rhetoric and Writing Studies 100 and SDSU Writing Competency requirement. Effective communication applied to business letters, memos, and long reports. Includes the organization, writing, and presentation of business documents using word processing software. Incorporates basic principles of speaking effectively for business.

UPPER DIVISION COURSES  
(Reserved for Undergraduates)

IDS 301. Statistical Analysis for Business (3)  
Prerequisites: Mathematics 120 or Economics 201 or Statistics 119. Approved upper division business major, business minor, or another major approved by the College of Business Administration. Proof of completion of prerequisites required: Copy of transcript. Statistical methods applied to business decision making.

IDS 302. Introduction to Operations Management (3)  
Prerequisites: Mathematics 120 or Economics 201 or Statistics 119. Approved upper division business major, business minor, or another major approved by the College of Business Administration. Proof of completion of prerequisites required: Copy of transcript. Production and operations management. Master scheduling, material requirements planning, inventory management, capacity planning, production activity control, location analysis, automation, computerized systems, layout planning, linear programming, decision making, queuing, simulation, quality control, project planning.
IDS 306. Information Systems Analysis (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Systems development life cycle concept, with emphasis on analysis of requirements using structured methodology. Feasibility study, needs assessment, prototyping, application design alternatives.

IDS 315. Business Application Programming (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Computer programming for business applications. Appropriate data structures, control structures and program structures. Languages widely used in business applications.

IDS 375. Information Systems Technology (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Technologies underlying information systems, including computer organization and components, computer arithmetic, I/O and storage, multimedia processing, data communications fundamentals, local area networks, internetworking, and workgroup computing.

IDS 380. Data Management Systems (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Methodology for applying data base management systems in design of information systems. Analysis of data base applications from perspectives of system users and systems analysts.

IDS 390W. Reporting Techniques for Accountants (4)
Prerequisites: Credit or concurrent registration in Accountancy 321. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test score or verification of exemption; copy of transcript.
Advanced preparation of written and oral reports with application to professional needs of accountants.

IDS 396W. Reporting Techniques for Business Professionals (3)
Prerequisites: Information and Decision Systems 290. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test score or verification of exemption; copy of transcript. Must be admitted to the upper division major in business.
Advanced preparation of oral and written reports used in business and other organizations. Individualized study of reports in student’s career field.

IDS 406. Information Systems Design (3)
Prerequisites: Information and Decision Systems 306, 315, 380.
Business information systems design, installation, and implementation as part of the systems development life cycle, with emphasis on structured design methodology.

IDS 460. Project Management (3)
Prerequisites: Credit or concurrent registration in Information and Decision Systems 302.
Management of small and large projects. Work breakdown structure milestones, project cost estimating and reporting, and single and multiple resource allocation/leveling. Computerized project management software.

IDS 481. E-Business/Web Development (3)
Prerequisites: Information and Decision Systems 306, 315, 380, and credit or concurrent registration in Information and Decision Systems 406.
Issues and tools related to developing Internet-based applications with database integration through hands-on projects. Developing complex sets of Web pages by linking front-end Web browser languages and databases via back-end server languages, database queries, and middleware.

IDS 482. Information Technology Projects (3)
Prerequisites: Completion of at least 18 units of upper division information and decision systems courses.
Projects with San Diego area client organizations related to information technologies; topics may include: development life cycles, rapid application development, managing teams, client management, group interaction and conflict resolution, software metrics, and quality assurance techniques.

IDS 483. Networks and Data Communications (3)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.
Fundamental data communications concepts, including voice communications and carrier service offerings, communications hardware, and network design. Global, enterprise, workgroup, and local area networks. Protocols and network operating systems. Network security and control.

IDS 492. Management of Information Systems (3)
Prerequisites: Information and Decision Systems 306 and 380.
Proof of completion of prerequisites required: Copy of transcript.
Role of information systems in organizations from management perspective: strategic information system planning, systems administration, and management of end user computing. Management issues related to systems development and implementation. Management of computer operations and the computer center.

IDS 496. Selected Topics in Information Systems (1-4)
Prerequisites: Consent of department chair.
Selected areas of concern in information systems. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

IDS 498. Investigation and Report (1-3)
Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with information systems under the direction of one or more members of the information systems staff. May be repeated with new content. Maximum credit six units.

IDS 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

IDS 515. Intermediate Programming for Business Applications (3)
Prerequisites: Information and Decision Systems 315 or knowledge of one computer programming language. Intermediate programming for business applications with Java, C#, or similar languages. Data structures, control structures, and program structures. Use of object-oriented features, classes, subclasses, and inheritance for modeling and processing of business information.
IDS 520. Advanced Programming for Business Applications (3)
Prerequisite: Information and Decision Systems 515.
Advanced object-oriented features using Java (abstract classes, polymorphism, interfaces, generic classes) for business application programs using graphical user interfaces. Use of multithreading for business simulation. Enhancement of business applications with multimedia and database connectivity.

GRADUATE COURSES
Refer to the Graduate Bulletin.

International Business (I B)

In the College of Arts and Letters and the College of Business Administration

LOWER DIVISION COURSES
I B 296. Topics in International Business (1-3)
Selected topics in international business. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.
I B 299. Special Study (3-6)
Prerequisites: Pre-International Business major. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)
I B 490. Senior Honors Thesis (3) Cr/NC
Prerequisites: Senior standing and consent of honors thesis adviser.
Directed research or project on a topic related to international business chosen in consultation with the honors adviser and completion of a senior honors thesis. Required of students wishing to graduate with an Honors Certificate of Recognition in International Business.
I B 495. International Business Internship (3) Cr/NC/RP
Prerequisites: Consent of instructor; upper division standing in the major.
Internships with international business firms, nonprofit organizations, and government agencies in U.S. and abroad. Work done under joint direction of activity sponsor and instructor. Project report and internship conferences required. Maximum credit three units.
I B 498. Doing Business Internationally (1) Cr/NC
Prerequisites: Upper division status in the major.
Required business customs and protocol course pertinent to all regions.
I B 499. Special Study (1-6)
Prerequisites: International business major. Individual study. Maximum credit six units.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)
I B 596. Topics in International Business (1-3)
Prerequisites: Upper division standing.
Selected topics in international business. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

International Security and Conflict Resolution (ISCOR)

In the College of Arts and Letters, the College of Professional Studies and Fine Arts, and the College of Sciences

UPPER DIVISION COURSES
(Intended for Undergraduates)
ISCOR 300. Global Systems (3) [GE]
Prerequisites: Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.
Evolution and development of global systems, characteristics of contemporary and global systems and formulation of criteria for projecting the future of the systems.
ISCOR 301. Conflict and Conflict Resolution (3) [GE]
Prerequisites: Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.
Conflict resolution as an emerging field; theories of conflict; methods and implications of conflict management including group, institutional, and international level analysis.
ISCOR 310. Our Global Future: Values for Survival (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B. Social and Behavioral Sciences.
Identifies resource and social crises toward which contemporary American values are leading, examines the nature of human action; contrasts other value systems with ours; considers origins of our values and the individual’s potential for changing them. Interdisciplinary.
ISCOR 320. International Security in the Nuclear Age (3) [GE]
Prerequisites: Upper division standing. Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.
International security issues from historical, ethical, economic and sociopsychological perspectives, including the security environment after the Cold War and current sources of conflict. The proliferation of weapons of mass destruction, including nuclear weapons is discussed.
ISCOR 421. Alternative Dispute Resolution: Theory and International Applications (3)
Prerequisites: Upper division standing.
Theory of collaborative negotiation and mediation, practice of negotiation and mediation skills and techniques, and focus on personal styles of mediation and collaborative negotiating. Emphasis on resolving conflicts on the international level.
ISCOR 450. Study Abroad in International Security and Conflict Resolution (3)
Prerequisites: Upper division standing. Class Schedule may have other prerequisites.
Selected topics in international security and conflict resolution. Course taught abroad. Potential additional prerequisites and location of course and organizational meetings. May be repeated once with new content. See Class Schedule for specific content. Maximum credit six units.
ISCOR 495. Internship in International Security and Conflict Resolution (3)
Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.
Supervised internship of 150 hours in government or nongovernmental agency, office or business in an area directly related to international security and conflict resolution.
ITALIAN

In the Department of European Studies
In the College of Arts and Letters

LOWER DIVISION COURSES

Native speakers of Italian will not receive credit for taking lower division courses in Italian except with advance approval from the department.

No credit will be given for lower division courses taken after successfully completing any upper division Italian course taught in Italian.

No credit will be given when Italian 100A, 100B, 211, 212, and 301 are taken concurrently or out of sequence.

ITAL 100A. Elementary Italian I (5) [GE]
Prerequisites: Italian 100A or two years of high school Italian.
Continuation of Italian 100A. Not open to students who have completed four years of high school Italian unless the fourth course was completed five or more years ago.

ITAL 100B. Elementary Italian II (5) [GE]
Prerequisites: Italian 100A or two years of high school Italian.
Continuation of Italian 100A. Not open to students who have completed four years of high school Italian unless the fourth course was completed five or more years ago.

ITAL 201. Reading and Speaking Italian (3) [GE]
Prerequisites: Italian 100B or three years of high school Italian.
Emphasis on spoken language with readings of cultural material serving as a basis for discussion.

ITAL 211. Intermediate Italian I (4) [GE]
Four lectures and one hour of laboratory.
Comprehensive review of Italian grammar and practice of all language skills at intermediate level within context of Italian culture.

ITAL 212. Intermediate Italian II (4) [GE]
Four lectures and one hour of laboratory.
Prerequisite: Italian 211.
Continuation of Italian 211. Comprehensive review of Italian grammar and practice of all language skills at intermediate level within context of Italian culture. Italian minors and international business majors are encouraged to concurrently register in Italian 201.

ITAL 296. Topics in Italian Studies (1-4)
Prerequisites: Italian 100B or three years of high school Italian.
Topics in Italian language and culture. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Taught in Italian.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ITAL 496. Selected Topics in International Security and Conflict Resolution (1-3)
Selected topics in international security and conflict resolution. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 496, 596, 596 courses applicable to a bachelor’s degree.

ITAL 497. Thesis in International Security and Conflict Resolution (3)
Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor. An original and comprehensive written description and analysis of a problem or problem area in international security and conflict resolution.

ITAL 499. Special Study (1-3)
Prerequisites: Consent of instructor. Six units of international security and conflict resolution core courses and six units in specialization. Individual study. Maximum credit six units.

ITAL 575. Homeland Security (3)
Prerequisites: Upper division or graduate standing.
Evaluates components of homeland security. Research and analysis of homeland security policies and laws. Comparisons between homeland security policies and laws of various nations. Links between conflict abroad and homeland security in the United States. (Formerly numbered International Security and Conflict Resolution 475.)

ITAL 596. Topics in Italian Studies (1-4)
Prerequisites: Eleven units of 200-level Italian and completion of the General Education requirement in Foundations II. C., Humanities.
Topics in Italian language and culture. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 596, 496, 596 courses applicable to a bachelor’s degree. Taught in Italian.

ITAL 605A. Italian Literature (3) [GE]
Prerequisites: Eleven units of 200-level Italian and completion of the General Education requirement in Foundations II. C., Humanities.
Major aspects of Italian civilization with emphasis on art, music, history, and cinema.

ITAL 605B. Italian Literature (3) [GE]
Prerequisites: Eleven units of 200-level Italian and completion of the General Education requirement in Foundations II. C., Humanities.
Important movements, authors and works in Italian literature from Middle Ages to the Renaissance.

ITAL 605C. Italian Literature (3) [GE]
Prerequisites: Eleven units of 200-level Italian and completion of the General Education requirement in Foundations II. C., Humanities.
Continuation of Italian 605A from the Renaissance to the present.

ITAL 605D. Italian Literature (3) [GE]
Prerequisites: Eleven units of 200-level Italian and completion of the General Education requirement in Foundations II. C., Humanities.
Continuation of Italian 605B from the Renaissance to the present.

ITAL 605E. Italian Literature (3) [GE]
Prerequisites: Eleven units of 200-level Italian and completion of the General Education requirement in Foundations II. C., Humanities.
Continuation of Italian 605D from the Renaissance to the present.

ITAL 621. Intermediate Italian I (4) [GE]
Four lectures and one hour of laboratory.
Comprehensive review of Italian grammar and practice of all language skills at intermediate level within context of Italian culture.

ITAL 622. Issues in Italian Studies (3)
Prerequisites: Completion of at least one upper division course in Italian.
Interdisciplinary approach to major themes and figures of Italian culture. Emphasis on social, literary, artistic, and political movements underlying development of contemporary Italy.

ITAL 624. Italian Cinema (3)
Two lectures and two hours of activity.
Prerequisites: Completion of at least one upper division course in Italian.
Development of Italian cinema. Previewing lectures enhance cultural comprehension. Post-viewing discussions stimulate ideas for written work and final projects. Lectures and discussions in Italian.

ITAL 626. Italian American Culture (3)
Prerequisites: Upper division standing.
Italian American experience of migration, identity formation, ethnic conflict, integration and assimilation, in a variety of genres and media, from literature to film, music and theatre, fiction and non-fiction. Taught in English.

ITAL 496. Selected Topics (1-4)
Topics in Italian language, literature, culture and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 496, 496, 596 courses applicable to a bachelor’s degree. Maximum credit eight units. Conducted in English or in Italian.

ITAL 499. Special Study (1-3)
Prerequisites: Italian 301 and 305A or 305B.
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Italian available in any given semester.
UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

ITAL 510. Italian and Italophone Cultural Studies (3)
Prerequisites: Italian 301 and 421. Artistic, intellectual, literary, social and political trends in Italy and in diaspora. May be repeated with new title and content. Maximum credit six units.

Japanese (JAPAN)
In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES

Native speakers of Japanese will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in Japanese are taught in Japanese. No credit will be given for lower division courses taken after successfully completing any upper division Japanese course taught in Japanese.

No credit will be given for Japanese 111, 112, 211, 212 taken out of sequence.

JAPAN 111. Elementary Japanese I (6) [GE]
Six lectures and one hour of laboratory.
Elementary language skills: fundamental grammar, idiomatic expressions, hiragana, katakana, and basic kanji characters. Reading, writing, speaking, oral-aural drills, and relationship between language and culture. Not open to students who have completed three years of high school Japanese unless the third course was completed five or more years ago. (Formerly numbered Japanese 101.)

JAPAN 112. Elementary Japanese II (6) [GE]
Six lectures and one hour of laboratory.
Prerequisites: Japanese 111.
Continuation of Japanese 111. Preparation for Japanese 211. Not open to students who have completed four years of high school Japanese unless the fourth course was completed five or more years ago. (Formerly numbered Japanese 102 and 202.)

JAPAN 211. Intermediate Japanese I (6) [GE]
Six lectures and one hour of laboratory.
Prerequisites: Japanese 112.

JAPAN 212. Intermediate Japanese II (6) [GE]
Six lectures and one hour of laboratory.
Prerequisites: Japanese 211.
Strengthening communication skills in Japanese; various literary styles; additional kyoiku kanji. Cultural values shaping modern Japanese society; intercultural communication. Preparation for Japanese 311.

JAPAN 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

JAPAN 299. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Japanese are taught in Japanese unless otherwise stated. No credit will be given for Japanese 311, 312, 411, 412 taken out of sequence.

JAPAN 311. Third Year Japanese I (4) [GE]
Four Lectures and one hour of laboratory.

JAPAN 312. Third Year Japanese II (4) [GE]
Four lectures and one hour of laboratory.
Further strengthening of communication skills in Japanese; various literary styles; introduction of chugaku kanji. Social and economic issues in Japan and the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 411.

JAPAN 321. Advanced Japanese Discourse (4)
Prerequisite: Japanese 212.
Development of advanced communication skills through Japanese media such as Japanese news broadcasts and television drama. Focus on oral communication.

JAPAN 322. Advanced Conversation Through Media (4)
Prerequisite: Japanese 311.
Development of advanced communication skills through Japanese media such as Japanese news broadcasts and television drama. Focus on oral communication.

JAPAN 411. Fourth Year Japanese I (4)
Prerequisites: Japanese 312.
Continuation of Japanese 312. Further strengthening of communication skills in Japanese; various literary styles; more chugaku kanji. Social and economic issues in Japan and in the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 412.

JAPAN 412. Fourth Year Japanese II (4)
Prerequisites: Japanese 411.
Continuation of Japanese 411. Further strengthening of communication skills in Japanese; various literary styles; all jyousoku kanji. Social and economic issues in Japan and the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication.

JAPAN 421. Japanese Literary Through Text and Film (4)
Prerequisites: Japanese 312.
Japanese literature from earliest times to present. Major works of modern Japanese fiction as a literary genre and their cinematic interpretation.

JAPAN 422. Newspaper Reading and Advanced Composition (4)
Prerequisite: Japanese 411.
Development of reading and writing skills through texts taken from current Japanese newspapers and broadcast news.

JAPAN 496. Topics in Japanese Studies (1-4)
Topics in Japanese language, literature, culture and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit eight units.

JAPAN 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.
Jewish Studies (JS)
In the College of Arts and Letters

LOWER DIVISION COURSES

JS 130. The Jewish Heritage (3) [GE]
Hebraic and Jewish influences on the arts, literature, philosophy, and religion of Western civilization.

JS 296. Topics in Jewish Studies (1-3)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

JS 495. Jewish Studies Internship (3) Cr/NC
Internship with local Jewish service agencies and non-profit organizations. Work to be done under direction of activity supervisor and SDSU instructor. Six hours per week at agency and one hour every other week with SDSU supervising faculty member. Prerequisites: Upper division status and consent of supervising instructor.

JS 496. Topics in Jewish Studies (1-3)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

Journalism and Media Studies (JMS)
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

JMS 200. Mediated Communication in the Information Age (3) [GE]
Mass media and emerging forms of niche media in the global community. Theories, structures, functions, practices, problems, interrelationships, economics, critical analyses, history, and ethics. (Formerly numbered Communication 200.)

JMS 220. Writing for the Mass Media (3)
One lecture and four hours of activity. Prerequisites: Sophomore standing; ability to type; and a passing score on the Grammar, Spelling and Punctuation test. Introduction to writing techniques for mass media. Laboratory practice in informational and persuasive writing, evaluation, and judgment. (Formerly numbered Journalism 220.)

JMS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

JMS 300. Principles of Journalism (3)
Prerequisites: Upper division standing. Theory and practice of journalism, survey of history, ethics, law, international news systems, and social responsibility of the press. Operations of newspapers, news magazines, radio and television news departments, and other news agencies. Impact of new media and technology on journalism, economics, and management of news organizations. (Formerly numbered Journalism 300.)

JMS 309. Workshop (1-3) Cr/NC
Prerequisites: Consent of instructor. Practical experience in an area of study within the School of Journalism and Media Studies. Maximum credit three units. (Formerly numbered Communication 309B.)

JMS 310W. Media Writing and Reporting (3)
Two lectures and two hours of activity. Prerequisites: Journalism and Media Studies 220 with a grade of C (2.0) or better. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: copy of transcript. Admission to majors and minors in Advertising, Journalism, and Public Relations.

JMS 315. Editing for Print Media (3)
One lecture and four hours of activity. Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Techniques of preparing content for print publication, including copy editing, headline writing, use of photos and graphics, and layout and design. Laboratory experience. (Formerly numbered Journalism 315.)

JMS 375. Media Technology in the Global Environment (3)
Two lectures and one hour of discussion. Prerequisites: Upper division standing and Journalism and Media Studies 200 with grade of C (2.0) or better. Media theories, models, and research exploring media effects, technology's crucial role in shaping the knowledge economy and communication policies affecting life and work in the global age. Digital communication, media convergence, media regulation, and economic development. (Formerly numbered Communication 375.)

JMS 408. Media and Society (3)
Two lectures and one hour of discussion. Prerequisites: Upper division standing. Media theories, models, and research exploring media effects, and audience uses of media. (Formerly numbered Communication 408.)

JMS 409. Women and Media (3)
Prerequisites: Upper division standing. Admission to a major or minor in the School of Journalism and Media Studies. Proof of completion of prerequisites required: Copy of transcript. Role of women in media, including messages about women and employment status of women. (Formerly numbered Communication 409.)

JMS 410. Media and Sexuality (3)
Prerequisites: Admission to a major or minor in the School of Journalism and Media Studies. Proof of completion of prerequisite required: Copy of transcript. Sexuality and sex-related issues in mass mediated news, entertainment, and advertising content. Sexuality in media and its effects on interpersonal relations, sexual identity, sexual politics, social discourse, and public policy. Portrayals of conventional sexuality and of sexual minorities.

JMS 412. Media and Individual Empowerment (3)
Two lectures and one hour of discussion. Prerequisites: Journalism and Media Studies 408 with grade of C (2.0) or better. Admission to Media Studies specialization. Proof of completion of prerequisites required: Copy of transcript. Reviewing and dissecting claims made by media organizations. Examining models about how individuals make sense of these claims. Investigating how individual and group actions can alter media institutions and content.
JMS 420. Public Affairs News Reporting (3)
One lecture and four hours of activity.
Prerequisites: Journalism and Media Studies 300, 310W. Admission to Journalism major or minor. Proof of completion of prerequisites required: Copy of transcript.
Field and laboratory practice in news gathering and writing, covering news beats including courts, local governments, and other news sources. Emphasis on accuracy, clarity, comprehensiveness and interpretation. (Formerly numbered Journalism 420.)

JMS 425. Writing Opinion, Reviews, and Criticism (3)
Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.
Principles and practices of writing editorials and opinion essays for media outlets (print, broadcast, and online) to include writing reviews of theatre, music, books, and film. (Formerly numbered Journalism 425.)

JMS 430. Online Writing and Design (3)
Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.
Using the Web to publish media content and design to include how to use text, graphics, sound, and video to effectively transmit information. Role and responsibilities of media professionals as they add online publication to already established print and broadcast platforms.

JMS 440. Management of Media Organizations (3)
Prerequisites: Upper division standing. Proof of completion of prerequisites required: Copy of transcript.
Revenue generation, marketing, distribution, production, personnel, social responsibilities, and current developments in media organizations. Planning, organizing, implementing organizational plans. (Formerly numbered Communication 440.)

JMS 441. Magazine and Feature Writing (3)
One lecture and four hours of activity.
Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.
Electronic news, focusing on reporting and producing news. Shooting, writing, editing, and presenting news. Roles and responsibilities in electronic newsrooms to include role of producer.

JMS 445. Electronic News Reporting and Producing (3)
One lecture and four hours of activity.
Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.
Principles and practices of writing editorials and opinion essays for media outlets (print, broadcast, and online) to include writing reviews of theatre, music, books, and film. (Formerly numbered Journalism 441.)

JMS 450. Using Media to Understand Cultures (3)
Prerequisites: Journalism and Media Studies 408 with grade of C (2.0) or better. Admission to Media Studies specialization. Proof of completion of prerequisites required: Copy of transcript.
Cultural phenomena through media products to include films, television programs, print media. Appreciation of various cultures and practices through analysis of media products.

JMS 460. Principles of Advertising (3)
Prerequisites: Upper division standing.
Principles and techniques of writing news releases and media relations, government agencies, associations, and not-for-profit organizations. (Formerly numbered Communication 460.)

JMS 461. Advertising Creative Development (3)
One lecture and four hours of activity.
Prerequisites: Journalism and Media Studies 310W and 460 with grades of C (2.0) or better in each course. Admission to Advertising majors and minors. Major Code: 06044. Proof of completion of prerequisites required: Copy of transcript.
Advertising creative philosophy, strategy, and tactics; art, copy, and creation of advertisements for broadcast, print, and interactive electronic media. Application of computers to creative development. (Formerly numbered Communication 461.)

JMS 470. Multimedia News Writing (3)
One lecture and four hours of activity.
Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.
Principles and techniques of writing news for print, online, radio-television, and emerging media platforms. Field and laboratory experience. (Formerly numbered Journalism 470.)

JMS 475. Mediated Communication in Intercultural Contexts (3)
Prerequisites: Admission to a major or minor in the School of Journalism and Media Studies.
Role of culture in professional fields such as advertising, journalism, media studies, and public relations. Cultural values and practices as applied to various mediated communication products and contexts.

JMS 480. Principles of Public Relations (3)
Prerequisites: Upper division standing.
Concepts, history, theory, social responsibility, and management of public relations. Survey of problems and practices in corporations, government agencies, associations, and not-for-profit organizations. (Formerly numbered Communication 480.)

JMS 481. Public Relations Media and Methods (3)
One lecture and four hours of activity.
Prerequisites: Journalism and Media Studies 310W and 480 with grades of C (2.0) or better in each course. Admission to Public Relations majors and minors. Major Code: 05992. Proof of completion of prerequisites required: Copy of transcript.
Practical applications of public relations techniques with emphasis on writing and media usage. News releases and media relations, print and electronic communications production, multi-media techniques, speeches, other audio-visual presentations, and special events. Field and laboratory practice. (Formerly numbered Communication 481.)

JMS 489. Research Methods in Mediated Communication (3)
Two lectures and one hour of discussion.
Prerequisites: Upper division standing and Journalism and Media Studies 200 with grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.
Understanding and critically analyzing media reports of public opinion polls and other scientific research. Sampling and inferences to populations. Basic design and measurement issues. Margin of error. Levels of measure. (Formerly numbered Communication 489.)

JMS 490A. Advertising Internship (1-3) Cr/NC
Prerequisites: Upper division standing, consent of instructor, and Journalism and Media Studies 461 with grade of C (2.0) or better.
Supervised work at organizations engaged in professional advertising activities under combined direction of practitioners and professors. Maximum credit three units.

JMS 490B. Public Relations Internship (1-3) Cr/NC
Prerequisites: Upper division standing, consent of instructor, and Journalism and Media Studies 481 with grade of C (2.0) or better.
Supervised work at organizations engaged in professional public relations activities under combined direction of practitioners and professors. Maximum credit three units.

JMS 490C. Journalism Internship (1-3) Cr/NC
Prerequisites: Upper division standing, consent of instructor, and Journalism and Media Studies 420 with grade of C (2.0) or better.
Supervised work at organizations engaged in professional journalism activities under combined direction of practitioners and professors. Maximum credit three units.
JMS 492. Media Convergence (3)  
Prerequisites: Journalism and Media Studies 412 and 450 with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.  
New and often unexpected convergence of media institutions, technology, and content. New economic and social alliances, uses, and effects.

JMS 494. Media Law and Ethics (3)  
Two lectures and one hour of discussion.  
Prerequisites: Upper division standing and Journalism and Media Studies 200 with grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.  
Importance of freedom of expression. Legal issues and responsibilities of print, broadcast, and online media, and applications to advertising, journalism, and public relations. Ethical dilemmas encountered by media professionals and communication specialists, including challenges posed by global technologies. (Formerly numbered Communication 502.)

JMS 496. Experimental Topics (1-3)  
Prerequisites: Upper division standing and consent of instructor. Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

JMS 499. Special Study (1-3)  
Prerequisites: Upper division standing and consent of instructor. Individual study or project, normally in a research area selected by the student. Maximum credit three units.

UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)

JMS 505. Government and Telecommunications (3)  
Prerequisites: Admission to a major or minor in the School of Journalism and Media Studies. Proof of completion of prerequisites required: Copy of transcript.  
Responsibilities of telecommunication organizations as prescribed by law, government policies and regulations, and significant court decisions. (Formerly numbered Communication 505.)

JMS 506. Advertising and Society (3)  
Prerequisites: Admission to a major or minor in the School of Journalism and Media Studies. Proof of completion of prerequisites required: Copy of transcript.  
Theoretical and philosophical analysis of advertising in modern society. (Formerly numbered Communication 506.)

JMS 529. Investigative Reporting (3)  
One lecture and four hours of activity.  
Prerequisites: Journalism and Media Studies 300, 310W with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.  
Development of articles of substance and depth in specialized areas. Research, analysis and interpretation of complex issues in the news. Special problems of the sustained, reportorial effort. Field and laboratory practice. (Formerly numbered Journalism 529.)

JMS 550. Multimedia News Laboratory (3)  
One lecture and four hours of activity.  
Prerequisites: Journalism and Media Studies 300, 310W, 420 and three units selected from Journalism and Media Studies 315, 430, 445 with grades of C (2.0) or better in each course. Proof of completion of prerequisites required: Copy of transcript.  
Capstone course using skills and knowledge acquired in critical thinking, writing, reporting, editing, production, and design courses. Teams prepare multimedia news content. Field and laboratory experience. (Formerly numbered Journalism 550.)

JMS 560. Advertising Research (3)  
Prerequisites: Journalism and Media Studies 310W and 460 with grades of C (2.0) or better in each course. Admission to advertising majors and minors, Major Code: 06041. Proof of completion of prerequisites required: Copy of transcript.  
Systematic application of quantitative and qualitative research to planning, design, and management of advertising campaigns. Cases, practices, and problems in application of research to consumer, market analysis, positioning, creative selection, media planning, and campaign evaluation. (Formerly numbered Communication 560.)

JMS 565. Advertising Campaigns (3)  
Prerequisites: Journalism and Media Studies 461 and 560 with grades of C (2.0) or better in each course.  
Planning and creation of advertising campaigns including situation analysis and strategy, advertising and marketing objectives, consumer analysis and target audience selection, creative development, media strategy and tactics, sales promotion, and campaign evaluation. (Formerly numbered Communication 565.)

JMS 574. International Advertising (3)  
Prerequisites: Admission to a major or minor in the School of Journalism and Media Studies.  
Comparative cultural, economic, legal, political, and social conditions relevant to international advertising. (Formerly numbered Communication 574.)

JMS 581. Public Relations Research (3)  
Two lectures and two hours of activity.  
Prerequisites: Journalism and Media Studies 310W and 480 with grades of C (2.0) or better in each course. Admission to public relations majors and minors, Major Code: 05992. Proof of completion of prerequisites required: Copy of transcript.  
Qualitative and quantitative methods used in evaluation research to plan, track, and evaluate public relations programs. Computerized statistical analysis. (Formerly numbered Communication 581.)

JMS 585. Professional Practices in Public Relations (3)  
Prerequisites: Journalism and Media Studies 481 and 581 with grades of C (2.0) or better in each course.  
Cases in public relations management. Theory and practice of issues management, integration of the public relations function in strategic management in a variety of corporate, governmental, nonprofit, social, and cultural organizations. (Formerly numbered Communication 585.)

JMS 589. Ethical Issues in Mediated Communication (3)  
Prerequisites: Upper division standing or graduate standing. Admission to a major or minor for undergraduates in the School of Journalism and Media Studies. Proof of completion of prerequisites required: Copy of transcript.  
Ethical challenges faced by journalists, public relations and advertising professionals, and other communication specialists. Classical and modern ethical concepts and issues as they apply to mediated communication, as well as codes of ethics. (Formerly numbered Communication 589.)

JMS 591. International Telecommunications (3)  
Prerequisites: Admission to a major or minor in the School of Journalism and Media Studies. Proof of completion of prerequisite required: Copy of transcript.  
Comparative study of economic, social, political determinants of broadcasting, and telecommunications systems around the world. (Formerly numbered Communication 591.)

JMS 595. Seminar in Theoretical Approaches to Public Relations (3)  
Prerequisites: Journalism and Media Studies 585 with grade of C (2.0) or better.  
Diverse theoretical approaches to public relations, including management, rhetorical, critical, relational and marketing approaches. Preparation for independent scholarly research project or master's thesis.
Latin American Studies (LATAM)

In the College of Arts and Letters

LOWER DIVISION COURSES

Native speakers of Mixtec or Zapotec will not receive credit for taking lower division courses in Mixtec or Zapotec except with advance approval from Latin American Studies.

All lower division courses in Mixtec or Zapotec are taught in Mixtec or Zapotec.

No credit will be given for Latin American Studies 110, 111, and 210 taken out of sequence.

LATAM 101. Latin American Heritage (3) [GE]
Introduction to Latin American cultures and peoples from an interdisciplinary perspective.

LATAM 110. Elementary Mixtec I (4) [GE]
Mixtec language and culture. Pronunciation, oral practice, reading, and listening comprehension and essentials of grammar in a communicative context and through task-based activities. Not open to students who have completed three years of high school Mixtec unless the third course was completed five or more years ago. Not open to students with credit in Latin American Studies 111.

LATAM 111. Elementary Mixtec II (4) [GE]
Continuation of Latin American Studies 110. Development of increased proficiency in Mixtec language and culture. Pronunciation, oral practice, listening comprehension, reading and writing, and grammar in a communicative context and through task-based activities. Not open to students who have completed four years of high school Mixtec unless the fourth course was completed five or more years ago.

LATAM 120. Elementary Zapotec I (4) [GE]
Zapotec language and culture. Pronunciation, oral practice, reading, listening comprehension, and essentials of grammar. Not open to students who have completed three years of high school Zapotec unless the third course was completed five or more years ago.

LATAM 121. Elementary Zapotec II (4) [GE]
Prerequisite: Latin American Studies 110.
Continuation of Latin American Studies 120. Development of increased proficiency in Zapotec language and culture. Pronunciation, oral practice, listening comprehension, reading and writing, and grammar. Not open to students who have completed four years of high school Zapotec unless the fourth course was completed five or more years ago.

LATAM 210. Intermediate Mixtec I (4) [GE]
Prerequisite: Latin American Studies 111.
Further development of speaking and writing skills, both extended to discourse level and with emphasis on language of everyday life. Integrated approach to learning Mixtec to include awareness and appreciation of the Mixtec culture. Not open to students who have completed five years of high school Mixtec unless the fifth course was completed five or more years ago.

LATAM 307. Brazilian Music and Culture (3) [GE]
(Same course as Portuguese 307)
Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Brazilian music and culture with emphasis on religious and cultural practices of candomble, capoeira, carnival, and notions of race and class in contemporary Brazilian funk and hip-hop. Taught in English.

LATAM 320. Culture and Society of Tijuana (3)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Mexican dance, art, music, cuisine, politics, tourism industry, education, and other facets of daily life through visits to selected venues.

LATAM 340. Globalization and Mexican Industry (3)
Prerequisite: One course selected from Latin American Studies 101, Anthropology 102, Economics 101, Geography 102, Political Science 103.
Mexico's industrial models in comparative perspective, including tensions between regionalization and globalization, range of industrial models and production models, industry case studies, and institutional development at regional level.

LATAM 350. Globalization and the Americas (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Introduction to Latin American Politics. Knowledge of political change and political systems in Latin America, viewed historically and comparatively, using concepts and theories applicable to more general political analysis.

LATAM 366. Latin American Politics (3)
(Same course as Political Science 366)
Prerequisites: Completion of the American Institutions requirement.
U.S. immigration and border politics within a global and historical perspective. Transformations of sovereignty, communities, identity, and rights within an area of mass migration and economic interdependence. Policy and popular debates about admission, border control, and incorporation of migrants.

LATAM 430. Immigration and Border Politics (3)
(Same course as Political Science 430)
Prerequisites: Completion of the American Institutions requirement.
LATAM 459. Latin American Studies Internship (3) Cr/NC
Prerequisites: Six upper division units in Latin American content courses.
Opportunity for Latin American studies undergraduates to implement area specialist skills. Placement with a local organization with legal, commercial, or social service functions whose activities are primarily Latin American related. May be repeated with new content. Maximum credit six units.

LATAM 495. Latin American Studies Internship (3) Cr/NC
Prerequisites: Six upper division units in Latin American content courses.
Opportunity for Latin American studies undergraduates to implement area specialist skills. Placement with a local organization with legal, commercial, or social service functions whose activities are primarily Latin American related. May be repeated with new content. Maximum credit six units.

LATAM 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

LATAM 498. Seminar on Latin America (3)
Exploration of the interdisciplinary approach to Latin America including evaluation of relevant resources and methods. Taught by a team of instructors representing two or more disciplines.

LATAM 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.
UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

LATAM 510. Latin America Research Through Primary Sources (3)
Prerequisite: Graduate standing or 12 units of upper division coursework on Latin America.
Primary sources, both textual and material to interpret the past. Skills to conduct research in an archive, library, museum, or private collection in Latin America. How to incorporate primary sources into a major research project.

LATAM 540. History, Society, and Ecology of Baja Peninsula (3)
Prerequisites: Latin American Studies 101; Geography 102; Anthropology 102 or Political Science 103.
Historical and social anthropology of Baja Peninsula, current issues in socio-economy of a small region, relations between human activity and natural environment, flora and fauna of region, and challenges to ecological preservation.

LATAM 550. Mexican-US Border from a Latin American Perspective (3)
Prerequisites: Six upper division units with Latin American content. Spanish proficiency. Multidisciplinary analysis of Mexican-US border region.

LATAM 555. Women’s Rights and Citizenship in Latin America (3)
Prerequisites: Latin American Studies 101; Political Science 103 or Women’s Studies 101.
Women’s roles in war, counter-insurgency and human rights movements of 1970s and 1980s; women and social movements; female citizenship and socio-political participation in Latin American countries.

LATAM 560. Latin America After World War II (3)
Prerequisites: Latin American Studies 101; History 115, 116; and Political Science 566.
Major socioeconomic and political changes in Latin America since World War II and inter-American relations during the same period. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

LATAM 580. Special Topics (1-4)
Prerequisites: Six upper division units in Latin American content courses.
Interdisciplinary study of selected Latin American topics. Credit will vary depending on the scope and nature of the topic. Whenever appropriate, the course will be taught by a team of instructors representing two or more disciplines. May be repeated with different content. See Class Schedule for specific content. Maximum credit eight units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

LING 200. Advanced English for International Students (3) [GE]
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores (including ISEPT) or verification of exemption; proof of Cr in Rhetoric and Writing Studies 92A or 92B or 97, or notification from the Department of Rhetoric and Writing Studies.
Introduction to college-level written English; attention to English language/grammar needs of non-native speakers of English; grammatical and rhetorical techniques for effective writing, based in part on study of models of current American writing. Not open to students with credit in Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

LING 101. Introduction to Language (3) [GE]
The nature of language. Sound, meaning, and grammar. Language history and change. Dialects and variation. Language acquisition. Animal communication. Language and the brain. Not open to students with credit in upper division linguistics courses, excluding Linguistics 305W.

LING 201. Introduction to Language (3) [GE]
The nature of language. Sound, meaning, and grammar. Language history and change. Dialects and variation. Language acquisition. Animal communication. Language and the brain. Not open to students with credit in upper division linguistics courses, excluding Linguistics 305W.

LING 498. Assessment in Liberal Studies (0.5-1) Cr/NC
Prerequisites: Liberal Studies 300 and successful completion of one upper division semester of the liberal studies major. Not open to premajors.
Senior assessment including reflections upon educational experiences in each subject area and role as future educator. Students will explore differences between subject areas and reflect upon learning and teaching.

Linguistics (LING)

In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES

LING 94. Developmental Writing for International or Bilingual Students (3) Cr/NC/RP
(Same course as Rhetoric and Writing Studies 94)
Intermediate written English with emphasis on problems of nonnative speakers; discussion of sentence, paragraph, and essay writing skills. Open only to ESL students who have not satisfied the SDSU Writing Competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" should re-enroll in Rhetoric and Writing Studies 94 or Linguistics 94.

LING 100. English Composition for International Students (3) [GE]
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores (including ISEPT) or verification of exemption; proof of Cr in Rhetoric and Writing Studies 92A or 92B or 97, or notification from the Department of Rhetoric and Writing Studies.
Introduction to college-level written English; attention to English language/grammar needs of non-native speakers of English; grammatical and rhetorical techniques for effective writing, based in part on study of models of current American writing. Not open to students with credit in Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

LING 101. Introduction to Language (3) [GE]
The nature of language. Sound, meaning, and grammar. Language history and change. Dialects and variation. Language acquisition. Animal communication. Language and the brain. Not open to students with credit in upper division linguistics courses, excluding Linguistics 305W.
LING 250. Directed Language Study (3)  
Prerequisites: Consent of instructor.  
Directed independent study of a foreign language not offered at San Diego State University with aim of acquiring a developing competency in the language. May include speaking, listening, reading, writing, and grammar. May be repeated with approval of undergraduate adviser. Maximum credit six units.

LING 253. Grammar and Usage for Writers (2)  
(Same course as Rhetoric and Writing Studies 253)  
Prerequisites: Passage of EPT or transfer writing assessment.  
Instruction in sentence structure with attention to integrating sentences into their logical and rhetorical contexts. Identifying and understanding source of sentence-level writing problems.

LING 281. Academic Reading and Writing for Second Language Learners and International Students (3)  
(Same course as Rhetoric and Writing Studies 281)  
Prerequisites: Open only to students who qualify for Rhetoric and Writing Studies 280 and whose first language is not English.  
Academic prose, emphasizing purposes, structures, and styles of academic English writing. Designed to improve students’ ability to plan, draft, revise, and edit essays, as well as to read and analyze complex academic texts. Additional emphasis on grammatical features of English relevant to the second language population.

LING 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

LING 299. Special Study (1-4)  
Prerequisite: Consent of instructor.  
Individual study. Maximum credit six units.

UPPER DIVISION COURSES  
(Intended for Undergraduates)

LING 305W. Advanced Composition for International Students (3)  
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.  
Advanced expository writing, with practice in the various associated skills (organization, research, presentation, rhetoric). The goal is to enable non-native English speakers to function completely with written English on advanced university levels. This course may not be used toward the major or minor in linguistics.

LING 310. English Word Origins (3)  
Traces English word-origins, exposing the romance of their story, while showing how linguistic analysis can help participants to increase their mastery of English vocabulary. Guides for interpreting new or specialized terminology.

LING 311. Writing Systems of the World (3)  
Alphabets and other writing systems around the world, from "logographic" (Sumerian, Egyptian, Mayan, Chinese, Japanese) to syllabary (Japanese, Cherokee), consonantal alphabet or abjad (Hebrew, Arabic), to alphabet (Greek, Roman, etc.). Relevance of writing to thought.

LING 342. Exercises in Foreign Language Learning (3)  
Prerequisites: Two semesters in any foreign language.  
Exercises in foreign language learning with a variety of language structures, as a way of exploring nature of foreign language learning.

LING 344. Language and Gender (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.  
Relationship between language and gender; language variation according to gender, discourse structure and same- and cross-sex interactions; cross-cultural research linking language and gender. Qualitative and quantitative linguistics analyses of language data.

LING 350. Language and Politics (3) [GE]  
Linguistics devices used to persuade in politics. Differences between what is literally said and what is actually conveyed in political discourse. How political speakers and writers use grammar, sound structure, and vocabulary to persuade.

LING 352. Language and Advertising (3)  
Linguistic devices used to persuade in advertising. Differences between what is literally said and what is actually conveyed in advertisements. How advertisers use the grammar, sound structure, and vocabulary of languages (especially English) to persuade audiences.

LING 353. Language and Law (3)  
Legal language; reading legal cases; linguistic and legal analysis of contracts, statutes, constitutions, other "operative" texts; language crimes and forensic linguistics; language and First Amendment law; language under law (minority language, dialect rights).

LING 354. Language and Computers (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.  
Linguistic devices used to persuade in politics. Differences between what is literally said and what is actually conveyed in political discourse. How political speakers and writers use grammar, sound structure, and vocabulary to persuade.

LING 396W. Writing Proficiency (1)  
Prerequisites: Consent of instructor. Limited to linguistics majors. Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.  
Upper division writing course taken in conjunction with any 500-numbered linguistics course. Emphasizes composition skills in research methods, essay organization, paragraphing, sentence structure, and diction, all related to the particular 500-level linguistics course chosen.

LING 410. History of English (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.  
The history of English and its present day use.

LING 420. Linguistics and English (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Introduction to sound and grammatical structure of language, with special attention to English. Language acquisition and variation. Of special interest to prospective teachers. Not open to students with credit in Linguistics 320.

LING 430. English Grammar for Prospective Teachers (3)  
Prerequisites: Linguistics 101 and upper division standing.  
Core grammatical concepts and facts of English grammar. Parts of speech; grammatical relations; word, sentence, discourse structure. Focus on standard written English. Of special interest to prospective secondary school teachers.

LING 452. Language Acquisition (3)  
Prerequisites: Linguistics 420 or 520.  

LING 453. Language Issues in the Schools (3)  
Prerequisites: Linguistics 420.  
Linguistic minorities and dialect variation in interethic communication. Language development from a socio-interactionist perspective. Development of discourse and literacy, and their underlying cognitive and linguistic foundations.
LING 454. Second Language Acquisition (3)
Prerequisites: Linguistics 101 or 420.

LING 457. Community-Based Language Fieldwork (1)
Two hours of activity.
Prerequisites: Concurrent registration in upper division course requiring term paper on language behavior (e.g. Linguistics 452). Fieldwork in language use in community setting. Students observe, keep field notes, analyze language behavior (e.g. speaking, reading, writing, listening).

LING 460. American Indian Languages (3) [GE]
(Same course as American Indian Studies 460)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

LING 496. Experimental Topics in Linguistics (1-4)
Specialized study of a selected topic in linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

LING 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

LING 505. Writing for Graduate Students (3)
Prerequisites: Conditional acceptable to Advanced Degrees
Conventions of scholarly writing appropriate for student papers, theses, or academic journal articles. Development of research questions and literature reviews as appropriate for students' disciplines. Revision of current or previous course papers according to disciplinary conventions.

LING 520. Fundamentals of Linguistics (3)
Prerequisites: Upper division standing.
Principles of modern linguistics, with attention to English grammar (syntax, morphology, phonology). Language change, dialects, sociolinguistics, psycholinguistics, language acquisition.

LING 521. Phonology (3)
Prerequisites: Linguistics 420 or 520.
Theoretical principles of transformational-generative phonology.

LING 522. Syntax (3)
Prerequisites: Linguistics 420 or 520.
Theoretical principles of transformational-generative syntax.

LING 523. Morphology (3)
Prerequisites: Linguistics 420 or 520.
Theoretical principles of words structure, including inflection, derivation, and compounding; organization of the lexicon; structure of inflectional paradigms; morphophonological and morphosyntactic alterations; and computational applications.

LING 524. American Dialectology (3)
Prerequisites: Upper division standing.

LING 525. Semantics and Pragmatics (3)
Prerequisites: Linguistics 420 or 520.
Advanced semantic theory; systematic analysis of the interaction of sequences of language with real world context in which they are used.

LING 530. English Grammar (3)
Prerequisites: Six upper division units in linguistics, English morphology, syntax, and discourse structure, including simple and complex sentence structure; lexical categories and subcategories; discourse functions of selected constructions. Problems and solutions in teaching English grammar.

LING 550. Theory and Practice of English as a Second Language (3)
Prerequisites: Linguistics 420 or 520.
The nature of language learning; evaluation of techniques and materials for the teaching of English as a second language.

LING 551. Sociolinguistics (3)
Prerequisites: A course in introductory linguistics. Investigation of the correlation of social structure and linguistic behavior.

LING 552. Psycholinguistics (3)
Prerequisites: Linguistics 420 or 520.
Psychological and mental processes related to comprehension, production, perception, and acquisition of language in adults and children.

LING 553. Bilingualism (3)
Prerequisites: Linguistics 420 or 520 or Speech, Language, and Hearing Sciences 300.
Bilingual societies; language choice by bilinguals; bilingual language acquisition; effects of bilingualism on language structure and use.

LING 554. Child Language Acquisition (3)
Prerequisites: Linguistics 420 or 520.
Principles of modern linguistics, with attention to English grammar (syntax, morphology, phonology). Language change, dialects, sociolinguistics, language acquisition.

LING 555. Practical Issues in Teaching English as a Second Language (3)
Prerequisites: Linguistics 420 or 520; and credit or concurrent registration in Linguistics 550.
Practical approaches to applications of the theory of English as a Second Language (ESL) and methodology for teaching, speaking, listening, writing; techniques for facilitating growth of communicative competence.

LING 556. Computer Assisted Language Learning and Teaching (3)
Prerequisites: Linguistics 420 or 520; and credit or concurrent registration in Linguistics 550.
Theory and practice of computer assisted language learning and language teaching. Hands-on experience with pedagogical aspects of using technology in the language classroom.

LING 570. Mathematical Linguistics (3)
Prerequisites: Two linguistics courses.
Mathematical tools for linguistics: set theory; basic algebraic structures such as groups, lattices, and Boolean algebras; formal language theory; propositional and 1st-order logic. Some emphasis on proofs. Applications to linguistics.

LING 571. Computational Corpus Linguistics (3)
Prerequisites: Two linguistics courses.
Practical introduction to computation with text corpora and introduction to Perl. Tokenizing, part-of-speech tagging, and lemmatizing (stemming) large corpora. Writing of Perl programs required.
LING 581. Computational Linguistics (3)  
(Same course as Computer Science 581)  
Prerequisites: Linguistics 570 or Mathematics 245; Linguistics 571 or Computer Science 320.  

LING 582. Computational Syntax and Semantics (3)  
Prerequisites: Linguistics 522 and 581.  
Review of finite-state and context free languages; unification grammars; problems of meaning and intention in computational systems. Example applications from information retrieval, dialogue, and machine translation systems.

LING 596. Selected Topics in Linguistics (1-3)  
Prerequisites: Upper division standing.  
Advanced study of selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 596, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES  
Refer to the Graduate Bulletin.

Management (MGT)  
In the College of Business Administration  

LOWER DIVISION COURSE  

MGT 202. Business Professions (1) Cr/NC  
Students explore career options, analyze and evaluate career decisions through self assessment and career research. Computer programs and resources in Career Services library used to identify potential career.

UPPER DIVISION COURSES  
(Intended for Undergraduates)  

MGT 350. Management and Organizational Behavior (3)  
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration. Proof of completion of prerequisite required: Change of major form or other evidence of acceptable major code.  
Human behavior at individual, interpersonal, and group levels including effect of organization structure on behavior. Emphasis on managerial roles, historical evolution of management, ethics, and behavior in multicultural contexts.

MGT 352. Human Resource Management (3)  
Prerequisite: Management 350.  
Acquisition, development, maintenance, and termination of human resources in accordance to goals of the organization.

MGT 356. Social and Ethical Issues in Business (3)  
Prerequisites: Management 350 and Business Administration 300.  
Corporate social responsibility, stakeholder theory, morality of capitalism, and corporate governance. Ethical theory and its application to ongoing issues and current events within the business context.

MGT 357. Multinational Business and Comparative Management (3)  
Prerequisites: Management 350.  
Context of international business, environment, institutions, and business practices. Cultural awareness, sensitivity, interpersonal, and leadership skills needed in an international context.

MGT 401. Business Internship (3) Cr/NC  
Prerequisite: Management 350 and consent of faculty adviser.  
Internship with business firms, nonprofit organizations, or government agencies. Work done under joint supervision of intern organization and course instructor.

MGT 405. International Business Strategy and Integration (3)  
Prerequisites: Management 350, Business Administration 300, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. Proof of completion of prerequisites required: Copy of transcript.  
Integration of business administration principles and concepts for strategy design, implementation, and control in domestic and global markets. Establishment of top management policy emphasized through case studies, experiential exercises, and simulations.

MGT 450. Venture Management (3)  
Prerequisite: Management 350.  
Process of initiating, expanding, purchasing, and consolidating businesses. Concepts, theories, and techniques of managerial innovation and implementation.

MGT 452. Family Business Management (3)  
Prerequisite: Management 350.  
Managing a family owned business. Succession planning, governance, strategy and family dynamics of mixing family and business roles, non-family employees, and culture.

MGT 453. Creativity and Innovation (3)  
Prerequisite: Management 350.  
Managing creativity, including selling creative ideas to others, scanning for new opportunities, taking creativity to the marketplace, and creating an organizational culture for innovation.

MGT 455. Social Entrepreneurship (3)  
Prerequisite: Management 350.  
Entrepreneurial skills to craft innovative responses to social needs. Social mission, launching and building a social venture and developing social returns to an enterprise.

MGT 456. International Entrepreneurship (3)  
Prerequisite: Management 350.  
Launching and managing an international entrepreneurial venture. Search and identification of opportunities in foreign markets, logistics of international business expansion, cross-cultural business communication, and international networking.

MGT 459. Franchise Management (3)  
Prerequisite: Management 350.  
Franchising presented as a viable alternative path to entrepreneurship. Nature and role of franchisor and franchisee including challenges of becoming a franchisee of an existing system and of becoming a franchisor.

MGT 460. Business Plan Development (3)  
Prerequisite: Management 350.  
Core concepts and key elements of producing a business plan for a new entrepreneurial venture or for new business opportunity within an existing organization.

MGT 461. Human Resource Selection (3)  
Prerequisite: Management 352.  
Employee selection and placement issues in organizations including strategic, legal, and measurement issues. Roles of recruitment, job analysis, and human resource planning in human resource selection process.

MGT 462. Compensation (3)  
Prerequisite: Management 352.  
Wage and salary administration in organizations. Determinants of general wage and salary levels and structures. Total compensation systems, interrelationship among employee performance, intrinsic and extrinsic rewards, pay equity, and employee pay satisfaction.

MGT 463. Performance Management (3)  
Prerequisite: Management 352.  
Definition, measurement, and evaluation of employee performance, development of employee skills, and implementation of a performance management system.

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MGT 464. Legal Issues in Human Resources (3)
Prerequisite: Management 352.
Employment law pertaining to human resource management such as selection, compensation, performance appraisal, training, labor relations, and occupational safety and health. Significant court rulings interpreting the law.

MGT 465. Labor Relations (3)
Prerequisite: Management 352.
Employer-employee relationship in unionized settings, labor laws that apply in unionized settings, and an understanding of major components of labor relations; organizing process, negotiation, and contract administration.

MGT 466. International Human Resource Management (3)
Prerequisite: Management 352.
Human resource issue facing multinational corporations including staffing, training and development, performance management, expatriation and repatriation, and compensation.

MGT 467. Diversity Issues (3)
Prerequisite: Management 352.

MGT 475. Leadership in Organizations (3)
Prerequisite: Management 350.
Leadership, communicating vision, initiating changes and innovation, and developing leadership competencies through self-assessment.

MGT 496. Selected Topics in Management (1-4)
Prerequisites: Consent of department chair. Selected areas of concern in management. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

MGT 498. Investigation and Report (1-3)
Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with management under the direction of one or more members of the management staff. May be repeated with new content. Maximum credit six units.

MGT 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

MGT 596. Advanced Topics in Management (3)
Prerequisites: Six upper division units in management.
Advanced special topics in management. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Marketing (MKTG)

In the College of Business Administration

UPPER DIVISION COURSES
(Intended for Undergraduates)

MKTG 370. Marketing (3)
(Summer 2008: One section offered as distance education)
Prerequisites: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Proof of completion of prerequisite required: Change of major form or other evidence of acceptable major code. Marketing majors must complete this course with a minimum grade of C (2.0).

Function of marketing in the organization and in society. Topics include market analysis and consumer behavior, product planning, pricing, promotion, distribution, and international marketing.

MKTG 371. Consumer and Buyer Behavior (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).

Proof of completion of prerequisite required: Copy of transcript.

Psychological, social and cultural aspects of consumers and organizational buyers to understand their needs, wants, preferences, and behaviors. Identify market segments, develop targeted marketing strategies and programs.

MKTG 372. Retail Marketing Methods (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0)

Proof of completion of prerequisite required: Copy of transcript.

Retail store and direct retail marketing organization, site location, personnel, promotion, purchasing, merchandising, inventory, and control methods.

MKTG 373. Integrated Marketing Communications (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).

Proof of completion of prerequisite required: Copy of transcript.

Communication and promotion theory; emphasis on integration of various marketing communications tools including advertising, personal selling, media strategy and tactics, public relations, and publicity strategy, methods, measurement, and ethics.

MKTG 376. Global Marketing Strategy (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).

Proof of completion of prerequisite required: Copy of transcript.

International marketing and trade principles; comparative analysis of economic, political, legal, and sociocultural systems; global market segmentation and market entry strategies, international pricing, distribution systems, advertising, public relations, and promotion strategies; product standardization vs. localization.

MKTG 377. Selling Strategy and Practices (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).

Proof of completion of prerequisite required: Copy of transcript.

Selling strategy and practices as an integral part of the total marketing system, including territory management, consultative selling, negotiation, and system selling.

MKTG 470. Marketing Research (4)
Prerequisites: Completion of lower division courses in the major or minor. A minimum grade of C (2.0) in Information and Decision Systems 301 and Marketing 370.

Proof of completion of prerequisites required: Copy of transcript.

Marketing research process; research design, instrument development, measurement and scaling, sampling, primary and secondary data analysis, and research reporting for marketing decisions.

MKTG 472. Advanced Integrated Marketing Communications (4)
Prerequisites: Marketing 373 with minimum grade of C; Marketing 371 and 470 with minimum grade of C or an average of 2.0 in both courses.

Proof of completion of prerequisites required: Copy of transcript.

Management of marketing communications function with emphasis on integration and coordination of all activities. Planning, implementation, and coordination of marketing communications activities. Development, implementation, and program evaluation of an integrated marketing communications project.
MKTG 473. Sales Management (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).
Proof of completion of prerequisite required: Copy of transcript.
Management of recruitment, training, motivation, and compensation of a sales force, and evaluation, control, and organization of sales personnel.

MKTG 474. Business Marketing (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).
Proof of completion of prerequisite required: Copy of transcript.
Marketing practices and strategy designed for organizational customers; focuses on purchasing practices of organizational customers and development of marketing mixes for private, commercial, institutional, and governmental markets, both domestic and global.

MKTG 475. Global Marketing Applications (4)
Prerequisites: Marketing 376 with a minimum grade of C (2.0).
Applying global marketing concepts to conduct detailed market analysis through collecting demographic, cultural, political, legal, economic, financial data; developing international marketing plan focused on one world region for company with international entry, global marketing strategy issues. Region of focus varies.

MKTG 476. Internet/Interactive Marketing (4)
Prerequisites: Marketing 370 with a minimum grade of C (2.0).
Proof of completion of prerequisite required: Copy of transcript.
Marketing and communication in digital networked environments. Intersection of business issues, marketing programs, and interactive technology. Web site design and evaluation, e-commerce, online customer experience, search engine optimization, personalization, online advertising and mobile marketing.

MKTG 477. Marketing Consulting for Small Business (4)
Prerequisites: Marketing 370 with a minimum grade of C, senior standing, and consent of instructor.
Marketing planning and program development for small entrepreneurial business. Consulting with small business clients on marketing strategy and implementation including marketing research, market segmentation, target marketing, advertising and promotion, pricing, marketing planning and program evaluation.

MKTG 479. Strategic Marketing Management (4)
Prerequisites: Marketing 371 and 470 with a minimum grade of C (2.0) or an average of 2.0 in both courses. Completion of lower division courses required in the major or minor. Proof of completion of prerequisites required: Copy of transcript.
Strategic planning, integration, management, and control of the marketing functions and mix; applying decision techniques for marketing problem solution.

MKTG 496. Selected Topics in Marketing (1-4)
Prerequisites: Consent of department chair.
Selected areas of concern in marketing. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

MKTG 498. Investigation and Report (1-3)
Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with marketing under the direction of one or more members of the marketing staff. May be repeated with new content. Maximum credit six units.

MKTG 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Mathematics (MATH)
In the Department of Mathematics and Statistics
In the College of Sciences

LOWER DIVISION COURSES

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Mathematics 118, 120, 121, 122, 141, 150, 210, 211: Copy of ELM score or verification of exemption.

MATH 105. College Algebra (3) [GE]
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.
Real numbers, graphs, theory of functions, sinusoidal equations, and their applications to science. Excel and Maple programming. Not open to students with credit in Mathematics 121 or 141.

MATH 118. Topics in Mathematics (3) [GE]
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.
Topics selected from algebra, analysis, geometry, logic, probability, or statistics, designed to give student insight into structure of mathematical theories and their applications.

MATH 120. Calculus for Business Analysis (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.

MATH 121. Calculus for the Life Sciences I (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and IIA examination, or Mathematics 105, or 141 with a grade of C (2.0) or better.
Basic concepts of differential calculus with life science applications. Not intended for physical science or engineering majors. Not open to students with credit in Mathematics 150.

MATH 122. Calculus for the Life Sciences II (3) [GE]
Two lectures and two hours of activity.
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; qualification on the Mathematics Departmental Placement Examination; and Mathematics 121.
A continuation of Mathematics 121 with topics from integral calculus and an introduction to elementary differential equations. Not open to students with credit in Mathematics 150.

MATH 141. Precalculus (3) [GE]
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.
Real numbers, inequalities; polynomials; rational, trigonometric, exponential and logarithmic functions; conic sections. Not open to students with credit in Mathematics 105 or 121 or 150.

MATH 150. Calculus I (4) [GE]
Prerequisites: Knowledge of algebra, geometry, and trigonometry as demonstrated by either (1) satisfactory completion of Mathematics 141 with a grade of C (2.0) or above; or (2) satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Precalculus Proficiency Examination. Proof of completion of prerequisites required.
Algebraic and transcendental functions. Continuity and limits. The derivative and its applications. The integral and the fundamental theorem of calculus.

MATH 151. Calculus II (4) [GE]
Prerequisites: Mathematics 150 with minimum grade of C. Proof of completion of prerequisite required.
MATH 210. Number Systems in Elementary Mathematics (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.
Number sense, operation concepts, estimation, mental arithmetical algorithms, problem solving, whole, rational, real numbers, ratio, and number theory.

MATH 211. Geometry in Elementary Mathematics (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and Mathematics 210.
Two and three dimensional shapes and interrelationships, congruence, similarity and proportional reasoning, measurement of length, angle size, area, volume, metric system, and problem solving.

MATH 215. Mathematics Placement Examination: Part LS
Prerequisites: Score of 12 or lower on either section of Mathematics Placement Examination: Part LS.
Required review for students who have failed Mathematics Placement Examination: Part LS. Basic numbers (quantities, number systems, basic computations with integers and fractions), measurement and geometry (two- and three-dimensional objects, measurements, and measure systems).

MATH 219. Mathematics Placement Examination: Part LS
Prerequisites: Mathematics Placement Examination: Part LS. Basic numbers (quantities, number systems, basic computations with integers and fractions), measurement and geometry (two- and three-dimensional objects, measurements, and measure systems).

MATH 241. Mathematics Software Workshop (1)
(Selected sections offered as distance education)
Prerequisites: Mathematics 151.
Introduction to mathematical software environment such as MATLAB, MAPLE, MATHEMATICA or the Geometers Sketchpad. May be repeated for credit with different software. See Class Schedule for specific content. Maximum credit two units.

MATH 242. Mathematical Programming (3)
Prerequisite: Mathematics 122 or 151.
Rudiments of programming mathematical and scientific problems on various platforms which include: EXCEL, Matlab, and Maple.

MATH 245. Discrete Mathematics (3) [GE]
Logic, methods of proof, set theory, number theory, equivalence and order relations, counting (combinations and permutations), solving recurrence relations.

MATH 252. Calculus III (4) [GE]
Prerequisites: Mathematics 151 with minimum grade of C.
Functions of several variables. Vectors. Partial derivatives and multiple integrals. Line integrals and Green’s Theorem.

MATH 254. Introduction to Linear Algebra (3) [GE]
Prerequisites: Mathematics 151.
Introduction to mathematical software environment such as MATLAB, MAPLE, MATHEMATICA or the Geometers Sketchpad. May be repeated for credit with different software. See Class Schedule for specific content. Maximum credit two units.

MATH 299. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

MATH 302. Transition to Higher Mathematics (3)
Prerequisites: Mathematics 150.
Selected topics in mathematics to emphasize proof writing and problem solving. Intended for those planning to teach secondary school mathematics.

MATH 303. History of Mathematics (3) [GE]
Prerequisites: Mathematics 141 or students using course to satisfy General Education must complete the General Education requirement in Foundations IIA., Natural Sciences and Quantitative Reasoning.
Major currents in the development of mathematics from ancient Egypt and Babylon to late nineteenth century Europe.

MATH 311. Statistics and Probability in Elementary Mathematics (2)
Prerequisites: Mathematics 211 and satisfactory performance on Mathematics Departmental Placement Examination, Part LS.
Topics from statistics and probability. Enrollment limited to liberal studies majors. Not open to students with credit in Mathematics 312.

MATH 312. Topics from Elementary Mathematics I (3)
Prerequisites: Mathematics 211 and satisfactory performance on Mathematics Departmental Placement Examination, Part LS.
Topics from statistics and probability. Enrollment limited to future teachers in grades K-8. Not open to students with credit in Mathematics 311.

MATH 313. Selected Topics in Elementary Mathematics (3)
Prerequisites: Mathematics 311 or 312.
Capstone course for prospective K-8 teachers. Advanced topics in mathematics selected from algebra, number systems, transformation geometry, and problem solving. Enrollment limited to future teachers in grades K-8.

MATH 315. Special Topics in Algebra, Geometry, and Problem Solving (2)
Prerequisites: Mathematics 210, 211, 311.
Capstone course for prospective elementary teachers to include algebra (describing change), geometry (rigid motions), and non-routine problem solving.

MATH 336. Introduction to Mathematical Modeling (3)
Prerequisites: Mathematics 254.
Models from the physical, natural, and social sciences including population models and arms race models. Emphasis on classes of models such as equilibrium models and compartment models.

MATH 337. Elementary Differential Equations (3)
Prerequisites: Mathematics 254 or 342A.
Integration of first-order differential equations, initial and boundary value problems for second-order equations, series solutions and transform methods, regular singularities.

MATH 342B. Methods of Applied Mathematics II (3)
Prerequisites: Mathematics 252.
Vector analysis, divergence and Stokes' theorem and related integral theorems. Matrix analysis, eigenvalues and eigenvectors, diagonalization. Introduction to ordinary differential equations. Computer software packages for matrix applications, solving, and graphing differential equations. Not open to students with credit in Physics 340A.

MATH 342B. Methods of Applied Mathematics II (3)
Prerequisites: Mathematics 342A with minimum grade of C.

MATH 413. Mathematics for the Middle Grades (3)
Prerequisites: Senior standing and Mathematics 312.
Teacher-level look at mathematics taught in middle grades, to include proportional reasoning, rational and real numbers, probability, and algebra. Intended for those planning to teach mathematics in middle grades; cannot be used as part of major or minor in mathematical sciences with exception of major for single subject teaching credential. Students in the SSTC major must receive instructor permission.

MATH 496. Experimental Topics (1-4)
(Selected sections offered as distance education)
Prerequisites: Mathematics 311.
Selected topics in mathematics to emphasize proof writing and problem solving. Enrollment limited to future teachers in grades K-8. Not open to students with credit in Mathematics 311.

MATH 596. Experimental Topics (1-4)
(Selected sections offered as distance education)
Prerequisites: Mathematics 311.
Selected topics in mathematics to emphasize proof writing and problem solving. Enrollment limited to future teachers in grades K-8. Not open to students with credit in Mathematics 311.

MATH 599. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

MATH 342A. Methods of Applied Mathematics I (3)
Prerequisites: Mathematics 252.
Vector analysis, divergence and Stokes’ theorem and related integral theorems. Matrix analysis, eigenvalues and eigenvectors, diagonalization. Introduction to ordinary differential equations. Computer software packages for matrix applications, solving, and graphing differential equations. Not open to students with credit in Physics 340A.
MATH 414. Mathematics Curriculum and Instruction (3)
    Prerequisites: Senior standing and 12 upper division units in mathematics.
    Historical development of mathematics and mathematics curriculum. Principles and procedures of mathematics instruction in secondary schools. For secondary and postsecondary teachers and teacher candidates. Course cannot be used as part of the major or minor in mathematical sciences with exception of major for the single subject teaching credential.

MATH 496. Experimental Topics (1-4)
    Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

MATH 499. Special Study (1-3)
    Prerequisites: Consent of instructor.
    Individual study. Maximum credit six units.

UPPER DIVISION COURSES
    (Also Acceptable for Advanced Degrees)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

MATH 509. Computers in Teaching Mathematics (3)
    Two lectures and three hours of laboratory.
    Prerequisites: Mathematics 252. Solving mathematical tasks using an appropriate computer interface, and problem-based curricula. Intended for those interested in mathematics teaching.

MATH 510. Introduction to the Foundations of Geometry (3)
    Prerequisites: Mathematics 122 or 151.
    The foundations of Euclidean and hyperbolic geometries. Highly recommended for all prospective teachers of high school geometry.

MATH 511. Projective Geometry (3)
    Prerequisites: Mathematics 254.
    Geometry emphasizing relationships between points, lines, and conics. Euclidean geometry and some non-Euclidean geometries as special cases of projective geometry.

MATH 521A. Abstract Algebra (3)
    Prerequisites: Mathematics 245 and 254.
    Abstract algebra, including elementary number theory, groups, and rings.

MATH 521B. Abstract Algebra (3)
    Prerequisites: Mathematics 251A.
    Continuation of Mathematics 521A. Rings, ideals, quotient rings, unique factorization, noncommutative rings, fields, quotient fields, and algebraic extensions.

MATH 522. Number Theory (3)
    Prerequisite: Mathematics 245.
    Theory of numbers to include congruences, Diophantine equations, and a study of prime numbers; cryptography.

MATH 523. Mathematical Logic (3)
    Prerequisites: Mathematics 245.
    Propositional logic and predicate calculus. Rules of proof and models. Completeness and the undecidability of arithmetic. Not open to students with credit in Philosophy 521.

MATH 524. Linear Algebra (3)
    Prerequisites: Mathematics 245 and 254; or 342A.
    Vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors, normal forms for complex matrices, positive definite matrices and congruence.

MATH 525. Algebraic Coding Theory (3)
    Prerequisites: Mathematics 254.
    Linear codes, perfect and related codes, cyclic linear codes, BCH codes, burst error-correcting codes.

MATH 528. Information Theory and Data Compression (3)
    Prerequisites: Mathematics 245 and 254.
    Fundamental of discrete probability and information theory; joint and conditional distributions, Bayes’ theorem, entropy, channel capacity. Noiseless coding theorem and data compression algorithms: Huffman codes, arithmetic coding, Ziv-Lempel codes. Information theory in error correction coding and cryptography.

MATH 531. Partial Differential Equations (3)
    Prerequisites: Mathematics 252 and 337.

MATH 532. Functions of a Complex Variable (3)
    Prerequisites: Mathematics 252.
    Analytic functions, Cauchy-Riemann equations, theorem of Cauchy. Laurent series, calculus of residues, and applications.

MATH 533. Vector Calculus (3)
    Prerequisites: Mathematics 254 or 342A.
    Scalar and vector fields; gradient, divergence, curl, line and surface integrals: Green’s, Stokes’ and divergence theorems. Green’s identities. Applications to potential theory or fluid mechanics or electromagnetism.

MATH 534A. Advanced Calculus I (3)
    Prerequisites: Mathematics 254 and 254; or 342A.
    Completeness of the real numbers and its consequences, sequences of real numbers, continuity, differentiability and integrability of functions of one real variable.

MATH 534B. Advanced Calculus II (3)
    Prerequisites: Mathematics 534A.
    Series and sequences of functions and their applications, functions of several variables and their continuity, differentiability and integrability properties.

MATH 537. Ordinary Differential Equations (3)
    Prerequisites: Mathematics 337.
    Theory of ordinary differential equations: existence and uniqueness, dependence on initial conditions and parameters, linear systems, stability and asymptotic behavior, plane autonomous systems, series solutions at regular singular points.

MATH 538. Discrete Dynamical Systems and Chaos (3)
    Prerequisites: Minimum grade of C in Mathematics 151; Mathematics 254 or 342A, 342B.
    One- and two-dimensional iterated maps, equilibria and their stability, sensitive dependence on initial conditions, Lyapunov exponents, horseshoe maps, period doubling, chaotic attractors, Poincare maps, stable/unstable manifolds, bifurcations. Applications in biology, chemistry, physics, engineering, and other sciences.

MATH 541. Introduction to Numerical Analysis and Computing (3)
    Prerequisites: Mathematics 254 or 342A; and Computer Science 106 or 107 or 205.
    Solution of equations of one variable, direct methods in numerical linear algebra, least squares approximation, interpolation and uniform approximation, quadrature.

MATH 542. Introduction to Numerical Solutions of Differential Equations (3)
    Prerequisites: Mathematics 337 and 541.

MATH 543. Numerical Matrix Analysis (3)
    Prerequisites: Mathematics 541.
MATH 544. Computational Finance (3)
Prerequisites: Statistics 550 or 551A.

MATH 561. Applied Graph Theory (3)
Prerequisites: Mathematics 245 or 254.
Undirected and directed graphs, trees, Hamiltonian circuits, classical problems of graph theory including applications to linear systems.

MATH 562. Mathematical Methods of Operations Research (3)
Prerequisites: Mathematics 252 and 254.
Theory and applications concerned with optimization of linear and non-linear functions of several variables subject to constraints, including simplex algorithms, duality, applications to game theory, and descent algorithms.

MATH 570. Discrete Mathematics (3)
Prerequisites: Mathematics 245.
Set theory, graphs, trees, relations, equivalence, partial order, permutations and combinations, recurrence relations, generating functions, asymptotic analysis, and connections to analysis.

MATH 571. Analysis of Algorithms (3)
Prerequisites: Mathematics 245 or 254.
Complexity of algorithms; asymptotic notation, growth of functions, algorithm design and analysis, lower bounds, decision trees.

MATH 579. Combinatorics (3)
Prerequisites: Mathematics 245.
Permutations, combinations, generating functions, recurrence relations, inclusion-exclusion counting. Polya’s theory of counting, other topics and applications.

MATH 580. Risk Management: Stocks and Derivative Securities (3)
Prerequisites: Mathematics 550 or 551A.
Theory of derivative securities with focus on evolution of stock prices and pricing of options.

MATH 581. Risk Management: Portfolio Selection and Other Features of Finance Markets (3)
Prerequisites: Mathematics 550 or 551A.
Derivatives and term structures, method of principal components, theory of portfolio optimization, some numerical methods.

MATH 596. Advanced Topics in Mathematics (1-4)
Prerequisites: Consent of instructor.
Selected topics in classical and modern mathematical sciences.

MATH 501A. Reasoning: Place Value and Arithmetic Operations (1)
Prerequisites: Teaching credential and consent of instructor.
Place value and its role in development and understanding of arithmetic operations, to include number systems, student methods, standard algorithms, and mental computation. (Formerly numbered Mathematics 281A.)

MATH 501B. Reasoning: Rational Numbers and Real Number Systems (1)
Prerequisites: Teaching credential and consent of instructor.
Rational numbers and structure of real number system, to include meanings and models for fractions with attention to operations on rational numbers. (Formerly numbered Mathematics 281B.)

MATH 502A. Reasoning: Geometry (1)
Prerequisites: Teaching credential and consent of instructor.
Geometry to include classification and representation of polyhedra, hierarchical relationships among quadrilaterals, symmetry and transformations in the plane. (Formerly numbered Mathematics 281B.)

MATH 502B. Reasoning: Measurement (1)
Prerequisites: Teaching credential and consent of instructor.
Key ideas of measurement, development of area formulas for two-dimensional figures, size changes, and similarity. (Formerly numbered Mathematics 281B.)

MATH 503A. Reasoning: Foundations of Quantitative Thinking (1)
Prerequisites: Teaching credential and consent of instructor.
Reasoning about quantities and their measurement and relationships among these quantities, to include representations of these relationships. Understand situations that call for additive or multiplicative reasoning; important role of these ideas in development of quantitative reasoning skills in primary grades. (Formerly numbered Mathematics 381.)

MATH 503B. Reasoning: Foundations of Algebraic Thinking (1)
Prerequisites: Teaching credential and consent of instructor.
Pattern searching, equivalence, making and justifying conjectures. Preparation for teaching California required K-12 algebraic reasoning strand. (Formerly numbered Mathematics 382.)

MATH 504A. Reasoning: Quantities and Mathematical Relationships (1)
Prerequisites: Teaching credential and consent of instructor.
Reasoning about measurable characteristics in problem context, and relationships among these measurements. Additive, multiplicative, and proportional reasoning in middle grades. (Formerly numbered Mathematics 383.)
MATH 504B. Reasoning: Algebra and Nature of Change (1)
Prerequisites: Teaching credential and consent of instructor.
Pattern searching, generalizing, graphing to represent quantitative relationships, and role of these topics in preparing elementary and middle school students for algebra. (Formerly numbered Mathematics 384.)

MATH 505A. Reasoning: Probability (1)
Prerequisites: Teaching credential and consent of instructor.
Probabilistic situations, theoretical probabilities, and expected values. (Formerly numbered Mathematics 386.)

MATH 505B. Reasoning: Statistics (1)
Prerequisites: Teaching credential and consent of instructor.
Gathering, representing, and interpreting data sets, measures of central tendency, and characteristics of normal distributions. (Formerly numbered Mathematics 385.)

UPPER DIVISION COURSES (MTHED)
(Also Acceptable for Advanced Degrees)

MTHED 502. Technology in Teaching and Learning
Mathematics: Grades K-8 (3)
Prerequisites: Classified graduate standing; consent of instructor for undergraduates.
Research in use of technology in learning and teaching mathematics in grades K-8. Major focus devoted to use of applications. Other uses for technology addressed include simulations, communication, and computational speed.

MTHED 571. Children’s Mathematics Understanding in Primary Grades (Part I) (1-3)
Prerequisites: Admission to mathematics specialist certificate program.
Ongoing assessment and instructional decision-making for increasing children’s achievement and understanding of number, operations, and algebra in the primary grades. Maximum credit three units.

MTHED 572. Children’s Mathematics Understanding in Primary Grades (Part II) (1-3)
Prerequisites: Admission to mathematics specialist certificate program.
Ongoing assessment and instructional decision-making for increasing children’s achievement and understanding of rational numbers, geometry, and measurement in the primary grades. Maximum credit three units.

MTHED 573. Children’s Mathematics Understanding in Upper Elementary Grades (Part I) (1-3)
Prerequisites: Admission to mathematics specialist certificate program.
Ongoing assessment and instructional decision-making for increasing children’s achievement and understanding of number, operations, and algebra in the upper elementary grades. Maximum credit three units.

MTHED 574. Children’s Mathematics Understanding in Upper Elementary Grades (Part II) (1-3)
Prerequisites: Admission to mathematics specialist certificate program.
Ongoing assessment and instructional decision-making for increasing children’s achievement and understanding of rational numbers, geometry and measurement in the upper elementary grades. Maximum credit three units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Mechanical Engineering (M E)

In the College of Engineering

LOWER DIVISION COURSES

M E 101. Solid Modeling I (2)
Six hours of laboratory.
Computer-aided solid modeling, including engineering documentation, dimensioning and tolerancing per ASME Y14.5M-1994. Elementary sketching and dimensioning of orthographic and pictorial drawings and sections. (Formerly numbered Engineering 190.)

M E 102. Solid Modeling II (2)
Six hours of laboratory.
Prerequisites: Mechanical Engineering 101.
Continuation of computer-aided solid modeling and engineering documentation with geometric tolerancing, thread, and thread notations per ASME Y14.5M-1994. Finite element analysis (FEA) of mechanical components. (Formerly numbered Engineering 195.)

M E 203. Computer Programming and Applications (2)
Six hours of activity.
Prerequisites: Mechanical Engineering 101 and Mathematics 151. Recommended: Mechanical Engineering 102.
Principles of programming using C and Java. Graphical programming using Labview. Topics include data types, loops, control flow, arrays, memory acquisition, data structures. Applications related to mechanical system components. (Formerly numbered Mechanical Engineering 290.)

M E 240. Introduction to Engineering Materials (3)
Atomic and molecular structure of materials utilized in engineering. Analysis of the relationships between structure of materials and their mechanical, thermal, electrical, corrosion, and radiation properties. Examples of material structure relevant to civil, electrical, aerospace, and mechanical engineering applications. (Formerly numbered Mechanical Engineering 260.)

M E 241. Materials Laboratory (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Mechanical Engineering 240.
Experimental methods used to characterize engineering materials and their mechanical behavior.

M E 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript is acceptable as proof. In addition, Mechanical Engineering 351, 490A, and 530 require evidence of concurrent registration in appropriate courses.

M E 310. Engineering Design: Introduction (3)
Two lectures and three hours of guided design activities.
Prerequisites: Mechanical Engineering 102, 203, and Engineering Mechanics 220. Every mechanical engineering student must have a master plan on file before enrolling in Mechanical Engineering 310.
Professional approach to engineering design problems. Problem definition, information gathering, feasibility studies, analysis, final design and communication. Several design studies and projects are completed.
M E 312. Simulation of Engineering Systems (3)
Prerequisites: Mechanical Engineering 203, 350; Civil Engineering 301; Electrical Engineering 204; Engineering 280; Engineering Mechanics 340.
Modeling, simulation, and analysis of various mechanical systems: dynamic, vibrational, electromechanical, thermodynamic, and fluidic. Circuits for monitoring and controlling mechanical systems. (Formerly numbered Mechanical Engineering 512.)

M E 314. Engineering Design: Mechanical Components (3)
Prerequisites: Mechanical Engineering 102, 203, and Civil Engineering 301.
Application of mechanics, physical properties of materials, and solid mechanics to the design of machine elements. Student design projects.

M E 330. Control Systems Laboratory (3)
Two lectures and three hours of laboratory.
Prerequisites: Mechanical Engineering 203, Electrical Engineering 204; Engineering 280; Engineering Mechanics 220, 340; Linguistics 200 or Rhetoric and Writing Studies 200.
Control theory (e.g., stability, feedback, PID control) with applications in microprocessor-based control of dynamic, vibrational, and mechatronic systems. "Bread-boarding" and BASIC programming of microcontrollers and graphical programming of PC-based controller interfaces.

M E 340. Materials, Manufacturing, and Design (3)
Prerequisites: Mechanical Engineering 240, 241; Civil Engineering 301.
Fabrication and thermomechanical processing effects on properties and service behavior of engineering materials. Fracture mechanics and materials behavior under a range of design conditions. Design criteria for engineering materials including fatigue and creep. Case studies and failure analysis techniques.

M E 350. Thermodynamics (3)
Prerequisites: Mathematics 252 and Engineering Mechanics 200.
Basic concepts and principles of thermodynamics with emphasis on simple compressible substances. First and second law analysis, entropy, exergy analysis and state relations.

M E 351. Engineering Thermodynamics (3)
Prerequisites: Mechanical Engineering 350 and credit or concurrent registration in Engineering Mechanics 340.
Analysis and design of gas and vapor power cycles, and refrigeration systems. Generalized property relations for gases and gas-vapor. Air-conditioning, Combustion and chemical equilibrium. Design of engineering systems and processes. (Formerly numbered Mechanical Engineering 450.)

M E 352. Thermodynamics and Heat Transfer (3)
Prerequisites: Engineering Mechanics 200 and Mathematics 252.
First and second laws of thermodynamics; heat conduction, convection and radiation. Not acceptable for mechanical engineering majors.

M E 452. Principles of Heat Transfer (3)
Analytical and numerical solutions of steady and transient one- and two-dimensional conduction problems, forced and natural convection in external and internal flows, and thermal radiation. Applications. (Formerly numbered Mechanical Engineering 470.)

M E 340A-340B. Engineering Design: Senior Project (2-2)
Six hours of guided design activities.
Prerequisites for 340A: Mechanical Engineering 310, 312, 314, 330, 340, 351, 452. Biology students enrolling in this course must have completed Biology 366, Civil Engineering 301, Electrical Engineering 204, Mechanical Engineering 352, and have credit or concurrent registration in Biology 590.
Applications of engineering principles and design techniques to the designing, building, and testing of an engineering system. A single project is completed in this two-course sequence and is judged completed upon presentation of an oral and a written report. In addition, issues related to ethics and engineering practice are discussed.

M E 345. Mechanical and Thermal Systems Laboratory (2)
One lecture and three hours of laboratory.
Prerequisites: Mechanical Engineering 310, 330, 351, 452.
Data acquisition theory, instrumentation, sensors, data reduction, statistical and uncertainty analysis, and design of experiments. Experience in designing, performing, and reporting experiments on mechanical and thermal systems, mechanisms, vibrations, structures, thermodynamics, heat transfer.

M E 346. Advanced Mechanical Engineering Topics (1-3)
Prerequisites: Consent of instructor. Proof of completion of prerequisite required: Copy of transcript.
Modern developments in mechanical engineering. See Class Schedule for specific content. Maximum credit nine units for any combination of Mechanical Engineering 496, 499 and 596.

M E 499. Special Study (1-3)
Prerequisites: Consent of instructor. Proof of completion of prerequisite required: Copy of transcript.
Individual study. Maximum credit nine units for any combination of Mechanical Engineering 496, 499 and 596.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)
NOTE: Proof of Completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript. In addition, Mechanical Engineering 351, 490A, and 530 require evidence of concurrent registration in appropriate courses.

M E 502. Continuum Mechanics (3)
Prerequisites: Civil Engineering 301 and Engineering Mechanics 340.
Mechanics of continua, stress tensor, deformation and flow, constitutive relations. Applications to common solids and fluids

M E 514. Advanced Machine Design (3)
Prerequisites: Mechanical Engineering 314 and 340.
Application of advanced mechanics of materials to design and analysis of mechanical elements. Probabilistic design and finite element methods and applications. Design projects involve extensive use of finite element programs. (Formerly numbered Mechanical Engineering 510.)

M E 520. Introduction to Mechanical Vibrations (3)
Prerequisites: Mechanical Engineering 312 and Civil Engineering 301.
Analysis of mechanical vibration; single- and multi-degree of freedom systems; free and forced vibrations; vibration isolation; vibration absorbers. Theory of vibration measuring instruments.

M E 530. Automatic Control Systems (3)
Prerequisites: Mechanical Engineering 312.
Dynamic characteristics of control components and systems. Stability and response of closed loop systems. Design of control systems.
M E 540. Nonmetallic Materials (3)
Prerequisites: Mechanical Engineering 314 and 340.

M E 542. Manufacturing with Nonmetallic Materials (3)
Prerequisites: Mechanical Engineering 340 and Engineering 280 with a grade of C or better.
Introduction to manufacturing polymers and composites, processes, and manufacturing techniques. Polymer flow in extrusion, compression molding, RTM, and calendaring. Hands-on fabrication and test exercises included along with a capstone manufacturing project.

M E 543. Powder-Based Manufacturing (3)
Prerequisite: Mechanical Engineering 340.
Manufacturing of micro and nano-structured engineering components and composites starting with metal and/or ceramic powders. Powder production methods, characterization, powder shaping and compaction, sintering, hot consolidation, design considerations, and finishing operations.

M E 546. Computer Aided Manufacturing (3)
Prerequisites: Mechanical Engineering 102, 314, 340; and Engineering 280 with a grade of C or better.
Computer controlled manufacturing and assembly techniques and devices. Databases and special languages. Agile manufacturing soft ware programs and technologies.

M E 552. Heating, Ventilating, and Air-Conditioning (3)
Prerequisites: Mechanical Engineering 351 and 452.

M E 555. Thermal Systems Analysis and Design (3)
Prerequisites: Mechanical Engineering 351 and 452.
Analysis, design, and optimization of thermal systems using microcomputers. Modeling of thermal systems and components. Thermal system component characteristics and their effect on overall system performance. Relationship among thermal sciences in design process. Introduction to thermo-economic optimization. (Formerly numbered Mechanical Engineering 570.)

M E 556. Solar Energy Conversion (3)
Prerequisites: Engineering Mechanics 340, Mechanical Engineering 351 and 452.

M E 580. Biomechanics (3)
Prerequisites: Civil Engineering 301 and Engineering Mechanics 340.
Application of engineering methodologies for quantitative understanding of biological/physiological phenomena. Continuum mechanics principles. Cardiovascular system and its components viewed from a mechanistic standpoint. (Formerly numbered Mechanical Engineering 590.)

One lecture and four hours of laboratory.
Microfabrication techniques, microsensors and microactuators, and scaling laws. A design project of a micro-device including schematic creation, test of performance, layout generation, and layout versus schematic comparison. (Formerly numbered Engineering Mechanics 585.)

M E 596. Advanced Mechanical Engineering Topics (1-3)
Prerequisites: Consent of instructor. Proof of completion of prerequisite required: Copy of transcript.
Modern developments in mechanical engineering. May be repeated with new content. See Class Schedule for specific content. Maximum credit of six units for any combination of Mechanical Engineering 496, 499 and 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Military Science (MIL)

In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

MIL S 96. Leadership Laboratory (1) Cr/NC
Application of individual skills and military tasks appropriate to a small unit leader. Prepares cadets for higher level leadership positions. Emphasis is on performance in leader roles which includes instruction. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

MIL S 101. Leadership and Personal Development (3)
Structure, organization, and missions of US Army. Preparation and development for officer status. (Formerly numbered Military Science 100A.)

MIL S 102. Introduction to Tactical Leadership (3)
Officer leadership, development, and functions. Emphasizing command responsibilities for basic foundation of officer fundamentals. (Formerly numbered Military Science 100B.)

MIL S 201. Innovative Team Leadership (3)
Scientific approach to leadership theory and its applicability to military settings through study of human behavior and leadership models at individual and group levels using simulations, case studies, and diagnostic instruments. (Formerly numbered Military Science 210.)

MIL S 202. Foundations of Tactical Leadership (3)
Leadership at organizational level with application to military settings with emphasis on developing leader skills and examination of theories and concepts of civil-military relations, using simulations, case studies, and diagnostic instruments. (Formerly numbered Military Science 211.)

MIL S 221. Cadet Basic Field Training (3)
Prerequisites: Sophomore standing.
Five-week field training with training in structure, organization, and missions of the US Army; officer leadership, development, and responsibilities; basic military skills; personal conditioning; oral and written military communications.

MIL S 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

MIL S 299. Special Study (1-4)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

MIL S 301. Adaptive Tactical Leadership (3)
Prerequisites: Equivalent of two-year basic course program.
Techniques and skills required of military leaders. Military methods of instruction, review of essential map reading skills and case studies of military leadership techniques.
MIL S 302. Leadership in Changing Environments (3)
Prerequisites: Equivalent of two-year basic course program.
Current tactical doctrine and military techniques of planning and coordination
required to apply doctrine to small unit operations.

MIL S 401. Developing Adaptive Leaders (3)
Prerequisites: Military Science 301 and 302.
Leadership and management problems encountered in a mid-level sized organization. Role of junior officer. Prepares senior cadets for positions as leaders and managers of resources at platoon/company level. (Formerly numbered Military Science 410.)

MIL S 402. Leadership in a Complex World (3)
Prerequisites: Military Science 301 and 302.
Military justice system as it has evolved from international law principles and established national security policies. History of military law, philosophy and structure of system to include court-martial ethics and decision-making. (Formerly numbered Military Science 411.)

MIL S 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 496, 497, 596 courses applicable to a bachelor’s degree.

MIL S 499. Special Study (1-3)
Prerequisites: Consent of department chair.
Individual study. Maximum credit six units.

Music (MUSIC)

In the School of Music and Dance
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

MUSIC 101. Recitals (1) Cr/NC
Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

MUSIC 102. Basic Musicianship for Non-Music Majors (3)
Rudimentary music theory involving the elements of music: melody, rhythm, and harmony. Developing the understanding of these elements through instrumental and vocal experiences which include the use of unison and part-singing, the keyboard, and simple melodic and harmonic instruments. For liberal studies and preservice teachers. Not open to students with credit in Music 105A or 105B.

MUSIC 104. Music Technology (1)
Two hours of activity.
Current technology in music composition, ear-training, score preparation, performance and research practices. Open to music majors and minors only. Not open to students with credit in Music 204.

MUSIC 105A. Introduction to Elements of Music (3)
Prerequisites: Consent of instructor.
Music from aesthetic, communicative, theoretical, and creative perspective. Development of understanding of aesthetic valuing, musical notation, rhythm, theory, pitch, aural skills, and musical terminology. Not open to students with credit in Music 102. (Formerly numbered Music 105.)

MUSIC 105B. Introduction to Elements of Music (3)
Prerequisites: Music 105A.
Continuation of Music 105A. Not open to students with credit in Music 102.

MUSIC 110A-110B. Piano - Elementary Class Instruction (1-1)
Two hours.
Prerequisites: For 110B: Music 110A with a grade of C (2.0) or better. Basic keyboard experience through study of music reading, notation, scales, chords, and sight-reading covering a repertoire of beginning and intermediate songs and piano literature, with emphasis on keyboard harmony. Required of music majors and minors and credential candidates for teaching at the kindergarten-primary level. Music 110A not open to students with credit in Music 110B, 210A, 210B. Music 110B not open to students with credit in Music 210A or 210B.

MUSIC 110. Piano - Elementary Class Instruction (1-1)
Two hours.
Prerequisites: For 110B: Music 110A with a grade of C (2.0) or better. Basic keyboard experience through study of music reading, notation, scales, chords, and sight-reading covering a repertoire of beginning and intermediate songs and piano literature, with emphasis on keyboard harmony. Required of music majors and minors and credential candidates for teaching at the kindergarten-primary level. Music 110A not open to students with credit in Music 110B, 210A, 210B. Music 110B not open to students with credit in Music 210A or 210B.

MUSIC 151. Introduction to Music (3) [GE]
Elements of music as exemplified by works representing different areas, cultures, styles, and forms. See Class Schedule for specific content.

MUSIC 160. Introduction to Electro-Acoustic Music (2)
Prerequisites: Consent of instructor.
One lecture and two hours of activity.
Historical overview of electro-acoustic music with hands-on introduction to analog multi-trade recording/mixing, digital sequencing with emphasis on shared lineage of classical and popular idioms.

MUSIC 161. Music and Dance of Africa (1)
Two hours of activity.
Study and performance of African music and dance with attention to both historical/cultural elements and music performance.

MUSIC 166. Elements of Jazz I (2)
Fundamental harmonic analysis of basic jazz progressions, common modes and blues scale variations, solo transcription analysis, and ear-training.

Performance Organization Courses
(MUSIC 170 through 189)
The performance organization courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble and designed to provide students with practical experience in rehearsal techniques.

MUSIC 170. Chamber Music (1)
Three hours. Four hours for opera.
Prerequisites: Consent of instructor.
Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

MUSIC 174. Concert Band (1)
Five hours.
Prerequisites: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 175. Marching Band (2)
Prerequisites: Consent of instructor.
More than six hours.
Study and public performance of literature for the ensemble. Practical experience in rehearsal techniques. Maximum combined credit for Music 175 and 375 eight units.

MUSIC 176. Wind Symphony (1)
Five hours.
Prerequisites: Consent of instructor.
Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 177. Symphonic Band (1)
Five hours.
Prerequisites: Consent of instructor.
Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 180. Symphony Orchestra (1)
Five hours.
Prerequisites: Consent of instructor.
Maximum credit four units.

MUSIC 184. Opera Theatre (2)
Six or more hours per week.
The interpretation and characterization of light and grand opera. Specific work in coordination of operatic ensemble. Maximum credit eight units.

MUSIC 185. Concert Choir (1)
Five hours.
Prerequisites: Consent of instructor.
Maximum credit four units.
MUSIC 166. Chamber Singers (1)  
Five hours.  
Prerequisites: Consent of instructor.  
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 189. Jazz Ensemble (1)  
More than three hours.  
Prerequisites: Consent of instructor.  
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 204. Music Composition Technology (1)  
Two hours of activity.  
Prerequisites: Music 104.  
Current technology in electro-acoustic music composition, score preparation, performance practices. Open to music majors and minors only.

MUSIC 205A. Comprehensive Musicianship (3)  
Prerequisites: Music 105B or passing placement examination.  
Music theory, harmony, and musicianship. Instrumentation and notation, composition, and arranging. Open to music majors and minors only. Not open to students with credit in Music 205B, 305A, 305B, 405A, 405B.

MUSIC 205B. Comprehensive Musicianship (3)  
Prerequisites: Music 205A with a grade of C (2.0) or better.  
Tonal harmony in the common-practice period. Composition with ostinato forms. Open to music majors and minors only. Not open to students with credit in Music 305A, 305B, 405A, 405B.

MUSIC 206A-206B. Aural Skills (1-1) Cr/NC  
Prerequisite for Music 206A: Music 105B. Prerequisite for Music 206B: Music 206A.  
Preparation for Junior Level Aural Skills Examination. For music majors only.

MUSIC 207. Composition Laboratory (1)  
Three hours of laboratory.  
Prerequisites: Consent of instructor.  
Original writing in different homophonic and polyphonic forms for various media. Maximum credit two units.

MUSIC 210A-210B. Piano - Elementary Class Instruction (1-1)  
Two hours.  
Prerequisites: For 210A: Music 110B with a grade of C (2.0) or better. For 210B: Music 210A with a grade of C (2.0) or better.  
Continuation of Music 110A-110B. Music 210A not open to students with credit in Music 210B. (Music 210A formerly numbered Music 110C. Music 210B formerly numbered Music 110D.)  
MUSIC 212. Voice - Elementary Class Instruction (1)  
Two hours.  
Mastery of the fundamentals of voice. Not open to voice majors.  
(Formerly numbered Music 115.)

MUSIC 214. Strings - Elementary Class Instruction (1)  
Two hours.  
Fundamentals of string instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with strings. Primarily for music education majors.  
(Formerly numbered Music 220.)

MUSIC 215. Woodwinds - Elementary Class Instruction (1)  
Two hours.  
Fundamentals of woodwind instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with woodwinds. Primarily for music education majors.  
(Formerly numbered Music 225.)

MUSIC 216. Brass - Elementary Class Instruction (1)  
Two hours.  
Fundamentals of brass instruments by lecture and acquisition of elementary skills.  
(Formerly numbered Music 230.)

MUSIC 217. Percussion - Elementary Class Instruction (1)  
Two hours.  
Fundamentals of percussion through acquisition of elementary skill on the snare drum and by demonstration and lecture regarding all commonly used percussion instruments of definite and indefinite pitch. Not open to percussion majors.  
(Formerly numbered Music 235.)

MUSIC 218. Guitar - Elementary Class Instruction (1)  
Two hours.  
Open to all students interested in fundamentals of guitar and elementary music skills. Not open to guitar majors.  
(Formerly numbered Music 240.)

MUSIC 243. Diction I (1)  
Three hours of activity.  
Prerequisite: Music 105B.  
Principles of pronunciation and enunciation. Application to song and opera using the IPA, in English and Italian.

MUSIC 246A. Practicum in Music Education I (2)  
One lecture and two hours of activity.  
Prerequisites: Music 205B.  
Introduction to music education. Exposure to music teaching profession at all grade levels before choosing an area of specialization.

MUSIC 246B. Practicum in Music Education II (2)  
One lecture and two hours of activity.  
Prerequisites: Music 246A with a grade of C (2.0) or better.  
Methods and materials. Development of lesson plan and selection of appropriate materials and methods. Rehearsal techniques for elementary, junior high, and high school. Observations of public school master teachers.

MUSIC 250. Performance Major Studies (3)  
Thirteen one-hour lessons.  
Prerequisites: Open only to music majors in the performance specialization. Audition required.  
Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 250 is 12 units.  
A. Keyboard  
B. Voice  
C. Woodwinds  
D. Brass  
E. Percussion  
F. Strings  
G. Classical Guitar  
H. Harp  
I. Jazz Instruments  
J. Medieval or Renaissance Instruments  
K. Non-Western Instruments  
L. Composition

MUSIC 251. Performance Studies (1-2)  
Thirteen one-half hour private lessons for one unit; thirteen one-hour private lessons for two units.  
Prerequisite: Open only to music majors. Audition and approval by music faculty.  
Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 251 is eight units.  
A. Keyboard  
B. Voice  
C. Woodwinds  
D. Brass  
E. Percussion  
F. Strings  
G. Classical Guitar  
H. Harp  
I. Jazz Instruments  
J. Medieval or Renaissance Instruments  
K. Non-Western Instruments  
L. Composition

MUSIC 260. Electro-Acoustic Music Composition I (2)  
One lecture and two hours of activity.  
Prerequisites: Music 160.  
Sound sampling, musique concrete, subtractive synthesis, physics of sound and basic digital audio theory. Emphasis on application of techniques and theoretical knowledge to produce original musical compositions.

MUSIC 261. Music of Latin America (1)  
Two hours of activity.  
Study and performance of Afro-Cuban and Brazilian music with attention to both historical/cultural elements and music performance.

MUSIC 266. Elements of Jazz II (2)  
Prerequisites: Music 166.  
Harmonic analysis of standard and bebop repertoire, less common modes and dominant scales, solo transcription, analysis, and ear-training.
MUSIC 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**UPPER DIVISION COURSES**  
(Read for Undergraduates)

**MUSIC 301. Recitals (1) Cr/NC**  
Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

**MUSIC 305A. Comprehensive Musicianship (3)**  
Prerequisites: Music 205B with a grade of C (2.0) or better. Concurrent registration in Music 308A.

**MUSIC 305B. Comprehensive Musicianship (3)**  
Prerequisites: Music 305A with a grade of C (2.0) or better. Concurrent registration in Music 308B.

**MUSIC 308A. Music History: Antiquity to Baroque (3)**  
Prerequisites: Music 151. Concurrent registration in Music 305A.

**MUSIC 308B. Music History: Classic to Romantic (3)**  
Prerequisites: Music 308A. Concurrent registration in Music 305B.

**MUSIC 309. Conducting (1)**  
Prerequisites: Music 347 with a grade of C (2.0) or better. Elements of baton technique and development of skills common to instrumental conducting. Representative literature for instrumental organizations studied and performed. Practical experience in typical conducting situations.

**MUSIC 310. Great Music (3) [GE]**  
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

**MUSIC 340. Instrumental Conducting (1)**  
Prerequisites: Music 347 with a grade of C (2.0) or better. Elements of baton technique and development of skills common to instrumental conducting. Representative literature and techniques for instrumental organizations studied and performed. Practical experience in typical conducting situations.

**MUSIC 361. Music of Indonesia (1)**  
Prerequisite: Upper division standing. Not open to music majors.

**MUSIC 362. Elements of Jazz III (2)**  
Prerequisites: Music 266. Jazz in America

**MUSIC 363. History of Jazz (3)**  
Prerequisites: Consent of instructor. Jazz style and forms as they have evolved historically. Classroom playing experience in jazz styles as a part of study. Designed for music majors and minors. (Formerly numbered Music 364A-364B.)

**MUSIC 364. History of Jazz (3)**  
May be repeated with new content. Maximum credit four units.

**MUSIC 366. Elements of Jazz III (2)**  
Prerequisites: Music 266. Post bop repertoire, altered modes and scales, solo transcription, analysis, and ear-training.

**MUSIC 369. Collegium Musicum (1)**  
Prerequisites: Consent of instructor. Performance of medieval and renaissance music on reproductions of historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

**MUSIC 370. Chamber Music (1)**  
Three hours. Four hours for opera. Prerequisites: Consent of instructor. Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

**MUSIC 371. Conducting (1)**  
Prerequisites: Consent of instructor. Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

**MUSIC 372. Marching Band (2)**  
More than six hours. Prerequisites: Consent of instructor. Practical experience in rehearsal technique. Maximum combined credit for Music 175 and 375 eight units.
MUSIC 376. Wind Symphony (1)
 Five hours per week.
 Prerequisites: Consent of instructor.
 Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 377. Symphonic Band (1)
 Five hours.
 Prerequisites: Consent of instructor.
 Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 380. Symphony Orchestra (1)
 Five hours.
 Prerequisites: Consent of instructor. Maximum credit four units.

MUSIC 383. Opera Theatre (2)
 Six or more hours per week.
 Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units.

MUSIC 385. Concert Choir (1)
 Five hours.
 Prerequisites: Consent of instructor. Maximum credit four units.

MUSIC 386. Chamber Singers (1)
 Five hours.
 Prerequisites: Consent of instructor. Maximum credit four units.

MUSIC 389. Jazz Ensemble (1)
 More than three hours.
 Prerequisites: Consent of instructor. Study and public performance of representative literature for ensemble. Practical experience in rehearsal technique. Maximum credit four units.

MUSIC 405A. Comprehensive Musicianship (3)
 Prerequisites: Music 305B with a grade of C (2.0) or better. Harmony and counterpoint in 20th century, from Impressionism to present. Analysis and composition in post-tonal or 12-tone techniques. Open only to music majors and minors only. Not open to students with credit in Music 405B.

MUSIC 405B. Comprehensive Musicianship (3)
 Prerequisites: Music 405A with a grade of C (2.0) or better. Historical developments in last half of 20th century. Independent projects in composing and arranging for small and large ensembles. Open to music majors and minors only.

MUSIC 408A. Music History: Twentieth and Twenty-First Century (3)
 Prerequisites: Music 308B.
 Art music from beginning of 20th century to present. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

MUSIC 408B. Music History: Jazz Survey and Improvisation (2)
 One lecture and two hours of laboratory.
 Prerequisites: Music 408A.
 Historical and theoretical overview of jazz art music tradition. Rhythmic, harmonic, and melodic components. Analytical score study. Practical experience in modal and tonal jazz improvisation. Open only to music majors and minors.

MUSIC 445. Performing Arts and Culture (1)
 Prerequisites: Upper division standing.
 Exploration of traditional performing arts of different contemporary world cultures, with emphasis on kinesthetic and psychological aspects of experience of performance. Open to all upper division students. May be repeated with new content. Maximum credit three units.

MUSIC 446. Practicum in Music Education IV (2)
 One lecture and two hours of activity.
 Prerequisites: Music 220B, 210A, 346, 347 with a grade of C (2.0) or better. Early field experience. Students will complete 20 hours of public school teaching in their area of specialization. Master teachers will provide on-site guidance and evaluation. Field experience and increased effectiveness discussed.

MUSIC 450. Performance Major Studies (3)
 Thirteen one-hour lessons.
 Prerequisites: Open only to music majors in the performance specialization. Audition required.
 Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 450 is 12 units.

MUSIC 451. Performance Studies (1-2)
 Thirteen one-half hour private lessons for one unit; thirteen one-hour private lessons for two units.
 Prerequisite: Open only to music majors. Audition and approval by music faculty.

MUSIC 507. Composition Laboratory (1)
 Prerequisites: Open only to music majors. Audition and approval by music faculty. Study and public performance of representative literature for ensemble. Practical experience in rehearsal technique. Maximum credit four units.

MUSIC 508A. Elements of Jazz IV (2)
 Prerequisites: Music 366.
 Atonal and aeromedical theories and philosophy, research paper, solo transcription, analysis, and ear-training.

MUSIC 546. Experimental Topics (1-4)
 Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.
MUSIC 515. Professional Orientation for Music Performers (2)
One lecture and two hours of activity.
Prerequisites: Twelve units of upper division or graduate standing in B.M. or M.M. degree. Others by consent of instructor.
Conditions met in professional music world as well as opportunities available. Auditions, contracts, legal and tax responsibilities, media and press promotion, grants, professional management, apprenticeships.

MUSIC 516. Performance Practice Forum (1)
Two hours of activity.
Prerequisites: Consent of instructor.
Musical style, repertoire, presentation, and evaluation as embodied in a musical performance. May be repeated with new content. Maximum credit four units.

MUSIC 517. Orchestra Audition Practices (1)
Two hours of activity.
Prerequisite: Graduate or upper division music major standing.
Techniques necessary to win an orchestral audition. Practice and preparation, live mock auditions, addressing stage fright and resume evaluation. See Class Schedule for specific content.

MUSIC 541. Performance Studies Pedagogy (3)
Two lectures and three hours of laboratory.
Prerequisites: Consent of instructor.
Teaching strategies for beginning and intermediate applied music. Survey and evaluation of teaching materials. Observation of individual or group lessons. See Class Schedule for specific content. Not open to students with credit in Music 541A and 541C.

MUSIC 542. Performance Studies Laboratory (2)
One lecture and three hours of laboratory.
Prerequisite: Music 541 with grade of C (2.0) or better.
Practical experience in teaching of individual or group lessons. See Class Schedule for specific content. Not open to students with credit in Music 542A and 542C.

MUSIC 543. Diction II (1)
Prerequisite: Music 243.
Principles of pronunciation and enunciation. Application to song and opera in Spanish, German, and French.

MUSIC 545. Music of Cultures of the World (3)
Prerequisite: Graduate or upper division standing in music.
Diverse music traditions from around the world (traditional, classical, popular, sacred, folk). Ethnomusicology and contemporary topics in crosscultural music study.

MUSIC 554. Music Literature (2)
Prerequisite: Music 205B with a grade of C (2.0) or better.
Study of music literature. Analysis of scores and recordings. May be repeated with new course content. See Class Schedule for specific content. Maximum credit six units applicable to a bachelor's and master's degree.

MUSIC 560. Music and Visual Media (3)
Two lectures and three hours of activity.
Prerequisites: Music 460.
Techniques and aesthetics of combining music/sounds and visual elements, including contemporary film scoring techniques, sound design for installations and performance art, video game scoring and experimental immersive 3-D virtual reality.

MUSIC 561. Area Studies: Ethnomusicology (3)
Prerequisites: Music 305B with a grade of C (2.0) or better.
Music of a specific culture. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

MUSIC 566A-566B. Jazz Arranging and Composition (2-2)
Prerequisites: Music 305B with a grade of C (2.0) or better.
Analysis of jazz compositions and arrangements; arranging and composing for large and small jazz ensembles.

MUSIC 569. Advanced Collegium Musicum (1)
Prerequisites: Music 369.
Preparation and performance of representative works by a specific medieval or renaissance composer on historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

MUSIC 570. Advanced Chamber Music (1)
Three hours.
Prerequisites: Consent of instructor.
Study and public performance of established repertory as well as new compositions. Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new course content. See Class Schedule for specific content. Maximum credit four units.

MUSIC 576. Wind Symphony (1)
Five hours.
Prerequisites: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 577. Symphonic Band (1)
Five hours.
Prerequisites: Consent of instructor.
Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 580. Symphony Orchestra (1)
Six or more hours per week.
Prerequisites: By audition.
Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units of which six units are applicable to a master's degree.

MUSIC 585. Concert Choir (1)
Five hours.
Prerequisites: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 586. Chamber Singers (1)
Three hours.
Prerequisites: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 590. Advanced Practicum in Music (3)
Prerequisites: Consent of instructor in area of practicum.
Students will be assigned to appropriate class sections within selected undergraduate area as instructional assistants under staff supervision.

MUSIC 596. Special Topics in Music (1-3)
A specialized study of selected topics from the several areas of music. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

MUSIC 598. Seminar in Music Theory (3)
Prerequisite: Admission to the graduate program.
Synthesis of theoretical forms, concepts, and practices required for full candidacy in the graduate music program. Not applicable to the master's degree in music.

GRADUATE COURSES
Refer to the Graduate Bulletin.
Natural Science (N SCI)

In the College of Sciences
Administered by the Department of Physics

LOWER DIVISION COURSE

N SCI 100. Physical Science (3) [GE]
Conceptual approach to major issues in physics and chemistry, including principles of motion and energy and structure and properties of matter. Effects of physical science and technology on individuals and human society.

UPPER DIVISION COURSES
(Intended for Undergraduates)

N SCI 310. Science in Science Fiction (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Comparison of science portrayed in science fiction literature and mass media with science as understood by practicing scientists, emphasizing theoretical frameworks such as relativity, quantum mechanics, and evolution, and how authors work within or against such frameworks.

N SCI 315. History of Science and Technology (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Ethical, moral, social, and cultural implications of significant issues and ideas in science and technology. History of development of these ideas from ancient Greek thinkers to contemporary scientists.

N SCI 317. Development of Scientific Thought (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Basic scientific concepts and their historical development with emphasis on the problem of theory construction. The relationship between disciplined imagination and observational fact, as illustrated by selected case histories. Limitations of scientific inquiry.

N SCI 333. Technology and Human Values (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Development of technology from the Middle Ages to present. Ethical, moral, social, cultural, and organizational implications as to how societies acquire technology.

N SCI 412. Processes and Inquiry in the Physical Sciences (4)
Three lectures and two hours of activity.
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Investigation of processes of inquiry and rational thinking skills characteristic of the physical sciences. (Formerly numbered Natural Science 412A.)

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

N SCI 596. Special Topics in Natural Science (1-4)
Prerequisites: Minimum ten units of natural science. Selected topics in natural science for preserve and inservice elementary and secondary teachers and candidates for the M.A. in education. May be repeated with consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Naval Science (NAV S)

In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSE

NAV S 101. Introduction to Naval Science (2)
Structure, principles, and practices; lines of command and control; logistical organizations; functions and services of major components of the Navy and Marine Corps; shipboard organization; ethics and basic leadership skills.

NAV S 102. Naval Engineering (3)
Ship characteristics and types including hull, electrical, auxiliary systems, stability and damage control. Operation advantages and disadvantages of steam, gas turbine, and diesel propulsion engines receive in-depth study. Leadership topics in an engineering setting.

NAV S 201A. Naval Leadership and Management I (3)
Prerequisites: Naval Science 101 and 102. Ethics and integrity, progressing through management theory and practical functions of management, culminating with module on leadership. Exposure to complex ethical, managerial, and leadership issues.

NAV S 202. Sea Power and Maritime Affairs (3)
Sea power and maritime affairs; general concept of sea power including Merchant Marine; role of naval warfare components used to support the Navy's mission; sea power as an instrument of national policy; comparative study of US and Soviet strategies.

UPPER DIVISION COURSE
(Intended for Undergraduates)

NAV S 301. Navigation (3)
Piloting, navigation, maneuvering, rules of nautical road. Use of charts, visual and electronic aids, operation of magnetic and gyro compasses, relative motion vector analysis, formation tactics, and ship employment. Tides, currents, wind, weather, navigation instruments, and characteristics of electronic navigation.

NAV S 302. Naval Operations (3)
Prerequisites: Naval Science 301. Naval operations and operations analysis, ship handling, and afloat communications. Case analyses stress practical application of skills. Leadership traits in themes of communication counseling and conflict resolution applicable to naval operations.

NAV S 310. Evolution of Strategic Operations (3)
Forms of warfare through history to formulate sense of historical continuity in evolution of warfare, to develop a basic sense of strategy and alternative military actions, and to explore impact of historical precedent on military thought and actions.

NAV S 401A. Naval Weapons (3)
Prerequisites: Naval Science 302. Develop working foundation and understanding of diversity and complexity of Navy and Marine Corps weapons systems including target detection and tracking, radar, sonar, electronic warfare systems, weapons warheads, fuzing, propulsion, guidance, launching, and fire control systems.

NAV S 402. Naval Leadership and Ethics (3)
Prerequisites: Naval Science 201A. Naval leadership and management with emphasis on military justice administration, naval personnel management, material management, and administration of discipline.

NAV S 410. Amphibious Operations (3)
Amphibious warfare, doctrinal origins, and its evolution as an element of naval policy during the twentieth century.
Nursing (NURS)

In the College of Health and Human Services

LOWER DIVISION COURSES

NURS 200. Informatics for the Nurse (1)
Prerequisite: Admission to nursing major.

NURS 202. Client Assessment (4)
Two lectures and six hours of laboratory.
Prerequisite: Admission to nursing program and concurrent registration in Nursing 206.
Determining and measuring variables relevant to assessment of psychosocial and physical functioning.

NURS 206. Fundamentals of Nursing Practice (5)
Three lectures and six hours of laboratory.
Prerequisite: Admission to nursing program and concurrent registration in Nursing 202.
Basic nursing skills and integration of diagnosis, planning, and implementation of nursing care. Application of nursing process.

NURS 208. Pathophysiology (3)
Prerequisite: Biology 212 and 261.
Pathophysiologic processes as they apply to nursing care of patients.

NURS 296. Experimental Topics (1–4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

NURS 300. Nursing Care of the Acutely Ill Adult (8)
Three lectures and 15 hours clinical per week.
Prerequisites: Nursing 200, 202, 206, 208. Concurrent registration in Nursing 304.
Psychological, social, and biological stressors affecting adult health and appropriate nursing interventions.

NURS 302. Nurse-Client Relationships: Cultural and Mental Health Concepts (3)
Prerequisite: Nursing 202 and 206.
Nurse-client communication and application to clinical nursing practice. Origins of a variety of communication styles. Cultural and mental health concepts related to communication. (Formerly numbered Nursing 254.)

NURS 304. Clinical Pharmacology in Nursing Practice (3)
Prerequisites: Nursing 202, 206, 208.
Major classifications of drugs; pharmacological and toxicological activity; clinical applications. Role of nurse in assessment, intervention, and patient education. (Formerly numbered Nursing 456.)

NURS 307. Research and Evidence-Based Practice (3)
Prerequisite: Mathematics/Quantitative Reasoning General Education; Nursing 200 and 300.
Nursing research process. Emphasis on identification of researchable questions and beginning critiquing ability.

NURS 308. Adult Health Nursing (6)
Three lectures and nine hours of laboratory.
Prerequisite: Nursing 302; concurrent registration in Nursing 304 and 410.
Application of theories of stressors and/or biological responses specifically affecting the adult on the health-illness continuum. Laboratory focuses on the application of the nursing process in implementing preventive, supportive, and restorative therapeutic modalities which assist the adult client to reestablish, maintain, or develop new adaptive responses.

NURS 312. Concepts in Professional Nursing (3)
Prerequisite: Admission to the RN to BS program.
Concepts in professional nursing. Differentiation of professional practice with emphasis on stress theory, therapeutic communication, values clarification, and legal aspects. Not open to generic students.

NURS 350. Women’s Health Across the Lifespan (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.
Explores health issues women face across their lives. Focus on developing knowledgeable users of research on causes of and risk factors for health problems. Not applicable to nursing majors.

NURS 354. Nursing Care of the Childbearing Family (5)
Two lectures and nine hours of laboratory.
Prerequisites: Nursing 300 or 308, 302, 304.
Family-centered focus encompassing adaptive and maladaptive responses to stressors in the maternity cycle and their effect on the neonate. Clinical laboratory focuses on the application of nursing theory and process in providing preventive, supportive and restorative care to mothers and neonates.

NURS 356. Pediatric Nursing (5)
Two lectures and nine hours of laboratory.
Prerequisites: Nursing Nursing 300 or 308, 302, 304; Child and Family Development 270 or Psychology 230.
Stressors affecting the child on health-illness continuum. Nursing theory and laboratory focuses on application of nursing process in providing preventive, supportive and restorative therapeutic modalities in a variety of settings. Emphasis on the child in the family and the necessary intervention to promote adaptation of the child to attain, maintain or regain an optimum level of health.

NURS 358. Basic Electrocardiography (1) Cr/NC
Prerequisite recommended: Nursing 300.
Basic electrophysiological and interpretive concepts necessary for identification and management of supraventricular and ventricular rhythms. (Formerly numbered Nursing 453.)

NURS 397. Preparation for Clinical Practice (1) Cr/NC
Two hours per week of supervised practice.
Prerequisites: Admission to the School of Nursing. Supervised practice of nursing skills and techniques. Course is elective for students. Credit earned in this course not applicable to bachelor’s degree.

NURS 400. Nursing Care of Complex, High Acuity, or Critically Ill Patients (3)
Prerequisites: Nursing 410, 415; concurrent registration in Nursing 400L.
Theory in care of patients with complex, high acuity, and life-threatening health problems.

NURS 400L. Nursing Care of Complex, High Acuity, or Critically Ill Patients Laboratory (3)
Nine hours of clinical practice.
Prerequisites: Nursing 410, 415; concurrent registration in Nursing 400L.
Laboratory experience in care of patients with complex, high acuity, and life-threatening health problems.

NURS 410. Gerontological Nursing (3)
Two lectures and three hours of laboratory.
Prerequisites: Nursing 202, 206, 208.
Theory and selected laboratory experience focusing on stressors affecting elderly on health-illness continuum. Gerontologic nursing in a variety of settings. (Formerly numbered Nursing 314.)

NURS 414. Community Health Nursing (6)
Three lectures and nine hours of laboratory.
Prerequisites: Nursing 307, 354, 356.
Assessment and utilization of community health care concepts and delivery with emphasis on promotion of health, prevention of illness and individual and group teaching techniques. Consideration given to cultural aspects of health care. Not open to students with credit in Nursing 415 or 415L.
NURS 415. Community Health Nursing (3)
Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 415L.
Assessment and utilization of community health care concepts and delivery with emphasis on promotion of health, prevention of illness and individual and group teaching techniques. Consideration given to cultural aspects of health care. Not open to students with credit in Nursing 414. (For students admitted to the nursing major spring 2008 or later.)

NURS 415L. Community Health Nursing Laboratory (2)
Six hours of laboratory.
Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 415.
Application of theory of community health nursing applied to a variety of community-based settings such as public health environments, homes, schools, prisons. Not open to students with credit in Nursing 414. (For students admitted to the nursing major spring 2008 or later.)

NURS 416. Psychiatric-Mental Health Nursing (5)
Three lectures and six hours of laboratory.
Prerequisites: Nursing 307, 354, 356; Psychology 251.
Theory and clinical laboratory in application of nursing process to care of clients evidencing maladaptive responses to psychosocial stressors. Presentation of theories describing and explaining maladaptive behaviors and application of nursing interventions in a variety of treatment modalities.

NURS 452. Basic Concepts in Critical Care Nursing (5)
Three lectures and six hours of laboratory.
Theory and selected laboratory experience in care of clients with complex health problems requiring intensive nursing care. Consideration given to student’s preference for specific clinical area of concentration.

NURS 454. Primary Health Care Nursing (5)
Three lectures and six hours of laboratory.
Prerequisites: Nursing 414 and 416.

NURS 458. Nursing Management and Leadership (3)
Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458L.
Theories and functions of nursing management and leadership within health care system. Economics of health care.

NURS 458L. Nursing Management and Leadership Laboratory (2)
Six hours of laboratory.
Prerequisite: Concurrent registration in Nursing 458.
Laboratory experience in nursing management and leadership.

NURS 460. Professional Development (2)
Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and Nursing 452 or 454.
Preparation for professional role in nursing. Emphasis in socioeconomic, political, and legal aspects of nursing. Discussions of advocacy, ethics, and current issues.

NURS 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

NURS 498. Cooperative Education Supervised Practice (2-6) Cr/NC
Seminar: Two hours biweekly. Clinical hours arranged by student and employer.
Prerequisites: Nursing 300 or 308.
Supervised practice in application of previously learned knowledge and skills in selected clinical agencies. Professional interaction with other health care workers to strengthen professional nursing identity. Work under supervision of registered nurse preceptor and faculty coordinator. May be repeated. Maximum credit two units applicable to a bachelor’s degree.

NURS 499. Special Study (1-3)
Prerequisites: Nursing 300 or 308 and consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

NURS 501. Advanced Health Assessment and Health Promotion (3)
Prerequisite: Consent of School of Nursing Student Service Adviser; concurrent registration in Nursing 501L.
Physical and psychosocial assessment techniques, health promotion strategies for select populations. (Nursing 501 and 501L formerly numbered Nursing 500.)

NURS 501L. Advanced Health Assessment and Health Promotion Laboratory (1)
Three hours of laboratory.
Prerequisite: Consent of School of Nursing Student Service Adviser; concurrent registration in Nursing 501.
Laboratory experience in advanced health assessment and health promotion. (Nursing 501 and 501L formerly numbered Nursing 500.)

NURS 596. Special Topics in Nursing (1-3)
Prerequisites: Completion of 30 upper division units in nursing or graduate status; 3.0 grade point average.
Selected topics in the practice of nursing. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.
NUTR 203. Cultural Aspects of Food and Nutrition (3)
Prerequisites: Nutrition 205 and Biology 210. Proof of completion of prerequisites required: Copy of transcript. Physical, chemical, nutritional, and functional properties and quality attributes of foods; food additives; food handling, changes and interactions of food components induced by processing and storage; food laws, regulations, legislation, and food safety issues.

NUTR 302. Advanced Nutrition (3)
Prerequisites: Nutrition 201, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302L. Proof of completion of prerequisites required: Copy of transcript. Integration of cellular, physiological, and biochemical relationships with human nutrient requirements.

NUTR 302L. Advanced Nutrition Laboratory (2)
Six hours of laboratory. Prerequisites: Nutrition 201, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302. Proof of completion of prerequisites required: Copy of transcript. Application and evaluation of techniques used to assess nutritional status, including basic methods, experimental animal and human studies.

NUTR 303. Quantity Food Production (2)
Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303L. Quantity food production service delivery systems. Skills for food safety, recipe standardization, menu planning, purchasing, production operations, and quality standards. Intended for majors in foods and nutrition and hospitality and tourism management.

NUTR 303L. Quantity Food Production (1)
Three hours of laboratory. Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303. Practical applications of quantity food production systems and methods with emphasis on food safety (HACCP), menu planning, purchasing, facilities and equipment, and food quality. Intended for majors in foods and nutrition and hospitality and tourism management.

NUTR 304. Nutrition Throughout the Life Span (3)
Prerequisites: Nutrition 201. Factors affecting nutrient needs and ways to meet nutrient requirements across the life span. Not open to students with credit in Nutrition 208.

NUTR 305. Food Preparation (5)
Three lectures and six hours of laboratory. Prerequisites: Grade of C or better in Nutrition 101 and Chemistry 100 and 130 (or concurrent registration in Chemistry 231). Proof of completion of prerequisites required: Copy of transcript. Composition, preparation, preservation, sensory and consumer evaluation of foods.

NUTR 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

NUTR 301. Science of Foods (3)
Prerequisites: Nutrition 205 and Biology 210. Proof of completion of prerequisites required: Copy of transcript. Application and evaluation of techniques used to assess nutritional status and dietary requirements. Current theories and practices related to nutrition and athletic performance. (Formerly numbered Nutrition 202.)

NUTR 309. Eating Disorders and Weight Control (2)
Prerequisites: Upper division standing in foods and nutrition or kinesiology or other majors with consent of instructor. Obesity and other eating disorders. Review of etiology, incidence, socioeconomic influences, pathogenesis and treatments. Treatment techniques practiced include modification of diet, activity and behavior. Of interest to those wishing to do weight control counseling.

NUTR 312. Nutrition for Athletes (3)
Prerequisites: Nutrition 201. Influence of exercise on nutritional status and dietary requirements. Current theories and practices related to nutrition and athletic performance. (Formerly numbered Nutrition 202.)

NUTR 388. Dietetic Practice I (1)
Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 201, 205, and consent of instructor. Practical experience in food service and medical nutritional therapy for future dietitians.

NUTR 398. Supervised Field Experience (1-3)
Three hours per week for 15 weeks per unit of course credit. Prerequisites: Upper division standing required; limited to foods and nutrition majors. Supervised practical experience in areas of food and nutrition. Maximum credit six units.

NUTR 404. Food Systems Management (3)
Prerequisites: Nutrition 303 and 303L. Managerial functions in food service systems.

NUTR 405. Experimental Food Science (3)
One lecture and six hours of laboratory. Prerequisites: Nutrition 301. Proof of completion of prerequisites required: Copy of transcript. Application of principles and methods of physical and sensory evaluation and food component analysis to conventional and fabricated foods; effects of additives and ingredient variations; project studies; data interpretation and report writing.

NUTR 406. Diet Therapy (4)
Prerequisites: Nutrition 302 and 302L. Proof of completion of prerequisites required: Copy of transcript. Dietary management of pathological and debilitating diseases.

NUTR 407. Medical Nutrition Therapy Laboratory (1)
Three hours of laboratory. Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, and concurrent registration in Nutrition 406. Required for Didactic Program in Dietetics competencies established by the American Dietetic Association. Builds multi-level skills for dietetic practice to assess nutritional status and to develop care plans for patients.

NUTR 488. Dietetic Practice II (1)
Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, 303, 303L, 388, and consent of instructor. Advanced practical experience in food service and medical nutrition therapy for future dietitians.

NUTR 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

NUTR 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

NUTR 510. Nutrition and Community Health (3)
Two lectures and three hours of activity. Prerequisites: Grade of C or better in Nutrition 302, 302L, Nutrition 203, 304, and consent of instructor. Nutritional problems in the community with consideration of their resolution. Field placement experience required.
NUTR 596. Advanced Studies in Nutrition (1-6)
Prerequisites: Nine upper division units in nutrition.
Advanced study of selected units. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of nine units of 596. More than six units of 596 may be applied to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Oceanography (OCEAN)
Administered by the Department of Geological Sciences

LOWER DIVISION COURSE
OCEAN 100. The Ocean Planet (4) [GE]
Three lectures and three hours of laboratory.
Physical, chemical, geological, and biological foundations of the global ocean system, with emphasis on science as a process and its role in environmental issues from global climate change to local pollution.

UPPER DIVISION COURSES
(Intended for Undergraduates)
OCEAN 320. The Oceans (3) [GE]
Prerequisites: One introductory college course in a life science and one in a physical science, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.
The ocean system, its influence on life, climate, the earth, and humankind.
OCEAN 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.
For additional courses in Marine Studies see:
Biology 305. Scientific Scuba Diving
Biology 306. Scientific Scuba Diving for Certified Divers
Biology 515. Marine Invertebrate Biology
Biology 517. Marine Ecology
Economics 454. Economics of the Ocean
Geography 504. Coastal and Submarine Physiography
Geography 588. Intermediate Remote Sensing of Environment
Geological Sciences 540. Marine Geology
Geological Sciences 545. Descriptive Physical Oceanography

Persian
In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES
Native speakers of Persian will not receive credit for taking lower division courses in Persian except with advance approval from the department.
No credit will be given for Persian 101, 102, and 201 taken out of sequence.
PERS 101. Elementary Modern Persian I (4) [GE]
Introduction to modern Persian and Persian writing system. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed three years of high school Persian unless the third course was completed five or more years ago. Not open to students with credit in Persian 102.
PERS 102. Elementary Modern Persian II (4) [GE]
Prerequisites: Persian 101 or two years of high school Persian. Continuation of Persian 101. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed four years of high school Persian unless the fourth course was completed five or more years ago.
PERS 201. Intermediate Persian I (4) [GE]
Prerequisite: Persian 102.
Further development of speaking, reading, listening, and writing skills, with emphasis on language of everyday conversation. Integrated approach to learning Persian to include awareness and appreciation of Persian culture. Not open to students who have completed five years of high school Persian unless the fifth course was completed five or more years ago.
PERS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

Philosophy (PHIL)
In the College of Arts and Letters

LOWER DIVISION COURSES
PHIL 101. Introduction to Philosophy: Ethics (3) [GE]
Philosophical inquiry, with emphasis on problems of moral value. Students are encouraged to think independently and formulate their own tentative conclusions concerning a variety of vital contemporary issues facing individuals and society.
PHIL 102. Introduction to Philosophy: Knowledge and Reality (3) [GE]
Introduction to philosophical inquiry with emphasis on problems of knowledge and reality. Students are encouraged to think independently and formulate their own tentative conclusions.
PHIL 103. Historical Introduction to Philosophy (3) [GE]
Introduction to philosophical inquiry through study of the works of major philosophers in their historical contexts.
PHIL 110. Critical Thinking and Composition (3) [GE]
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Africana Studies 120 or Chicana or Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. Proof of completion of prerequisites required: Test scores or verification of exemption; grade report or copy of transcript.
PHIL 120. Introduction to Logic (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.
Introduction to deductive and inductive logic. Logic and language. Analysis of fallacies. Uses of logic in science and in daily life.
PHIL 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.
Philosophy

UPPER DIVISION COURSES
(Intended for Undergraduates)

PHIL 305. Classics of Western Philosophy (3) [GE]
Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.
Analysis of major texts selected from diverse historical periods in western philosophy. Texts will illustrate different world views (e.g., Platonism, Stoicism, Skepticism) and their relationship to other disciplines and to present world views.

PHIL 310. Philosophy and Human Nature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Concept of human nature. Descriptive and normative aspects of major theories of human nature.

PHIL 329. Social Ethics (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Ethical issues of contemporary life. Individualism vs. collectivism; democracy vs. dictatorship; ethical problems arising in law, medicine, business, government and interpersonal relationships.

PHIL 330. Medical Ethics (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Value judgments upon which medicine is based and the ethical issues which medicine faces.

PHIL 332. Environmental Ethics (3) [GE]
Prerequisites: Completion of General Education requirement in Foundations II.C., Humanities.
Development of traditional values concerning the natural environment. Reasons for altering values in light of modern changes in relationships of human beings to the environment. Application of ethical principles to actions affecting the environment.

PHIL 333. Philosophy of Technology (3) [GE]
Prerequisites: Completion of General Education requirement in Foundations II.C., Humanities.
Nature of technology. Ethical aspects of social, political, and environmental problems associated with rapid development of technology over the last century. Responses to these problems by contemporary philosophers.

PHIL 334. Philosophy and Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Study of literature of philosophical significance and of philosophical problems of literature.

PHIL 340. Morality of War and Peace (3) [GE]
Prerequisites: Completion of General Education requirement in Foundations II.C., Humanities.
Historical and contemporary arguments regarding morality of war, pacifism, and terrorism, with contemporary applications.

PHIL 351. Chinese Philosophy (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.
Philosophical traditions which have shaped the intellectual life and culture of China. Emphasis on foundational texts surviving from pre-Han China.

PHIL 411. Ancient Western Philosophy (3)
Prerequisites: Three units in philosophy.
Ancient western philosophy through the third century A.D.

PHIL 412. Medieval Philosophy (3)
Prerequisites: Three units in philosophy.
European, Arabic, and Jewish philosophies from the fourth to the fifteenth centuries.

PHIL 413. Renaissance and Early Modern Philosophy (3)
Prerequisites: Three units in philosophy.
European philosophy from the sixteenth to eighteenth centuries.

PHIL 414. Nineteenth Century European Philosophy (3)
Prerequisites: Three units in philosophy.
European philosophy in the nineteenth century.

PHIL 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

PHIL 499. Special Study (1-3)
Prerequisites: Six upper division units in philosophy and prior arrangements with a supervising instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

PHIL 506. Twentieth Century Continental Philosophy (3)
Prerequisites: Six upper division units in philosophy.
Major figures and movements in European philosophy from Husserl to the present.

PHIL 507. Twentieth Century Anglo-American Philosophy (3)
Prerequisites: Six upper division units in philosophy.
Major movements, issues, or figures of twentieth century Anglo-American philosophy. Course may be repeated with new content. Maximum credit six units.

PHIL 508. Existentialism (3)
Prerequisites: Six units in philosophy.
The philosophical aspects of existentialism. Major emphasis is on the diversity of thought within a common approach as this is shown in individual thinkers.

PHIL 510. Philosophy of Law (3)
Prerequisites: Three units from Philosophy 101, 102, or 103; and three units from philosophy or political science.
Philosophical and ethical investigation into nature of law, rights, liberty, responsibility, and punishment.

PHIL 512. Political Philosophy (3)
Prerequisites: Philosophy 101, 102 or 103.
Selected aspects of the political structures within which we live, such as law, power, sovereignty, justice, liberty, welfare.

PHIL 521. Deductive Logic (3)
Prerequisites: Philosophy 110 or 120. Recommended: Philosophy 120.
Principles of inference for symbolic deductive systems; connectives, quantifiers, relations and sets. Interpretations of deductive systems in mathematics, science and ordinary language. Not open to students with credit in Mathematics 523.

PHIL 523. Theory of Knowledge (3)
Prerequisites: Six units in philosophy.
Philosophical analysis of knowledge, including conceptions of belief, justification, and truth.

PHIL 525. Metaphysics (3)
Prerequisites: Six units in philosophy.
Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism.

PHIL 528. Theory of Ethics (3)
Prerequisites: Six units in philosophy.
Advanced topics in ethical theory, including normative ethics and meta-ethics. May include historical or contemporary readings or both. Issues may include content of moral value, nature of moral judgment, and accounts of virtue and right action.

PHIL 531. Philosophy of Language (3)
Prerequisites: Six units in philosophy.
An introduction to theories of meaning for natural languages and formal systems; concepts of truth, synonymy and analyticity; related epistemological and ontological problems.

PHIL 532. Philosophy of History (3)
Prerequisites: Six units in philosophy.
Accounts of historical development, historical change, and nature of historical explanation.
PHIL 535. Philosophy of Religion (3)
Prerequisites: Six units in philosophy.
Philosophical examination of issues raised by the religious impulse in man.

PHIL 536. Philosophy of Mind (3)
Prerequisites: Three upper division units in philosophy.
Prominent theories and arguments regarding relation between mind and body. Varieties of dualism considered along with major materialist rivals.

PHIL 537. Philosophy of Science (3)
Prerequisites: Six units in philosophy.
The basic concepts and methods underlying contemporary scientific thought. Contributions of the special sciences to a view of the universe as a whole.

PHIL 541. History of Aesthetics (3)
Prerequisites: Philosophy 101, 102 or 103.
Major documents in the history of aesthetics.

PHIL 542. Philosophy of Art (3)
Prerequisites: Six units in philosophy.
The nature of aesthetic experience. Principal contemporary theories of art in relation to actual artistic production and to the function of art in society.

PHIL 543. Philosophy and Literary Theory (3)
Prerequisites: Three upper division units in philosophy and three upper division units in literature.
Relations between philosophy and literary discourse. Strategies of interpretation offered by major contemporary thinkers.

PHIL 565. Asian Philosophies (3)
Prerequisite: Six units in philosophy. Strongly recommended: Philosophy 351.
Dimensions of Asian philosophies, past and present. Encounter between Buddhism and post-modern science, contemporary Asian philosophers ("global gurus") and their impact on non-Asian cultures, enigmatic notion of emptiness (sunya, wu). See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

PHIL 575. A Major Philosopher (3)
Prerequisites: Six upper division units in philosophy.
The writings of one major philosopher. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to the major in philosophy. Credit six units applicable to a master's degree.

PHIL 596. Selected Topics (3)
Prerequisites: Six upper division units in philosophy.
A critical analysis of a major problem or movement in philosophy. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 596, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596, 496 applicable to the major in philosophy. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

PHIL 599. Special Study (1-3)
Prerequisites: Upper division or graduate standing and consent of instructor.
Directed individual study in philosophy on a theme or topic chosen in consultation with the instructor. Maximum credit six units. Maximum combined credit six units of Philosophy 599 and 798 applicable to the M.A. degree in Philosophy.

GRADUATE COURSES
Refer to the Graduate Bulletin.
PHYS 197. Principles of Physics (3)
Prerequisites: Physics 196.
Fundamental principles of physics in areas of wave motion, sound, electromagnetic waves, optics, relativity, and modern physics. Designed for students requiring calculus-based physics.

PHYS 197L. Principles of Physics Laboratory (1)
Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Physics 197.
Experiments in optics, lasers, holography, and nuclear counting.

PHYS 242. Application of Mathematics to Physics (3)
Prerequisites: Mathematics 151, Physics 195, 196 with a minimum grade of C or better. Credit or concurrent registration in Mathematics 252.
Mathematical concepts needed to understand language of physics. Applications to physics problems in areas of mechanics, electromagnetism, and modern physics.

PHYS 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

PHYS 301. Energy and the Environment (3) [GE]
Prerequisites: Completion of the General Education requirements in Communication and Critical Thinking and Foundations II.A., Natural Sciences and Quantitative Reasoning.
Fundamental physical concepts underlying energy, its conversion, and impact on the environment.

PHYS 311. Electronics for Scientists (4)
Three lectures and three hours of laboratory.
Prerequisites: Physics 195 and 196L, AC and DC circuits, diodes, transistors, conventional and operational amplifiers, analog to digital conversion, pulse and digital electronics. Introduce science majors to modern electronic devices and their utilization in scientific instrumentation.

PHYS 317. Introduction to Computational Physics (2)
Six hours of laboratory.
Prerequisites: Physics 197 and Mathematics 242A.
Numerical methods applied to a variety of physics topics. Use of computers to solve and plot problems involving differential equations, matrices, root finding, numerical integration.

PHYS 333. Physics Perspectives (3)
Prerequisites: Physics 180B or 197.
Theoretical physics emphasizing basic themes cutting across separate traditional subject divisions. Visualize three-dimensional vector fields, forces and torques. Balance between derivations, conceptual understanding, numerical problem-solving, estimations, and proportional reasoning.

PHYS 350. Classical Mechanics (3)
Prerequisites: Physics 195 and 242 with a minimum grade of C. Credit or concurrent registration in Mathematics 242A.
Newtonian mechanics: gravitation, small oscillations, collisions, motion of rigid bodies, Lagrangian mechanics.

PHYS 354. Modern Physics (3)
Prerequisites: Physics 197 and 242 with a minimum grade of C. Credit or concurrent registration in Mathematics 242A.
Special theory of relativity. Particle properties of electromagnetic radiation, and wave properties of particles. Introduction to quantum theory with applications to atomic structure.

PHYS 357. Advanced Physical Measurements (3)
One lecture and six hours of laboratory.
Prerequisites: Physics 311, 354 and Chemistry 200.
Stresses both laboratory experiments and techniques of data and error analysis. Experiments are taken from major areas of physics.

PHYS 360. Thermal Physics (3)
Prerequisites: Physics 350, Mathematics 342A, Physics 354 or Chemistry 410A.

PHYS 400A-400B. Classical Electromagnetism (3-3)
Prerequisites for Physics 400A: Physics 196 with a minimum grade of C; Physics 197 and Mathematics 242A. Physics 400A is prerequisite to Physics 400B.
Electrostatics, magnetostatics, electromagnetic induction, Maxwell’s equations, radiation and wave propagation.

PHYS 406. Optics (3)
Prerequisites: Physics 197, 197L, Mathematics 342B.
Reflection, refraction, matrix methods, dispersion, polarization, double refraction, interference, diffraction, Fourier optics, coherence theory, lasers, and holography with applications to optical instruments, wave propagation, and the nature of light.

PHYS 410. Quantum Mechanics (3)
Prerequisites: Physics 350, Mathematics 342B, Physics 354 or Chemistry 410A.
Mathematical and physical foundations of quantum theory in terms of wave and matrix mechanics. Applications to properties of atoms and solids.

PHYS 496. Selected Topics in Physics (1-4)
Prerequisites: Consent of instructor.
Selected topics in classical and modern physics. May be repeated with consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

PHYS 498A. Senior Research (1) Cr/NC
One discussion period and two additional hours per week to be arranged.
Prerequisites: Physics 357 and consent of instructor.
Selection and design of individual research project. Oral and written progress reports.

PHYS 498B. Senior Research (2)
Two discussion periods and four additional hours per week to be arranged.
Prerequisites: Physics 498A.
Laboratory work, progress reports, oral and written final reports.

PHYS 499. Special Study (1-3)
Individual study or laboratory work on a special problem in physics selected by the student. Each student will be assigned a member of the staff who will supervise his/her work. Credit, hours and topics to be arranged in each case. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

PHYS 516. Theory of Scientific Instrumentation (3)
Prerequisites: Physics 311, Mathematics 342B.
Fourier analysis with applications to scientific instrumentation, spectroscopy, and image processing: Z transforms and digital filtering; detection systems and their optimization of the signal-to-noise ratio.

PHYS 532. Condensed Matter Physics (3)
Prerequisites: Credit or concurrent registration in Physics 410.
Elastic, thermal, electric, magnetic and optical properties of solids. Introduction to the energy band theory of solids, with applications to semiconductors and metals.
PHYS 533. Experimental Techniques in Condensed Matter Physics (3)
One lecture and six hours of laboratory.
Prerequisites: Physics 357 and credit or concurrent registration in Physics 532.
Experiments in various fields of condensed matter such as x-ray diffraction, Hall effect, superconductivity, and electron paramagnetic resonance.

PHYS 534. Colloquium in Condensed Matter Physics (1) Cr/NC
Prerequisites: Credit or concurrent registration in Physics 532. Student and faculty research project presentations. Maximum credit three units.

PHYS 538. Polymer Science (3)
(Same course as Chemistry 538)
Prerequisites: Chemistry 200 or 202; and Chemistry 410B or Physics 360 or Mechanical Engineering 350 or 352.
Structure, synthesis, physical properties, and utilities of polymers.

PHYS 552. Modern Optics and Lasers (3)
Prerequisites: Physics 406 with minimum grade of C; credit or concurrent registration in Physics 400B.
Electromagnetic theory, matrix methods of optics, propagation of Gaussian beams, optical resonators, interaction of radiation and atomic systems, theory of laser oscillation, nonlinear optics, specific laser systems, optical detectors, applications of lasers in physics.

PHYS 553. Modern Optics Laboratory (3)
One lecture and six hours of laboratory.
Prerequisites: Physics 357 with minimum grade of C; Physics 406 with minimum grade of C; credit or concurrent registration in Physics 552.
Experiments in various fields of modern optics such as holography, physics of lasers, Fourier transform spectroscopy, Raman spectroscopy, light modulation techniques, fiber optics, spatial filtering, diffraction grating spectroscopy, radiometry, and nonlinear optics.

PHYS 554. Colloquium in Optics Research (1) Cr/NC
Prerequisites: Concurrent registration in Physics 498A or 498B or 797 and consent of instructor.
Student and faculty research project presentations. Maximum credit three units.

PHYS 560. Radiological Physics and Dosimetry (3)
Prerequisites: Credit or concurrent registration in Physics 354.
Ionizing radiation fields, interactions of radiation with matter, cavity theory, external radiation dosimetry.

PHYS 561. Nuclear Instrumentation (3)
One lecture and six hours of laboratory.
Prerequisites: Physics 311 and 560.
Radiation detection, measurement, and spectroscopy. Ionization chambers, GM and proportional counters, scintillation and semiconductor detectors, and thermoluminescent dosimetry.

PHYS 564. Nuclear Physics (3)
Prerequisites: Credit or concurrent registration in Physics 410.
Nuclear and elementary particle phenomena including nuclear structure, decay, and radioactivity. Nuclear reactions and devices. Experimental methods and applications.

PHYS 570. Relativity (3)
Prerequisites: Physics 354 and 400B.
Relative coordinates, Lorentz transformation, covariant formation of the laws of physics, applications of special relativity, introduction to curved space time, cosmology.

PHYS 580. Computational Physics (3)
Prerequisites: Physics 354; Computer Engineering 160 or Computer Science 106; and credit or concurrent registration in Physics 400A.
Computer programming for numerical solution of problems in classical mechanics, electromagnetism, optics, and quantum mechanics. Use of Fortran and C programming languages and the UNIX operating system. Incorporation of standard subroutines for linear algebra and differential equations into student written programs.

PHYS 596. Special Topics in Physics (1-4)
Prerequisites: Consent of instructor.
Selected topics in classical and modern physics. May be repeated with the consent of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Policy Studies in Language and Cross-Cultural Education (PLC)

In the College of Education

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

PLC 500. The Secondary School and Bilingual Education (3)
Prerequisites: Upper division standing. Bilingual education at the secondary levels, including roles, curricular models, organization, and legal justification. Must demonstrate bilingual competencies before conclusion of course and admission to program. Taught in Spanish.

PLC 415. Fieldwork in Bilingual Community Context (3)
Two lectures and two hours of activity.

PLC 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

PLC 499. Special Study (1-3)
Prerequisites: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

PLC 515. Theories and Practices in Multilingual Education (3)
Theoretical, legal, and historical context for multilingual education; policies and practices in bilingual programs; school and community profiles. Fieldwork required. Some sections taught in Spanish.

PLC 553. Language Assessment and Evaluation in Multicultural Settings (3)
Theories and methods of assessment and evaluation of diverse student populations including authentic and traditional models. Procedures for identification, placement, and monitoring of linguistically diverse students. Theories, models, and methods for program evaluation, achievement, and decision making.

PLC 596. Special Topics in Bilingual and Multicultural Education (1-3)
Prerequisites: Consent of instructor. Selected topics in bilingual, cross-cultural education and policy studies. May be repeated with new content. See Class Schedule for specific content. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

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Political Science (POL S)  
_In the College of Arts and Letters_

**LOWER DIVISION COURSES**

POL S 101. Introduction to American Politics in Global Perspective (3) [AI]  
Politics and basic political concepts as applied to the American political system. American political system as a constitutional democracy viewed in comparative perspective and within context of the global system. When taken with Political Science 102 will satisfy graduation requirement in American Institutions.

POL S 102. Introduction to American and California Government and Politics (3) [AI]  
Political processes and institutions in the United States and California. Considers a variety of public policy issues such as environmental quality, health, education, relation between government and business, taxation, and foreign affairs as reflected in the dynamics of national and state politics. When taken with Political Science 101 will satisfy graduation requirement in American Institutions. Credit will not be allowed for both Political Science 102 and 320.

POL S 103. Introduction to Comparative Politics (3) [GE]  
Analytical models and techniques for examination of problems of decision making and control in various political systems. Emphasis on patterns of political action in various cultural contexts.

POL S 201. Elementary Statistics for Political Science (3) [GE]  
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; course in intermediate algebra; Political Science 101 and 102. Quantitative methods in political science. Tabular and graphic presentation, measures of central tendency, simple correlation and sampling techniques. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Political Science 201; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Psychology 270; Sociology 201; Statistics 119, 250.

POL S 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

Field I: Political Theory

**UPPER DIVISION COURSES**

(Intended for Undergraduates)

POL S 301A-301B. History of Western Political Thought (3-3) [GE]  

POL S 302. Modern Political Thought (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Major writers of political thought in the last two centuries, including Burke, J.S. Mill, Freud, Marx, Weber, and Sartre. The following topics may be covered: conservatism, liberalism, utilitarianism, socialism, fascism, positivism and existentialism.

POL S 305. American Political Thought (3) [AI]  
The origin and development of American political ideas from colonial times to the present. Meets the graduation requirement in the United States Constitution. When taken with Political Science 320, 321 or 422, will also satisfy graduation requirements in American Institutions.

POL S 406. Democracy and Mass Society (3)  
Origin and development of theories of democracy and application of democratic ideas to contemporary political life.

**UPPER DIVISION COURSES**

(Also Acceptable for Advanced Degrees)

POL S 507. Marx and Marxism (3)  
Prerequisites: Three units in political theory. Marxism as an important tradition in political theory and with its history as a political movement, group, and societal conflict and mechanisms that can facilitate conflict resolution and bargained agreement.

POL S 510. Contemporary Political Thought (3)  
Prerequisites: Political Science 301B or 302 or 305 or 406. Contemporary political questions and theoretical attempts to address them. Debates about justice, citizenship, and multiculturalism; as well as controversies over nature and scope of politics. Formerly numbered Political Science 410.

Field II: American Politics

**UPPER DIVISION COURSES**

(Intended for Undergraduates)

POL S 321. State Politics (3) [AI]  
Politics and policy making at the state and local levels, relations among national, state, and local governments. Emphasis on California problems and politics. Meets the graduation requirement in California government. When taken with Political Science 305 or 320, will also satisfy graduation requirements in American Institutions.

POL S 322. Politics and Conflict (3)  
Prerequisites: Political Science 102. Theory and practice of process of formulating public policy; roles of administrators, legislators, courts, interest groups, and political parties; public agencies and public interest; case studies in formulating public policies. May include a substantial amount of material about foreign political systems.

POL S 334. Politics of the Environment (3)  
Analysis of political process as it shapes environmental policy in a world characterized by finite resources. Emphasis on expanding national and international claims made upon these resources. May include a substantial amount of material about foreign political systems.

POL S 335. Public Policy (3)  
Prerequisites: Political Science 101 and 102. Theory and practice of process of formulating public policy; roles of administrators, legislators, courts, interest groups, and political parties; public agencies and public interest; case studies in formulating public policies. May include a substantial amount of material about foreign political systems.

POL S 336. Women's Issues in the American Political Process (3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. American politics and public policy debates around women participating in politics, including support of and restrictions to feminism, legal strategies, and new understandings of public and private issues.

POL S 338. The Legislative Process (3)  
Detailed analysis of legislatures. Special attention devoted to impact of dynamic factors on formal procedures. May include a substantial amount of material about foreign political systems.

POL S 346. Law and the Political System (3)  
Forces influencing the making of law; relationship between social and legal change; nature and limits of the judicial function.
POL S 347A-347B. American Constitutional Law (3-3)
Substantive principles of American constitutional law. Rights and liberties protected by the Constitution against action of federal and state governments. May include problems of judicial review, federal system, separation of powers, nature of selected congressional-presidential powers. Satisfies graduation requirement in United States Constitution. (Formerly numbered Political Science 547A-547B.)

POL S 348. The Supreme Court and Contemporary Issues (3)
Recent decisions of the Supreme Court of the United States and their relationship to contemporary political and social issues. Not open to students with credit in both Political Science 347A and 347B.

POL S 422. Urban Politics (3) [AI]
Prerequisites: Political Science 101 or 102.
The processes by which social conflicts in American urban areas are represented and regulated. Urban political culture; ecology; group development and activity; power structures; and reform movements are surveyed. The character of the urban political "problem" and proposed solutions are evaluated. Meets graduation requirement in California state and local government. When taken with Political Science 305 or 320, will also satisfy all requirements in American Institutions.

POL S 425. Political Behavior (3)
Prerequisites: Political Science 102.
Social and attitudinal variables in political behavior. Quantitative research data as used in electoral studies. May include a substantial amount of material about foreign political systems.

POL S 426. Political Communication (3)
Communication as a political process; the effects of political communication on individuals and groups. May include a substantial amount of material about foreign political systems.

POL S 428. Campaigns and Elections (3)
Prerequisites: Political Science 102.
Campaigns and elections are essential to proper functioning of democracy. Theories concerning decision-making processes of individual voters, actors who seek to influence electoral outcomes, and the strategies used by organized political campaigns in attempt to affect voting behavior.

POL S 430. Immigration and Border Politics (3)
(Same course as Latin American Studies 430)
Prerequisites: Completion of the American Institutions requirement.
U.S. immigration and border politics within a global and historical perspective. Transformations of sovereignty, communities, identity, and rights within an era of mass migration and economic interdependence. Policy and popular debates about admission, border control, and the incorporation of migrants.

POL S 435. Power and Poverty in the United States (3)
Impact of government upon income inequality and poverty in the United States. Examines programs of U.S. welfare state in comparative perspective and their successes and failures. Minimum standards for distributive justice and inquiries into obligations we have toward our fellow citizens.

POL S 436. The American Presidency (3)
Prerequisites: Political Science 101 and 102.
Analysis of principal institutions, functions and problems of the presidency and federal executive branch. Attention given to presidential leadership, staffing, executive-legislative relations and policy formation.
Political Science

POL S 362. Governments and Politics of East Asia (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.
The internal political structure and foreign policies of China, Japan, and Korea.

POL S 363. Governments and Politics of the Middle East (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.
The governmental and political structures of representative states in the Middle East including Turkey, Israel and the Arab states.

POL S 364. Political Change in Modern Africa (3)
Dynamics of social and political change in modern Africa.

POL S 366. Latin American Politics (3)
(Same course as Latin American Studies 366)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.
Introduction to Latin American Politics. Knowledge of political change and political systems in Latin America, viewed historically and comparatively, using concepts and theories applicable to more general political analysis.

POL S 370. Political Violence (3) [GE]
Prerequisites: Political Science 101, 102 or 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.
Underlying conditions, expressions and consequences of violence within political systems.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

POL S 555. Comparative Political Systems (3)
Prerequisites: Political Science 103.
An examination of selected political and governmental systems for purposes of comparative study and analysis to determine similarities, differences and general patterns and universals among political systems.

POL S 560. Comparative Public Policy (3)
Prerequisites: Political Science 103 or 335.
How political, social, and economic forces shape public policy in selected countries. Focus on policies related to minority and immigrant populations, environment, or poverty.

POL S 562. Religion and Politics in Comparative Perspective (3)
Prerequisite: Political Science 103.
Various types of relationships between contemporary states and religious institutions. Concepts and theories on religion and politics. Cases of state-religion interaction.

POL S 564. Environmental Politics in Global Perspective (3)
Prerequisites: Upper division or graduate standing.
Comparative examination of environmental politics and policy in major world regions. Considers environmental politics with related policy challenges of economic growth, equity, and social justice. Course content varies with regional focus.

POL S 565. Nations and Nationalism (3)
Prerequisite: Upper division or graduate standing.
Debates surrounding origins, meaning and future of nationalism, and its most common embodiment, the nation-state form. Theoretical analyses of phenomenon and empirical case studies. (Formerly numbered Political Science 408, 468.)

POL S 566. Political Change in Latin America (3)
Prerequisites: Political Science 101 or 103.
General pattern of politics and political development in Latin America with an emphasis on those features which condition domestic and foreign policy making.

POL S 567. Political Systems of Latin America (3)
Prerequisites: Political Science 566.
Domestic and international politics of selected Latin American states.

POL S 568. Mexican Politics (3)
Prerequisites: Political Science 101 or 103.
Principal factors in Mexican governmental decision making. Ideology, political groups, tactics of leaders and governmental structure.

Field IV: International Politics

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

POL S 375. International Relations (3)
Dynamics of conflict and cooperation among national, international and transnational actors; contributing political, economic, and social factors.

POL S 380. Human Rights in a Global Perspective (3)
Historical development of international human rights standards and global, political, moral, and legal debates concerning when and how to implement human rights standards.

POL S 393. Institute on World Affairs (3)
Weekly lectures by visiting experts on contemporary international relations. Speakers may include scholars, diplomats, government officials, journalists, military officers and international business executives.

POL S 478. Conduct of American Foreign Relations (3)
Institutional arrangements by which American foreign policy decisions are formulated and implemented. Issues confronted by American foreign policy decision makers.

POL S 479. National Security Policy (3)
Objectives, instruments, and consequences of national security policy.

POL S 482. International Relations of the Latin American States (3)
Foreign policies of Latin American states; the Organization of American States; relationships with the United Nations and the United States.

POL S 485. Politics of Globalization (3)
Prerequisites: Political Science 103 or six units of political science.
Ideas and practice of globalization since end of World War II, focusing on political debate around contemporary changes in trade, production, and global social relations, and on impact of globalization on political institutions such as state, civil society, social movements, and democracy.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

POL S 575. International Relations of the Pacific Rim (3)
Prerequisites: Political Science 362 or 375.
Dynamics of conflict and cooperation among nations of the Pacific Rim. Stress on political and economics factors that shape interstate relations.

POL S 577. Principles of International Law (3)
The function of law in the international community. The historical development of the ideas and rules of international law and their place in the modern diplomatic and legal structure.
Elective Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

**POL S 320. American Institutions (3) [AI]**
The principles of the Constitution of the United States of America, and a survey of the political and social institutions which have developed under the Constitution. Meets the graduation requirement in the United States Constitution and California state and local government. When taken with Political Science 205, 321 or 422, will also satisfy graduation requirements in American Institutions. Credit will not be allowed for both Political Science 102 and 320.

**POL S 495. Internship in Local Politics (3)**
Prerequisites: Limited to senior political science majors; three upper division units within Field II. Seniors in the major choose internships within San Diego County in government agencies, offices of elected officials, or others approved by instructor. Requires 80 hours of fieldwork and periodic analytical essays.

**POL S 496. Experimental Topics (1-4)**
Selected topics. May be repeated with new content and used for field-specific credits for the major as approved by the department. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**POL S 497. Senior Thesis (3)**
Prerequisites: Limited to senior political science majors with a cumulative 3.0 in upper division political science courses. Senior thesis. Analysis of special topics.

**POL S 498. Internship in National Politics (12)**
Prerequisites: Consent of instructor. Students will be assigned to political agencies in Washington, D.C., such as congressional staffs, interest groups, executive agencies, legal/judicial offices and political party committees. For information on internship opportunities, especially state politics, refer to the internship section on the department Web site. Maximum credit six units applicable to the major in political science; maximum credit three units applicable to the minor in political science.

**POL S 499. Special Study (1-3)**
Prerequisites: Twelve upper division units in political science and consent of the instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

**POL S 515. Research Design and Analysis in Political Science (3)**
Prerequisites: Political Science 201. Does not fulfill undergraduate capstone major requirement. Modeling and design of formal research projects. Theoretical underpinnings and logic of social science analysis. Issues in measurement and scaling. Introduction to testing, including elementary statistical analysis of behavioral data.

**POL S 516. Statistics for Political Scientists (3)**
Prerequisites: Political Science 201. Does not fulfill undergraduate capstone major requirement. Basic concepts, theories, and methods that are utilized by political and other social scientists using statistics and microcomputers. Intermediate level introduction to statistical methods in political science.

**POL S 596. Topics in Political Science (1-3)**
Prerequisites: Upper division or graduate standing. Selected topics in political science. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES

Refer to the Graduate Bulletin.

Portuguese

In the Department of Spanish and Portuguese
Languages and Literatures
In the College of Arts and Letters

LOWER DIVISION COURSES

Native speakers of Portuguese will not receive credit for taking lower division courses in Portuguese except with advance approval from the department.

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course.

No credit will be given for Portuguese 101, 201, 301 taken out of sequence.

**PORT 101. Elementary / Intensive Portuguese I (5) [GE]**
Five lectures and one hour of laboratory. Prerequisites: Three years of high school Romance language or two semesters of college romance language. Pronunciation, oral practice, reading on Luso-Brazilian culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Portuguese unless the third course was completed five or more years ago. Not open to students with credit in Portuguese 201, 301, or higher-numbered Portuguese course.

**PORT 201. Elementary/Intensive Portuguese II (5) [GE]**
Continuation of Portuguese 101. Not open to students who have completed four years of high school Portuguese unless the fourth course was completed five or more years ago. Not open to students with credit in Portuguese 301 or higher-numbered Portuguese course.

**PORT 296. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**PORT 299. Special Study (1-3)**
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Portuguese are taught in Portuguese unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course.

**PORT 301. Intermediate Portuguese Grammar and Composition (3) [GE]**
Prerequisites: Portuguese 201; and completion of the General Education requirement in Foundations II.C., Humanities. Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.

**PORT 307. Brazilian Music and Culture (3) [GE]**
(Same course as Latin American Studies 307)
Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors. Brazilian music and culture with emphasis on religious and cultural practices of candomble, capoeira, carnival, and notions of race and class in contemporary Brazilian funk and hip-hop. Taught in English.
PORT 401. Advanced Portuguese Grammar and Composition (3) [GE]
Prerequisites: Portuguese 301, and completion of the General Education requirement in Foundations II, C, Humanities.

PORT 443. Contemporary Luso-Brazilian Civilization (3)
Prerequisites: Portuguese 401.

PORT 496. Experimental Topics (1-4)
Topics in Lusophone language, literature, culture, and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

PORT 499. Special Study (1-3)
Individually designed study. Maximum credit six units.

PORT 534. Portuguese Literature (3)
Prerequisites: Portuguese 401.

PORT 535. Brazilian Literature (3)
Prerequisites: Portuguese 401.

PORT 536. Selected Studies in Portuguese (3)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

PORT 537. Basic Portuguese (3)
Prerequisites: Portuguese 401.

PORT 538. Advanced Portuguese Grammar and Composition (3)
Prerequisites: Consent of instructor.

PORT 539. Special Study (1-3)
Individually designed study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

PSY 201. Academic and Career Opportunities in Psychology (1) Cr/NC
Prerequisites: Psychology 101. Proof of completion of prerequisite required: Copy of transcript.

PSY 203. Developmental Psychology (3)
Prerequisites: Psychology 101 and completion of 30 units. Information about careers in psychology. Includes identification of career-related strengths and interests and information on post-baccalaureate options in psychology and related fields. Introduction to resources in Psychology Undergraduate Advising and Career Services.

PSY 211. Learning (3)
Prerequisites: Psychology 101.

PSY 250. Faculty Student Mentoring Program (1) Cr/NC
Provides upper class mentors for freshman and community college transfer students. Mentors assist students in locating campus resources, linking them with departmental advisers, identifying tutors in science courses and encouraging students to participate in workshops. Maximum credit two units.

PSY 260. Introduction to Physiological Psychology (3)
Prerequisites: Psychology 101 and Biology 100. Proof of completion of prerequisites required: Copy of transcript.

PSY 270. Statistical Methods in Psychology (3) [GE]
Prerequisites: Psychology 101 and concurrent registration in Psychology 271; satisfaction of the Entry-Level Mathematics requirement. Proof of completion of prerequisites required: Copy of ELM score or verification of exemption, and verification of registration in Psychology 271. Quantitative methods in psychology for producing, analyzing, and interpreting data. Sampling, basic research designs, describing distributions through graphs and quantitative indices, linear correlation and regression, applications of normal probability curve, confidence intervals, and tests of significance. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Psychology 270; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Sociology 201; Statistics 119 and 250.
PSY 271. Data Analysis in Psychology (1)
Two hours of laboratory in computer laboratory.
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and credit or concurrent registration in Psychology 270.

PSY 296. Experimental Topics (1-3)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Interested for Undergraduates)

NOTE: To declare the psychology major, students must report in person to the Psychology Undergraduate Advising Office and provide the Undergraduate Adviser with evidence of having completed the requirements. Informal transcripts may be used by the Psychology Undergraduate Office to determine declaration of the major. Students should declare the major as soon as they have completed the necessary requirements and should complete no more than 12 units of upper division psychology courses prior to declaring the major. Students who are planning to transfer to SDSU should visit the Psychology Undergraduate Office and develop a plan for declaring the major during the semester prior to enrolling.

PSY 301. Introduction to Research Methods in Psychology (4)
Three lectures and two hours of laboratory.
Prerequisites: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course. Psychology 101, 270, and 271.

PSY 316. Behavior Modification (3)
(Required only at IVC)
Prerequisites: Psychology 101. Recommended: Psychology 211. Contingencies of reinforcement, stimulus control, response shaping, aversive control, and other basic principles of operant behavior applied to understanding and modification of human behavior.

PSY 319. Industrial and Organizational Psychology (3)
Prerequisites: Psychology 101 and 270. Proof of completion of prerequisites required: Copy of transcript. Broad-based survey of various content areas of industrial (e.g. selection, appraisal) and organizational (e.g. motivation, leadership) psychology. Underlying psychological principles that influence human behavior in the workplace. Not open to students with credit in Psychology 320 or 321.

PSY 320. Personnel and Industrial Psychology (3)
Prerequisites: Psychology 319. Proof of completion of prerequisites required: Copy of transcript. Psychological principles applied to industrial problems of selection, placement and training.

PSY 321. Organizational Psychology (3)
Prerequisites: Psychology 319. Proof of completion of prerequisites required: Copy of transcript. Human behavior in context of organizational life. Factors related to effectiveness of individuals and groups within organizations, including organization design, leadership and control, motivation, cooperation, and conflict. Not open to students with credit in Management 350 or Public Administration 340.

PSY 330. Psychology of Infant and Child Development (3)
Prerequisites: Psychology 101 and 230. Proof of completion of prerequisite required for Psychology 230: Copy of transcript. Psychological development of normal child from infancy through childhood focusing on physical, social, cognitive, and linguistic aspects of development.

PSY 332. Psychology of Adolescent and Early Adult Development (3)
Prerequisites: Psychology 101 and 230. Proof of completion of prerequisite required for Psychology 230: Copy of transcript. Psychological development of normal individual from adolescence through early adulthood focusing on physical, social, and cognitive aspects of development.

PSY 333. Developmental Psychopathology (3)

PSY 340. Social Psychology (3) [GE]
Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required. Evolution of psychology of Chicanos with emphasis on understanding underlying roots and foundations. Empirical research conducted with Chicanos in areas of psychology, psychiatry, and mental health.

PSY 344. Psychology and Culture (3)
Prerequisites: Psychology 101. Impact of culture in each of psychology’s major areas, theories, and empirical findings.

PSY 345. Chicana and Chicano Psychology (3)
Prerequisites: Psychology 101. Evolution of psychology of Chicanos with emphasis on understanding underlying roots and foundations. Empirical research conducted with Chicanos in areas of psychology, psychiatry, and mental health.

PSY 350. Abnormal Psychology (3)
Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required. Causes and treatment of abnormal behavior with emphasis on major behavior disorders.

PSY 351. Psychology of Personality (3) [GE]
Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required. Major theoretical approaches to individual differences and the study of the person. Techniques of personality assessment. Selected research findings.

PSY 355. Psychology of Human Sexual Behavior (3)
Prerequisites: Psychology 101. Evaluation of behavioral and physiological data of normal, aberrant, and dysfunctional human sexual behavior, including description of available treatment methods.

PSY 360. Behavioral Neuroscience (3)
Prerequisites: Psychology 101 and 260. Proof of completion of prerequisites required: Copy of transcript. Biological and physiological underpinnings of behavior; genetics, hormones, transmitters, plasticity/regeneration, development, and metabolism/nutrition. Analysis of their role in normal behavior, psychopathology, neurological disorders, and treatment of behavioral disturbances.
PSY 361. Neuropsychology (3)
Prerequisites: Psychology 101 and 260. Proof of completion of prerequisites required: Copy of transcript.
Characterization of human brain-behavior relationships derived from neuropsychometric studies of healthy, neuropsychiatric, and brain damaged populations. Emphasis on functional neuroanatomy and the effects of abnormal brain development and disease on processes such as cognition, memory, language, visual-spatial, and other functions.

PSY 362. Cognitive Neuroscience (3)
Prerequisites: Psychology 101 and 260. Proof of completion of prerequisites required: Copy of transcript.
Functional organization of the human brain, including sensorimotor and cognitive systems and their functional interactions; development and evolution; normal and pathological plasticity. Approaches applied to healthy human brain, such as neuroimaging and event-related potentials.

PSY 365. Drugs and Behavior (3)
Prerequisites: Psychology 260. Fundamentals of regulation, administration, tolerance, dependence, and physiological activity of drugs. Effects of stimulants, depressants, opiates, psychedelics, and psychotherapeutic drugs on the nervous system and on cognitive, personality, and behavioral functioning.

PSY 370. Psychological Testing and Measurement (3)
Prerequisites: Grade of B or better in Psychology 270 or equivalent statistics course; grade of B or better in Psychology 301.
Prerequisites: Completion of prerequisite required:
Copy of transcript.
Note: Students electing to take Psychology 410 for the methods requirement may petition waiver of the Psychology 301 prerequisite by permission of the undergraduate adviser.
Measurement theory and the basic principles of testing. Selection, construction and critical evaluation of group tests of intelligence, personality, aptitude, interest and achievement.

PSY 380. Cognitive Psychology (3)
Prerequisites: Psychology 101. Recommended: Psychology 211. Theory and research on attention, learning, memory, thinking, understanding, and language.

PSY 388. Sensation and Perception (3)
Prerequisites: Psychology 101 and 260. Theory and research in sensory and perceptual processes.

PSY 407. Health Psychology (3)
Prerequisites: Psychology 211 and 270. Proof of completion of prerequisites required: Copy of transcript.
Behavioral components of major illnesses and causes of death and disability. Primary prevention of health problems through behavior change and psychological features of the health care system.

PSY 410. Laboratory in Experimental Psychology (5)
Two lectures and six hours of activity.
Prerequisites: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course. Psychology 211, a grade of B or better in Psychology 270 or equivalent statistics course, and Psychology 271. Proof of completion of prerequisites required: Copy of transcript.
Understanding of experimental design, quantitative methods, and experimental reports as they are applied to all areas of psychology.

PSY 412. Advanced Laboratory in Social Psychology (5)
Two lectures and six hours of activity.
Prerequisites: Psychology 410. Proof of completion of prerequisites required: Copy of transcript.
Experimental literature, assigned and original laboratory projects in the field of social psychology.

PSY 442. Prejudice and Stereotypes (3)
Prerequisites: Psychology 340. Proof of completion of prerequisite required: Copy of transcript.
Contemporary theories and research on prejudice and stereotyping to include origin and forms of phenomena, consequences, and approaches aimed at reducing them.

PSY 446. Advanced Topics in Social Psychology (3)
Prerequisites: Psychology 340. Proof of completion of prerequisite required: Copy of transcript.
Selected areas in social psychology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

PSY 452. Introduction to Counseling and Therapy (3)
Prerequisites: Psychology 350 or 351. Proof of completion of prerequisite required: Copy of transcript.
Theory, methods, and research in psychological approaches to personality and behavior change. Not open to students with credit in Counseling and School Psychology 660.

PSY 456. Psychology of Death and Bereavement (3)
Latest psychological research and clinical practice in the area of death and dying, geared to assisting the student in appropriate ways of aiding both the dying and the bereaved in coming to terms with death.

PSY 470. Intermediate Statistics for Psychological Research (3)
Prerequisites: Grade of B or better in Psychology 270 and 271, grade of B or better in Psychology 301 or 410.

PSY 491. Academic or Psychological Counseling Experiences (3) Cr/NC
Prerequisites: Upper division psychology major with a 3.0 minimum grade point average and consent of the psychology undergraduate coordinator.
Individual supervision of academic or psychological counseling experiences, geared to acquisition of counseling and communication skills. May be repeated with approval of psychology undergraduate coordinator. Maximum credit six units. No more than nine units of Psychology 491, 494, 495 may be counted toward the major and no more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 492. Responsible Conduct in Scientific Research (1) Cr/NC
Prerequisites: At least one introductory level science course.
Responsible conduct in scientific research. Topics include conflict of interest, plagiarism, reporting of scientific results, authorship, responsible use and care of animals, responsible use of human subjects.

PSY 494. Special Study: Techniques for Teaching and Tutoring in Psychology (2) Cr/NC
Prerequisites: Consent of instructor.
Practical knowledge and experience in psychology instruction and advanced content in a specific area of psychology. May be repeated with new content. Maximum credit four units. No more than nine units of Psychology 491, 494, 495 may be counted toward the major and no more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 495. Readings and Practice in Companionship Therapy (3) Cr/NC
Prerequisites: Psychology 350 and three units from Psychology 230, 340, or 351.
Proof of completion of prerequisites required: Copy of transcript.
Work with troubled or potentially troubled clients from selected community agencies. May be repeated with approval of psychology undergraduate coordinator. Maximum credit six units. No more than nine units of Psychology 491, 494, 495 may be counted toward the major and no more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 496. Selected Topics in Psychology (1-4)
Prerequisites: Psychology 101.
Intensive study in specific areas of psychology. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.
PSY 497. Senior Project (1-3)
Prerequisites: Twelve units of psychology and consent of instructor. Individual investigation and APA-style report on a research project. Maximum credit six units. No more than nine units of Psychology 497 and 499 may be counted toward the major and no more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 498. Undergraduate Honors Thesis (3-6)
Prerequisites: Psychology 410, 3.5 overall GPA, 3.75 GPA in major, and consent of honors coordinator. Directed research in psychology and completion of honors thesis. Required of students graduating with a Certificate of Recognition in Psychology Honors Thesis. May be repeated for a maximum of six units.

PSY 499. Special Study (1-3) Cr/NC
Individual study, including library or laboratory research and a written report. Maximum credit six units. No more than nine units of Psychology 497 and 499 may be counted toward the major and no more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

PSY 501. History of Psychology (3)
Limited to graduate students or psychology majors with senior standing. The historical background of modern psychology.

PSY 502. Philosophical Issues in Psychology (3)
Prerequisites: Six units of psychology. Mind-brain relationship and other topics at the interface of psychology and philosophy.

PSY 561. Advanced Neuropsychology (3)
Prerequisites: Psychology 360 or 361 or grade of B or better in Psychology 260. Biological bases of neuropsychological function and dysfunction, relationships between brain structure and function, neuropsychological assessment tools.

PSY 587. Advanced Principles of Learning and Cognition (3)
Prerequisites: Psychology 211, 270, and 380. Limited to graduate students or psychology majors with senior standing. Empirical data, basic principles and theoretical positions of major theorists in learning and cognitive psychology.

PSY 596. Selected Topics in Psychology (1-3)
Prerequisites: Psychology 101 and consent of instructor. Intensive study in specific areas of psychology. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Public Administration (PA)

In the School of Public Affairs
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSE

PA 200. The Urban Scene (3)
Key issues in public administration, social policy, and city planning. Emphasis on government structure and public decision-making process, organizational behavior, effectiveness of criminal justice policies, zoning, and land use considerations.

UPPER DIVISION COURSES (Intended for Undergraduates)

PA 301. Concepts and Issues in Public Administration (3)
Theory and practice of governmental administration in differing environments, role of administrators in public policy, issues facing administrators, techniques of administration.

PA 310. Management of Urban Governments (3)
Problems of local units of government in the urban environment. Organization and function of local agencies. Emphasis on California.

PA 312. Management of State Governments (3)
Administrative and constitutional problems of state management in the American federal system. Emphasis on California.

PA 315. Management of the Federal Government (3)
Prerequisites: Public Administration 301. Problems in the administration of the federal government. Leadership, specialization, unity of command, and oversight.

PA 320. Introduction to Urban Planning (3)
An introduction to community planning: regional, county, and city. Consideration of the master plan including its purposes, contents, and method of adoption.

PA 330. Public Personnel Administration (3)
Analysis of personnel problems. Supervision and management of public employees and public organizations in an age of change.

PA 340. Administrative Behavior (3)
Social, psychological, and behavioral theories of organization; concepts of administrative leadership; organization and the individual; emphasis on governmental organizations. Not open to students with credit in Psychology 321.

PA 341. Administrative Management (3)
Areas and problems of administrative research. Management and operations in public organizations including forecasting, resource allocation, planning and administration of programs, preparation of administrative reports. Quantitative models of managerial decision making.

PA 350. Contemporary Urban Issues (3)
Focus on urban areas and urbanism from a public policy perspective; course examines and critiques the physical, economic, social and political dimensions of contemporary American cities utilizing a multidisciplinary approach.

PA 420. Methods of Analysis in City Planning (3)
Prerequisites: Public Administration 320 and basic statistics course. Methods of primary data collection and analysis of secondary data sources for problem solving in city planning, techniques associated with urban design and urban development.

PA 440. Microcomputer Applications in Criminal Justice and Public Administration (3)
(Offered only at IVC)
Two lectures and three hours of laboratory. Prerequisites: Limited to criminal justice administration and public administration majors. Operation and use of microcomputer hardware and software in criminal justice. Laboratory instruction focuses on applicability of programs to criminal justice operations.

PA 450. Fiscal and Budgetary Policy (3)
Prerequisites: Public Administration 301, Economics 101 and 102. Policies of fiscal administration and budgeting; political implications of the governmental budget process; revenue, debt, and treasury management; the functions of accounting and financial reporting.

PA 460. Administration and Public Policy Development (3)
Process of formulating public policy with emphasis on the role of public agencies.
UPPER DIVISION COURSES

P A 480. Leadership and Public Sector (3)
Prerequisites: Public Administration 301.
Leaders as energizing forces for public administration. Analysis of leadership theories and case studies.

P A 485. Planning and Public Policy in U.S.-Mexico Border Region (3)
Prerequisites: Public Administration 301.
City planning, regional, and public policy issues in the binational Mexico-U.S. border region. Policy analysis: macro/regional and micro/urban.

P A 490. Community Organizing in a Diverse Society (3)
Prerequisites: Upper division standing.
Understanding of barriers, strategies, and benefits of community organizing in diverse communities. Studies of successful "grassroots" leaders and their political and cultural environments for purpose of analyzing and applying concepts of organizing.

P A 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

P A 497. Investigation and Report (3)
Prerequisites: Consent of instructor.
Analysis of special topics. Admission by permission of instructor.

P A 498. Internship in Public Administration (2-6) Cr/NC
Prerequisites: Public Administration 301, 330, 340, 341, 450, and all lower division required courses; senior standing and a "B" (3.0) average in the major.
Students will be assigned to various government agencies and will work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences. Maximum credit six units.

P A 499. Special Study (1-3)
Prerequisites: Twelve upper division units in public administration. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

P A 510. Intergovernmental Relations in the United States (3)
Prerequisites: Public Administration 310 or 312 or 315.
Constitution, political and administrative characteristics of American federalism, including regionalism, interstate compacts, and grants-in-aid.

P A 512. The Metropolitan Area (3)
Prerequisites: Public Administration 310 or 312.
Problems of government and administration arising from population patterns and physical and social structures of metropolitan areas.

P A 520. Decision Making in the Urban Community (3)
Prerequisites: Public Administration 310.
Processes of decision making in the management of urban communities.

P A 525. The U.S. City Planning Process (3)
Prerequisites: Public Administration 320 or graduate standing.
Description and critique of traditional city planning process; styles and roles of city planner; city planning values and ethics.

P A 530. Negotiation and Bargaining in the Public Service (3)
Prerequisites: Public Administration 301.
Specific issues such as strategies, the effects of threat, the physical setting, use of a third-party observer and theories of advocacy. Emphasis on analyzing simulations of the bargaining process and developing effective negotiation skills.

P A 531. Governmental Employer-Employee Relations (3)
Prerequisites: Public Administration 330.
History in the major. Special issues such as strategies, the effects of threat, the physical setting, use of a third-party observer and theories of advocacy. Emphasis on analyzing simulations of the bargaining process and developing effective negotiation skills.

P A 540. Public Administrative Systems Analysis (3)
Prerequisites: Public Administration 301 and a statistics course.
Systems and organization analysis: work standards and units; procedures analysis; administrative planning.

P A 550. Budgetary and Financial Administration in the Public Sector (3)
Prerequisites: Public Administration 301 and 450.
Management trends in public sector financial administration; budgetary procedures and techniques; control and monitoring systems. Cash management, capital projects management, debt administration, disbursement, funds management, and auditing.

P A 580. Comparative Public Administration (3)
Prerequisites: Public Administration 301.
Administrative organization and process of selected foreign and American governments. Analysis of the cultural basis of administrative systems.

GRADUATE COURSES IN PUBLIC ADMINISTRATION and CITY PLANNING
Refer to the Graduate Bulletin.

Public Health (P H)
In the College of Health and Human Services

NOTE: Students who are not pre-health science or health science majors may take the following public health courses with consent of instructor.

LOWER DIVISION COURSES

P H 101. Introduction to Public Health (3)
Epidemics, environment, and community health challenges, including educational, political, environmental, regulatory, and organizational factors that support health of population groups and communities. (Formerly numbered Community Health Education 101.)

P H 290. Health Professions and Organizations (3)
Prerequisites: Credit or concurrent registration in Public Health 101.
Health organization and agencies, locally, regionally, nationally, and internationally. Types of public health settings, and responsibilities in different types of health careers and public health positions. (Formerly numbered Community Health Education 290.)

P H 294. Substance Abuse and Public Health (3)
Threats to public health by use and abuse of psychoactive drugs including alcohol, nicotine, cannabis, hallucinogens, narcotics, designer and prescription drugs; trends in prevention, treatment and early intervention programs with legal, historical, and political aspects of addiction. (Formerly numbered Community Health Education 574.)

P H 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

P H 301. Foundations and Practice of Public Health (3)
Prerequisites: Public Health 101 and 290 with grades of B or better. Open to health science majors and minors.
Organization of public health field, role of government and voluntary agencies in protecting and promoting health of individuals, groups, and communities. (Formerly numbered Community Health Education 560.)
P H 302. Communicable and Chronic Disease (3)
Prerequisites: Credit or concurrent registration in Public Health 301. Open to health science majors and minors.
Impact of infectious and chronic diseases on health of the population. Epidemiologic methods, behavioral and biologic determinants, modes of transmission, and risk factors. (Formerly numbered Community Health Education 470.)

P H 303. Health Behavior in Community Settings (3)
Prerequisites: Credit or concurrent registration in Public Health 301. Open to health science majors and minors.
Behavior change theory, principles, predictive models, and their application to health behavior change programs. Review of research methods related to individuals and communities. Analysis of major health behavior change programs. (Formerly numbered Community Health Education 401.)

P H 304. Environment and Public Health (3)
Prerequisites: Credit or concurrent registration in Public Health 301. Open to health science majors and minors.
Epidemiologic methods, behavioral and biologic determinants, modes of transmission, and risk factors. (Formerly numbered Community Health Education 301.)

P H 305. Medical Care Organization and Delivery (3)
Prerequisites: Credit or concurrent registration in Public Health 301. Open to health science majors and minors.
Organizational, economic, financial, political, and cultural factors affecting finance and delivery of health and medical services in the U.S. Topics include insurance, managed care, reimbursement, private and public programs, and regulation. (Formerly numbered Community Health Education 561.)

P H 331. Emergency Preparedness and Disaster Response (3)
Prerequisites: Public Health 301.
Roles and responsibilities of public health in disaster preparation, mitigation, planning, and response to epidemics, pandemics, natural disasters and bioterrorism, includes disaster assessment, surveillance, risk management, and principles of disaster planning. (Formerly numbered Community Health Education 331.)

P H 345. Injury Prevention (3)
Prerequisites: Public Health 301.
Epidemiology of traumatic injury within developmental, social, legislative, economic, and political contexts. Behavioral dilemmas in injury prevention and risk management. (Formerly numbered Community Health Education 345.)

P H 353. Human Sexuality and Disease (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Development of sexual values, attitudes, and behaviors across ages, including evolution and occurrence of sexually transmitted infections worldwide. Focus on biological, medical, psychological, sociocultural, and political factors. Not open to students with credit in Community Health Education 353 and 475. (Formerly numbered Community Health Education 353.)

P H 362. International Health (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Population dynamics, vital statistics, global disease patterns, and analysis of variations among nations and cultures with respect to health problems and health care services. (Formerly numbered Community Health Education 362.)

P H 402. Public Health Communications (3)
Prerequisites: Public Health 301. Open only to health science major.
Effective communication techniques used in public health campaigns, social marketing, and risk communication. Use of technology to design and conduct public health campaigns which focus on recognizing and overcoming communication barriers, including cross-cultural issues. (Formerly numbered Community Health Education 402.)

P H 450. Public Health Policy (3)
Prerequisites: Credit or concurrent registration in Public Health 302, 303, 304, 305.
Political, economic, cultural, institutional, and social factors influencing development and implementation of policy. U.S. and international private and public health organizations and their roles in shaping health policy. Public health advocacy by organizations.

P H 490A. Health Data Analysis (3)
Prerequisites: Public Health 301 and credit or concurrent registration in Public Health 302. Open only to health science major.
Identifying, retrieving, and using health data, with emphasis on statistical applications and interpretation of results for changing policy and health programs.

P H 490B. Planning Public Health Programs (3)
Prerequisites: Public Health 301 and credit or concurrent registration in Public Health 490A. Open only to health science major.
Public health programming models, including community needs assessment, goals, objectives, and strategies for effective public health interventions. Preparation of grant proposals. (Formerly numbered Community Health Education 406.)

P H 490C. Public Health Program Evaluation (3)
Prerequisites: Public Health 301, 490A, and credit or concurrent registration in Public Health 490B. Open only to health science major.
Quantitative and qualitative evaluation methods in public health programs. (Formerly numbered Community Health Education 490.)

P H 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

P H 497. Supervised Specialization in Public Health (1-6)
Prerequisites: Senior standing in public health and Public Health 301, 302, 303, 304, 305.
Tailored experience in one of three areas of specialization selected in consultation with major adviser: Preprofessional, Research, or Practice. Maximum credit six units. (Formerly numbered Community Health Education 497.)

P H 499. Special Study (1-3)
Prerequisites: Consent of special study adviser. Individual study. Maximum credit six units.

RECRUCTION AND TOURISM MANAGEMENT (RTM)

In the School of Hospitality and Tourism Management
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

RTM 101. Recreation and Tourism Management (3)
Role of recreation and tourism systems in contemporary society. History and philosophy, scope of services, facilities, programs, personnel, and evaluation. (Formerly numbered Recreation 101.)

RTM 107. Recreation Programming and Leadership (4)
Three lectures and three hours of laboratory. Theories, principles, and techniques of group leadership, group dynamics, communication, problem-solving, creativity, program planning, and publicity as they relate to selected recreation systems. Student ePortfolio is initiated. (Formerly numbered Recreation 107.)
RTM 284. Supervised Field Work (3) Cr/NC
Prerequisites: Consent of instructor or department chair, credit or concurrent registration in Recreation and Tourism Management 107, and 125 hours experience in recreation leadership.
Observation and participation in community recreation leadership. Practical experience in a variety of recreational settings. Eight hours per week at an agency. (Formerly numbered Recreation 284.)

RTM 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

RTM 304. Leisure and Tourism (3) [GE]
(Selected sections offered as distance education)
(Summer 2008: One section offered as distance education)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Study of leisure and its impact on contemporary life; issues affecting recreation in today’s urbanized society. (Formerly numbered Recreation 204, 304.)

RTM 305. Wilderness and the Leisure Experience (3) [GE]
Prerequisites: Biology 100 or 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Values of protected landscapes to individuals and society. Scientific, political, international, and ethical dimensions of natural landscapes. Implications for protection, visitor management, and sustainable tourism. (Formerly numbered Recreation 205, 305.)

RTM 340. Conduct of Recreational Sports (3)
Three lectures plus outside practical experience in the conduct of recreational sports programs.
Organization of competition, community sports programs, administration of intramural athletics, and techniques of officiating. (Formerly numbered Recreation 340.)

RTM 351. Recreation Therapy and Special Populations (3)
Sociopsychological aspects of special populations and their implications for leisure pursuits. Field trips may be included. (Formerly numbered Recreation 351.)

RTM 361. Scientific Foundations of Recreation Therapy (3)
Prerequisites: Recreation and Tourism Management 351 required for recreation majors; open to others with consent of instructor.
Theoretical principles of therapy and prevention. Survey of medical and psychiatric pathology and terminology. (Formerly numbered Recreation 361.)

RTM 371. Professional Foundations of Recreation Therapy (3)
Prerequisites: Recreation and Tourism Management 351 required for recreation majors; open to others with consent of instructor.
Analysis of present-day policies, programs, implementation and future aspects of professional principles of recreation therapy. (Formerly numbered Recreation 371.)

RTM 396W. Writing in Recreation Settings (3)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or an earned C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
Theory and practice of writing in the field of recreation and parks with application to various settings. (Formerly numbered Recreation 396W.)

RTM 404. Cross-Cultural Perspectives of Tourism (3) [GE]
(Summer 2008: One section offered as distance education)
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Concepts, definitions, and measures of essential cultural components of tourism. Integrated view of interrelated socio-cultural tourism issues with an understanding and appreciation of diverse cultures. (Formerly numbered Recreation 404.)

RTM 413. Cultural Tourism (3)
Two lectures and two hours of activity.
Prerequisites: Recreation and Tourism Management 107. Concepts of cultural tourism and cultural heritage management. Strategies for planning of cultural tourism resources and for development of cultural or heritage assets. (Formerly numbered Hospitality and Tourism Management 413.)

RTM 468. Marketing, Financing, and Assessment in Recreation and Tourism Management (3)
Prerequisite: Recreation and Tourism Management 475.
Marketing, financing, and assessment specifically related to recreation and tourism management to include services development, pricing, promotion, distribution; budget development, revenue generation, assets management, controls; evaluation and research process as they relate to service development and delivery.

RTM 469. Administration and Operation of Recreation and Tourism Agencies (3)
Prerequisite: Recreation and Tourism Management 470 or 475. Administrative and operational aspects of managing and leading in recreation and tourism agencies to include liability, risk management, administrative regulations; information/decision systems; in organizations; strategic planning; operation of facilities/areas; human resource functions related to successful service delivery.

RTM 470. Global Travel and Tourism Management (3)
Prerequisites: Recreation and Tourism Management 101 or Hospitality and Tourism Management 201. Global tourism management, economics, ethics, marketing, development, and sustainability. Social, cultural, and environmental impact indicators. Organization of global tourism and its components. (Formerly numbered Recreation 470.)

RTM 475. Commercial Recreation and Attractions Management (3)
Analysis of commercial recreation field, including design, development, programming and marketing aspects of various commercial recreation enterprises. (Formerly numbered Recreation 475.)

RTM 477. Tourism Planning (3)
Prerequisite: Recreation and Tourism Management 101.
Nature and scope of tourism planning including planning theory and approaches, principles, and processes. Case studies utilized for analysis of impacts of tourism, amenities, attractions, services, facilities, transportation, and information-direction. (Formerly numbered Recreation 477.)

RTM 483. Outdoor Education and Camp Administration (3)
Prerequisites: Recreation and Tourism Management 101.
Philosophy, theory, methods, application, and scope of outdoor education in recreation and ecotourism camp settings. Management of resident, day, and travel camps. (Formerly numbered Recreation 483.)

RTM 484. Directed Leadership (3) Cr/NC
One lecture and eight hours of supervised activity.
Prerequisites: Recreation and Tourism Management 284.
Supervised leadership experience in public and private recreation agencies. Maximum credit six units. (Formerly numbered Recreation 484.)

RTM 485. Outdoor Recreation Planning and Policy (3)
Nature and scope of recreation in nonurban areas. Public demand for recreation and its impact on natural resources. Management, planning, research and operation of regional and national park and recreation areas. (Formerly numbered Recreation 485.)
### LOWER DIVISION COURSES

**REL S 100. Exploring the Bible (3) [GE]**  
Basic content and themes of the Hebrew Bible and New Testament using methods of contemporary biblical studies. Attention to ancient Near Eastern and Greco-Roman cultural settings as well as the impact of the Bible on contemporary culture.

**REL S 101. World Religions (3) [GE]**  
Major world and selected tribal traditions from primal times to present. Broad historical development and philosophical overview including founders, teachings, beliefs, practices, and interactions with culture, such as art, literature, politics.

**REL S 103. American Religious Diversity (3) [GE]**  
Religious identities and traditions of diverse peoples living in the US. Major world religions in context of contemporary multicultural America. Religions of indigenous peoples and religious movements which have arisen in US. Not open to students with credit in Religious Studies 102.

**REL S 296. Experimental Topics (1–4)**  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

### UPPER DIVISION COURSES

**REL S 301. Hebrew Bible (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Literature, history, major themes of Bible; methods and concerns of contemporary biblical studies. Situates folkloric, political, heroic, poetic, and religious meanings of texts among their original audiences.

**REL S 305. The New Testament (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  

**REL S 310. The Qur’an (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Major themes of Qur’an including cosmology, eschatology, good and evil, gender, God and monotheism, People of the Book (Jews and Christians), and role of religion in society. Attention to historical period in which the Qur’an was compiled.

**REL S 315. Sacred Texts of South Asia (3)**  
Prerequisites: Three units of religious studies, Primary texts from sacred literatures of Hinduism, Buddhism, Jainism, and Sikhism. Methods of interpretation, issues of translation, and placement of sacred texts in their social and historical contexts.

### Area 1: Sacred Texts

**UPPER DIVISION COURSES**  
(Also Acceptable for Advanced Degrees)

**RTM 487. Environmental and Cultural Interpretation (3)**  
Prerequisites: Recreation and Tourism Management 101.  
Philosophy, theory, methods, application, and scope of cultural interpretation in recreation and tourism settings. (Formerly numbered Recreation 487.)

**RTM 489. Outdoor Leadership and Adventure Programming (3)**  
Prerequisites: Recreation and Tourism Management 305.  
Theoretical principles and experience in leadership, judgment, and decision making in outdoor adventure programming. (Formerly numbered Recreation 489.)

**RTM 496. Experimental Topics (1–4)**  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**RTM 498. Internship in Recreation and Tourism Management (6 or 12) Cr/NC**  
Twenty off-campus hours required per week for 6-unit program, or 40 off-campus hours required per week for 12-unit programs.  
Prerequisites: Consent of instructor or department chair, completion of all required lower division recreation courses, and completion of both Standard or Multimedia First Aid certificate and CPR certificate by end of semester.  
For six unit internship: 250 hours of professional work experience in recreation and tourism management. For 12 unit internship: 500 hours required Credit for course requires completion of ePortfolio. Maximum credit 12 units. (Formerly numbered Recreation 498.)

**RTM 499. Special Study (1-3)**  
Prerequisites: Consent of special study adviser.  
Individual study. Maximum credit six units.

**RTM 575. Designing Recreation and Park Areas and Facilities (3)**  
Prerequisites: Recreation and Tourism Management 101.  
Design principles and concepts applied to planning and development of park and recreation areas and facilities. (Formerly numbered Recreation 575.)

**UPPER DIVISION COURSES**  
(Also Acceptable for Advanced Degrees)

**REL S 300. Exploring the Bible (3) [GE]**  
Basic content and themes of the Hebrew Bible and New Testament using methods of contemporary biblical studies. Attention to ancient Near Eastern and Greco-Roman cultural settings as well as the impact of the Bible on contemporary culture.

**REL S 304. Christianity (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Christian self-understanding, debates over authority of Bible, accommodations to modern science, and relationship with non-Christian religions.

**REL S 308. Islam (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Islamic religion and culture in Asia, Africa, and Near East. History, doctrines, practices, literatures, social and intellectual movements, role of Mohammed, and gender relations within Islam as understood in global context.

**REL S 310. The Qur’an (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Major themes of Qur’an including cosmology, eschatology, good and evil, gender, God and monotheism, People of the Book (Jews and Christians), and role of religion in society. Attention to historical period in which the Qur’an was compiled.

**REL S 315. Sacred Texts of South Asia (3)**  
Prerequisites: Three units of religious studies, Primary texts from sacred literatures of Hinduism, Buddhism, Jainism, and Sikhism. Methods of interpretation, issues of translation, and placement of sacred texts in their social and historical contexts.

### Area 2: World Traditions

**UPPER DIVISION COURSES**  
(Also Acceptable for Advanced Degrees)

**REL S 320. Judaism (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Jewish history, culture, theory, and practice. Biblical roots of modern Jewish beliefs, basic movements within modern Judaism: Jewish calendar and Jewish life cycle as seen in Hebrew Bible, short stories, and films.

**REL S 325. Christianity (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Historical development of Christian traditions and major issues confronting Christianity today. Beliefs and practices important to Christian self-understanding, debates over authority of Bible, accommodations to modern science, and relationship with non-Christian religions.

**REL S 328. Islam (3) [GE]**  
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.  
Islamic religion and culture in Asia, Africa, and Near East. History, doctrines, practices, literatures, social and intellectual movements, role of Mohammed, and gender relations within Islam as understood in global context.
**Religious Studies**

**REL S 333. Ancient Near Eastern Religions (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Religious worlds of ancient Egypt, Mesopotamia, and Canaan through an examination of gods, goddesses, mythology, death, afterlife, and religious art, architecture, and archaeology.

**REL S 335. Comparative Mysticism (3)**
Prerequisites: Three units of religious studies.

Meaning, origin, and development of mysticism. Purgation, illumination, annihilation, separation, covenant, and union of soul with the Divine as found in world scriptures, writings of prominent mystics, and mystical movements such as Kabbalists, Sufis, and yogic traditions.

**REL S 338. Buddhism (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Life and teachings of Buddha, foundational concepts of Theravada, Mahayana, and Vajrayana Buddhism. Buddhist psychology and soteriology, meditative techniques, ethical issues; contemporary Buddhism, particularly in America.

**REL S 339. Religions of India (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Religious pluralism of Indian sub-continent. Influences of Hinduism, Buddhism, Jainism, Islam, and Sikhism upon each other and social structures of gender, race, and caste. Karma and rebirth, liberation theories and practices, the interaction of mainstream religions with minority and indigenous tribal rituals and beliefs.

**REL S 340. Daoism and Chinese Religions (3)**
Prerequisite: Three units of religious studies.

Daoist tradition in context of Chinese popular religions. Early Daoist communities, texts, practices covered. Themes include body and cosmos, magical medicine, immortality practice, ritual, and relationship between classical and popular religious traditions.

**REL S 342. Hinduism (3)**
Prerequisites: Three units of religious studies.

Historical development of Hinduism from its Harappan and Vedic origins to contemporary times. Hindu myths and rituals, gods and goddesses, art, architecture and sacred geographies; Hindu philosophies and ascetic traditions, yogas and tantras; modern Hinduism, diaspora Hinduism and Indian nationalism.

**REL S 345. Religions of East Asia (3) [GE]**
Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Confucianism, Taoism, and Buddhism in broad historical and cultural context. Focus on Chan (Zen) school of Buddhism, Confucianism, neo-Confucianism of Ju Xi, and Taoist masters Lao Ze and Chuang Ze.

**Area 3: Religion, Society, and Culture**

**UPPER DIVISION COURSES (Intended for Undergraduates)**

**REL S 330. Abrahamic Faiths: Shared Stories (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Theological, textual, and political relations among Judaism, Christianity, and Islam. Shared religious practices and stories such as creation, sacrifice, theories of evil and salvation, prophecy and Messianic expectations. Contemporary issues regarding gender, fundamentalism, and rise of nationalism.

**REL S 350. Varieties of Religious Experience (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Nature and scope of religious experience; transformations of consciousness and self through altered modes of human awareness and mind-body relationships. Yogic and ascetic experience, Shamanic trance and spirit possession, ecstatic experience and mysticism. Techniques of compassion.

**REL S 353. Religion and Psychology (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Religious dimensions of psyche using insights from academic and transpersonal psychology. Construction of religious identities through spiritual practice and transformation. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units of which three units may be applicable to General Education.

**REL S 355. Death, Dying, and Afterlife (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Diverse ways religions deal with process of dying and rituals involved in transition of life to death. Grieving, end-of-life decisions, views on afterlife.

**REL S 363. Religion and the Sciences (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Views of science and religion as separate, conflicting, complementary, and overlapping. Galileo and the Church, the Scopes Trial, and twentieth century physics provide historical examples for study of assumptions about science and religion.

**REL S 364. Religion and Film (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Representations of religion in modern cinema and analysis of how religious themes and imagery in film reflect societal values, beliefs, and morals.

**REL S 367. Nature, Spirituality, Ecology (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Cross-cultural religious views of nature. Attention to sacred texts, writings of naturalists, deep ecologists, and ecofeminists on place of nature in spirituality and role of spirituality in ecology.

**REL S 379. Religious Violence and Nonviolence (3) [GE]**
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II.C., Humanities.

Role of religion in terrorism, hate groups, scapegoating, domestic and international violence, versus role of religion in peacemaking and movements for social justice. Nonviolent philosophies of Gandhi, Martin Luther King, Jr., and pacifism in Jain, Buddhist, and Christian traditions.
Area 4: Religion in the Americas

UPPER DIVISION COURSES
(Intended for Undergraduates)

REL S 390A-390B. Religion and American Institutions (3-3) [AI]
Prerequisites: Three units of religious studies.
Major religious movements, events, and issues affecting development of US government and institutions. 390A: From time of Spanish contact to 1900. 390B: Religion’s impact in twentieth century. This year-long course satisfies the graduation requirement in American Institutions.

REL S 395. New Religions (3) [GE]
Prerequisites: Three units of religious studies and completion of the General Education requirement in Foundations II, C., Humanities. America’s alternative religions, popularly called “cults” and why they attract spiritual seekers. New religions and transplanted Asian and African religions. Theoretical structures of belief systems and concrete specifics on different groups.

Elective Courses

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

REL S 396. Advanced Topics in Religious Studies (1-3)
Prerequisites: Consent of instructor.
Advanced selected topics in religious studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Rhetoric and Writing Studies (RWS)

In the College of Arts and Letters

LOWER DIVISION COURSES
(Non-Baccalaureate Credit)

RWS 92A. Developmental Writing: Fundamentals of Writing (3) Cr/NC/RP
Prerequisite: A score of 142-150 on the EPT.
Academic prose, emphasizing purpose, structure, and style of academic essays. Designed to improve student skills in planning, drafting, revising, editing essays. Open to students who have scored between 142-150 on the EPT and who have not satisfied the SDSU lower division writing competency requirement. Students attaining a score of 8 or better on the final examination will earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP" (Report in Progress). Students receiving an "RP" grade should enroll in Rhetoric and Writing Studies 92B. Not open to students with credit in Rhetoric and Writing Studies 97. Rhetoric and Writing Studies 92A is equivalent to Rhetoric and Writing Studies 97.

RWS 92B. Developmental Writing: Intermediate (3) Cr/NC
Prerequisites: Open only to students who have earned "RP" (report in progress) in Rhetoric and Writing Studies 92A but have not satisfied the Writing Competency requirement.
Evaluation based on student writing portfolio. Credit in Rhetoric and Writing Studies 92B satisfies the SDSU writing competency requirement.

RWS 94. Developmental Writing for International or Bilingual Students (3) Cr/NC/RP
(Same course as Linguistics 94)
Intermediate written English with emphasis on problems of nonnative speakers: discussion of sentence, paragraph, and essay writing skills. Open only to ESL students who have not satisfied the SDSU Writing Competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP" (Report in Progress). Students receiving an "RP" grade should re-enroll in Rhetoric and Writing Studies 94 or Linguistics 94.

RWS 97. Developmental Reading and Writing (Learning in Communities) (3) Cr/NC/RP
Prerequisite: A score of 141 and below on the EPT.
Follows prescribed Rhetoric and Writing Studies 92A curriculum. Students must be concurrently enrolled in the Learning in Communities program, which integrates instruction in the reading process with the contents of a General Education course. Students attaining a score of 8 or better on the final examination earn a grade of Cr and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of RP (Report in Progress). Students receiving an RP grade should enroll in Rhetoric and Writing Studies 92B. Rhetoric and Writing Studies 97 is equivalent to Rhetoric and Writing Studies 92A.

Rhetoric and Writing Studies

Graduate Bulletin

SDSU General Catalog 2008-2009
RWS 98. Mini-Course: Selected Topics (1) Cr/NC
Assorted short courses which will meet three hours a week for five weeks and will cover a variety of academic skills through intensive lectures and laboratory work. Evaluation based on student writing portfolio.
Suggested topics: Research paper, communication skills, research tools, vocabulary development, learning skills, spelling, grammar, and speed reading. See Class Schedule for specific content. Credit earned in courses from this series is not applicable to a bachelor’s degree.
A. Learning Skills
C. Tutorial

LOWER DIVISION COURSES
(Acceptable for Baccalaureate Credit)
RWS 100. Rhetoric of Written Argument (3) [GE]
(Same course as English 100)
Prerequisites: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.)
Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.
International students are advised to take Linguistics 100. Writing and reading as critical inquiry, designed to help students undertake university-level writing projects. Focus on rhetoric of written arguments. Students learn to use sources in their writing and make appropriate decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in a higher-numbered composition course or Rhetoric and Writing Studies 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100.
RWS 101. Rhetoric of Written Argument (3) [GE]
Prerequisites: A score of 146-150 on EPT and a score of 4 or better on EPT essay. Only for students who have not passed EPT. Follows the prescribed Rhetoric and Writing Studies 100 curriculum. In addition, students are required to attend eight individual tutoring sessions throughout the semester. Students must be concurrently enrolled in Rhetoric and Writing Studies 98A or 98C. Not open to students with credit in a higher-numbered composition course or Rhetoric and Writing Studies 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100.
RWS 200. Rhetoric of Written Arguments in Context (3) [GE]
(Same course as English 200)
Prerequisites: Satisfaction of the SDSU writing competency requirement and Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
International students are advised to take Linguistics 200. Further practice in writing, reading, and critical thinking. Emphasis on rhetoric of written arguments in context and using multiple sources in writing. Continued attention to structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, General Studies 260D, or Linguistics 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.
RWS 253. Grammar and Usage for Writers (2)
(Same course as Linguistics 253)
Prerequisites: Passage of EPT or transfer writing assessment. Instruction in sentence structure with attention to integrating sentences into their logical and rhetorical contexts. Identifying and understanding source of sentence-level writing problems. Credit earned in courses from this series is not applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)
RWS 305W. Writing in Various Settings (3)
(Selected sections offered as distance education)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
International students are advised to take Linguistics 305W. Composing effective texts for a wide range of situations in and out of the university. Learning to adjust textual elements for specific purposes, audiences, and settings. Enhances critical reading and writing skills by exploring how content contributes to meaning and effectiveness.
RWS 496. Topics in Rhetoric and Writing Studies (1-3)
Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.
RWS 499. Directed Study (1-3)
Prerequisites: Consent of instructor and approval of department chair.
Individual study. Maximum credit six units.

RWS 500W. Advanced Writing Strategies (3)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.
Advanced writing course focusing on how meaning is negotiated and claims are argued in academic and public discourse.
RWS 501. Editing (3)
Prerequisites: Rhetoric and Writing Studies 305W or 500W.
RWS 503. Professional Writing (3)
Prerequisite: Rhetoric and Writing Studies 305W or 500W.
Principles and practices of professional writing, including clear and concise style and rhetorical strategies of designing effective workplace documents. Practice composing memos, reports, proposals. (Formerly numbered Rhetoric and Writing Studies 503W.)

RWS 504. Advanced Professional Writing (3)
Prerequisites: Rhetoric and Writing Studies 503. Recommended: Graphics or drawing course.
Advanced principles in professional writing, including user and task analysis for interface design; document design and typography; collaboration and interpersonal communication; ethical and cultural issues; usability testing; and small group management.

RWS 505. Writing Project Management (3)
Prerequisites: Rhetoric and Writing Studies 503 and 504. 
Managing technical documentation projects. Collaborative writing. Conducting task analysis, estimating cost and schedule, preparing document plans, gathering information, testing documents, and managing project documentation. (Formerly numbered Rhetoric and Writing Studies 605.)

RWS 506. Writing Internship (3) Cr/NC
Prerequisites: Consent of instructor and successful completion of a 500-level writing course with a grade of B or better.
Intensive experience in writing and editing documents while student is under the joint supervision of an academic instructor and a professional coordinator.

RWS 507. Professional Communication in Nonprofit Organizations (3)
Prerequisites: Rhetoric and Writing Studies 503.
Developing specific technical communication skills for nonprofit organizations. Learning nonprofit documentation: proposals, mission statements, advertising, member surveys, capital campaigns. Promoting volunteerism. Interacting with nonprofit boards. Adhering to state and federal regulations.

RWS 508W. Scientific Writing (3)
Prerequisites: Satisfies Graduation Writing Assessment Requirement for students who have completed 60 units; completed Writing Proficiency Assessment with a score of 8 or higher (or earned a C or higher in RWS 280, 281, or LING 281 if score on WPA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test scores or verification of exemption; copy of transcript.
Developing specific writing skills for scientific research and communication. Learning scientific documentation: research paper, case report, review, abstract, proposal, conference presentation. Adhering to standards and regulations. (Formerly numbered Rhetoric and Writing Studies 508.)

RWS 509. Teaching Composition in Secondary Schools (3)
Prerequisites: Consent of instructor based on writing sample and/ or test.
Theory and practice of teaching and assessing composition in secondary schools and comparable contexts.

RWS 510. Rhetoric and Culture (3)
Interplay of rhetoric, writing, and culture, including race/ethnicity, gender, class, and other cultural considerations. Role of texts in shaping and shifting community knowledge, identity, norms, and values.

RWS 511. Literacy, Rhetoric, and Technology (3)
Role that technologies of communication have played in concepts of language, literacy, and cognition. Histories and theories of literacy (with emphasis on rhetorical tradition), and their relevance to research on electronic text.

RWS 596. Special Topics in Rhetoric and Writing Studies (1-3)
Prerequisite: Consent of instructor.
Selected topics in rhetoric and writing studies. May be repeated with new content and consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 496 applicable to a master’s degree with approval of the graduate adviser.

RWS 599. Special Study (1-3) Cr/NC
Directed individual study. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Russian (RUSSN)
In the Department of European Studies
In the College of Arts and Letters

LOWER DIVISION COURSES
Native speakers of Russian will not receive credit for taking lower division courses in Russian except with advance approval from the department.
All lower division courses in Russian are taught in Russian unless otherwise stated.
No credit will be given for lower division courses taken after successfully completing any upper division Russian course taught in Russian.
No credit will be given for Russian 100A, 100B, 200A, 200B, 301 taken out of sequence.

RUSSN 100A. Beginning Russian 1 (5) [GE]
Prerequisites: Russian 100A or two years of high school Russian. Continuation of Russian 100A. Not open to students who have completed four years of high school Russian unless the fourth course was completed five or more years ago.

RUSSN 100B. Beginning Russian 2 (5) [GE]
Prerequisites: Russian 100B or three years of high school Russian. Continuation of Russian 100B. Not open to students who have completed four years of high school Russian unless the fourth course was completed five or more years ago.

RUSSN 110. Slavic Legends and Tales (3) [GE]
Introduces fairy tales, folk epics and legends and examines aesthetic, social, and psychological values they reflect. Cultural influence of Slavic folklore in literature, music, painting, film. Taught in English.

RUSSN 200A. Intermediate Russian 1 (5) [GE]
Prerequisites: Russian 100B or three years of high school Russian.
Practical application and review of the basic principles of Russian. Oral practice, reading of cultural material in Russian. (Formerly numbered Russian 201.)

RUSSN 200B. Intermediate Russian 2 (5) [GE]
Prerequisites: Russian 200A. Continuation of Russian 200A.

UPPER DIVISION COURSES
(Required for Undergraduates)
All upper division courses in Russian are taught in Russian unless otherwise stated.

RUSSN 301. Advanced Grammar and Composition (3) [GE]
Prerequisites: Russian 200B and completion of the General Education requirement in Foundations II C. Humanities required for non-majors. Proof of completion of prerequisites required: Copy of transcript. Not open to students who graduated from schools where Russian is the primary language of instruction. Advanced grammar and stylistics; intensive writing practice; reports based on outside reading.

RUSSN 303. Political and Business Russian (3)
Prerequisites: Russian 301.
Commercial and political Russian, with emphasis on international relations and socioeconomic aspects of contemporary Russia.
RUSSN 305A. Russian Literature of the Nineteenth Century (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Nineteenth century Russian prose fiction with particular consideration of the works by Pushkin, Turgenev, Tolstoy, Dostoevsky, and Chekhov. Taught in English with readings in English.

RUSSN 305B. Russian Literature of the Twentieth Century (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Twentieth century Russian literature including works by Zamiatin, Pasternak, Akhmatova, and Solzhenitsyn. Taught in English with readings in English.

RUSSN 310. Russian and East European Cinema (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
The study of films from Russian and Soviet films. Taught in English.

RUSSN 311. Russian Through Media (3)
Two lectures and two hours of activity.
Prerequisites: Russian 200B.
Russian stylistics and discourse grammar in context. Emphasis on communicative skills: listening, speaking, reading, and writing. Students work with Internet materials, newspapers, magazines, and excerpts from Russian and Soviet films.

RUSSN 430. Russian Civilization (3) [GE]
Prerequisites: Russian 200B; upper division standing for majors; completion of the General Education requirement in Foundations II.C. Humanities required for nonmajors. Proof of completion of prerequisite required: Copy of transcript.
Russian civilization through literary texts, visual art, music, and film. Relationships between art and politics, art and national identity, art of the fantastic and doublespeak, art of postcommunism and postmodernism.

RUSSN 435. Russian and East European Jewish Literature (3) [GE]
Prerequisites: Upper division standing for majors; completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Russian and East European Jewish culture from 1900’s to present. How literature written in Russian, Polish, Czech, Lithuanian, German by writers of Jewish origin as well as visual arts and cinema reflect changing problem of Jewish national identity. Taught in English.

RUSSN 441. Structure of Modern Russian (3)
Two lectures and two hours of activity.
Prerequisites: Russian 301.
Linguistic structure of current standard Russian. Topics include Russian phonology, phonetics and intonation, verbal and nominal morphology, syntax.

RUSSN 459. Russian Internship (3) Cr/NC
Prerequisites: Upper division standing in major and consent of instructor.
Practical work experience in a field related to Russian studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international experience requirement for majors.

RUSSN 499. Special Study (1-3)
Prerequisites: Fifteen upper division units in the major with an average of B (3.0) or better and consent of instructor. Proof of completion of prerequisites required: Copy of transcript.
Individual study. Maximum credit six units.

RUSSN 596. Topics in Russian Studies (3)
Prerequisites: Russian 305B (for literary topics). Proof of completion of prerequisite required: Copy of transcript.
Topics in Russian language, literature, or linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Social Work (SWORK)
In the College of Health and Human Services

LOWER DIVISION COURSES
SWORK 110. Social Work Fields of Service (3)
Fields of services in which social workers perform professional roles. Focus on social work approach to intervention in practice and policy arenas.

SWORK 120. Introduction to Social Work and Social Welfare (3)
Orientation to field of social work. Develop understanding of social work principles, goals, values, and methods through readings and class discussion. An unpaid assignment in an agency setting is required. Scheduling is flexible.

SWORK 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)
SWORK 350. Cultural Pluralism (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Understanding of the American society as a culturally pluralistic social process and an understanding of social work as a culturally directed profession with emphasis on the concept of cultural identities created by one’s values, ideologies, knowledge and behavior.

SWORK 360. Perspectives on Human Behavior and the Social Environment (3) [GE]
Prerequisites: Completion of General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Interdisciplinary, comparative, and critical approach to explanatory theories of human behavior. Focus on interrelatedness of factors that affect the nature and quality of human life with linkage to the social welfare of individuals, families and communities.
SWORK 361. Human Behavior Across the Life Span (3)
Prerequisites: Social Work major and junior standing.
Psycho-social, biological, cultural and environmental influences on individual growth and development and how knowledge is utilized by social work generalist practitioners in assessment and intervention.

SWORK 370. Social Policies and Social Issues (3)
Prerequisites: Social Work 110 and 120.
Major social forces and institutions as they relate to and determine social policy emphasizing social welfare services in an industrialized society.

SWORK 381. Practice Skills Micro (3)
Prerequisites: Completion of social work preparation for the major.
Junior standing.
Micro skills within overall generalist practice framework. Written and verbal communication, interviewing, assessment with individuals and small groups.

SWORK 382. Practice Skills Macro (3)
Prerequisites: Completion of social work preparation for the major.
Junior standing.
Development of social work practice skills at macro level. Written and verbal communication needs assessment and resource development with organizations and communities.

SWORK 400. Social Work Practice: Child Welfare (3)
Prerequisites: Social Work 370.
Problems of children and supportive, supplementary and substitute social services which have been developed to meet these needs.

SWORK 410. Social Work Practice: Family Issues (3)
Prerequisites: Social Work 370.
Issues relative to social work intervention with families, including major social work and interpersonal family problem situations. Family practice methods and social service provisions, and social policy issues around family needs.

SWORK 420. Aging and the Social Services (3)
Prerequisites: Social Work 370.
Contemporary status, social problems and needs, and developmental theories of the elderly population. Social services delivery system which serves the elderly.

SWORK 430. Alcohol and Other Drug Problems: Prevention and Intervention (3)
Prerequisites: Upper division standing.
Alcohol and other drug issues related to individuals, groups, and society. Concepts include preventive methods, secondary prevention, self-help groups, models of treatment, prevention strategies in communities, and overview of alcohol and drug policies.

SWORK 483A. Generalist Social Work Practice I (3)
Prerequisites: Completion of social preparation for the major, 300-level courses required for major, and concurrent registration in Social Work 489A.
Integration of social work theory, principles, and practice techniques.

SWORK 483B. Generalist Social Work Practice II (3)
Prerequisites: Social Work 483A, 489A, and concurrent registration in Social Work 489B.
Integrating seminar with emphasis on macro generalist practice theory, principles, and methods.

SWORK 489A-498B. Field Experience in Social Work (3-9, 3-9) Cr/NC
Prerequisites: Completion of all 300-level social work courses; Social Work 381 and 382 with a grade of C or better and consent of instructor; concurrent registration in Social Work 483A; arrangements made during prior semester with coordinator of field instruction.
A minimum of 12 units (6 in Social Work 489A and 6 in Social Work 489B) is required. Students spend 16 hours per week per semester in practice field assignments in selected social work agencies or settings.

SWORK 491. Methods of Social Work Research (3)
Definition and purpose of research in social welfare and social work. Formulation of research problems, selecting a design and methodology; techniques of collecting, organizing, interpreting and analyzing data.

SWORK 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

SWORK 497. Investigation and Report (3)
Prerequisites: Consent of instructor.
Analysis of special topics in social welfare.

SWORK 499. Special Study (1-3) Cr/NC
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

SWORK 596. Experimental Topics (1-4)
Selected topics in social work. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Sociology (soc)

In the College of Arts and Letters

LOWER DIVISION COURSES

SOC 101. Introductory Sociology: The Study of Society (3) [GE]
This course is prerequisite to all upper division courses in sociology. Major ideas, concepts, and methods in the study of society to include socialization, culture, social structure, social stratification, deviance, social control, and social change.

SOC 150. Introduction to Social Problems (3)
Prerequisites: Sociology 101.
Contemporary social problems. Topics may include poverty, inequality, unemployment, crime and deviance, population and ecological problems, health, family issues, and the role of ideology and interest groups in the definition of social problems.

SOC 200A. Introduction to SPSS (1)
Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisites: Consent of instructor.
Use of computer package SPSS to organize and modify numerical data. Selected procedures include data file creation, frequency, and descriptive statistics, graphs and charts, cross tabulation, t-tests, one-way ANOVA, correlation, and regression. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201A.)

SOC 200B. Introduction to Access (1)
Two hours of activity for 12 weeks and six hours to be arranged.
Creation of relational databases. Topics include tables, queries, forms, reports, macros, and modules. Will perform sorts and filters and use expressions to create calculated fields and aggregate functions. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. Not open to students with credit in Information and Decision Systems 180. (Formerly numbered Social Science 201B.)
SOC 200C. Introduction to Excel (1)
Two hours of activity for 12 weeks and six hours to be arranged. Use of spreadsheet software. Create and format spreadsheets and workbooks, work with formulas and functions, charts, lists and databases, macros, and "what-if" analysis. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. Not open to students with credit in Information and Decision Systems 180. (Formerly numbered Social Science 201C.)

SOC 200D. Internet Research (1)
Two hours of activity for 12 weeks and six hours to be arranged. World Wide Web (WWW) using search engines and other sources of information. Utilize available library resources and conduct research activities using the World Wide Web. Creating a simple web page to upload to the web. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201D.)

SOC 200E. Introduction to Word and PowerPoint (1)
Two hours of activity for 12 weeks and six hours to be arranged. Using word processing software to create formatted text, tables, graphics, and techniques for enhancing long documents such as theses and dissertations. Using presentation software to create and modify presentations appropriate to myriad topics, including text, graphics, animations, and hyperlinks. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. Not open to students with credit in Information and Decision Systems 180. (Formerly numbered Social Science 201E.)

SOC 200F. Introduction to Web Page Development (1)
Two hours of activity for 12 weeks and six hours to be arranged. Prerequisites: Sociology 200D or commensurate experience. General principles of web page design and creation as applicable to academic environment to include effective web page design techniques, HTML editing software, introductory HTML, and graphics manipulation. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201F.)

SOC 200G. Introduction to SAS (1)
Two hours of activity for 12 weeks and six hours to be arranged. Prerequisites: Credit in an elementary statistics course. Conducting data analysis and data management using SAS software as applicable to users with an elementary statistics background to include understanding basic SAS procedural concepts (such as data and proc steps), inputting, reading, and modifying data, and basic SAS statistical procedures. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201G.)

SOC 200H. Advanced SPSS for Windows (1)
Two hours of activity for 12 weeks and six hours to be arranged. Prerequisites: Credit in Sociology 200A and credit in an elementary statistics course. Continuation of Sociology 200A. Explores more advanced data analyses and use of syntax, options, reports and scripts in SPSS to include analysis of variance, regression, logistic regression, non-parametric tests, and other advanced statistical procedures. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201H.)

SOC 200I. Advanced Microsoft Access (1)
Two hours of activity for 12 weeks and six hours to be arranged. Prerequisites: Credit in Sociology 200B. Review Access database objects (tables, queries, forms, reports, macros and modules) covered currently in Sociology 200B. Also includes Visual Basic for Applications, ActiveX Controls, and working with data object models. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201I.)

SOC 200J. Advanced Microsoft Excel (1)
Two hours of activity for 12 weeks and six hours to be arranged. Prerequisites: Credit in Sociology 200C. Continuation of Sociology 200C. More advanced topics in Excel, including application of advanced functions, worksheet simulation and statistical functions, "what-if" and statistical data analysis, and customizing Excel using macros. Maximum credit six units in any combination of Sociology 200A, 200B, 200C, 200D, 200E, 200F, 200G, 200H, 200I, 200J. (Formerly numbered Social Science 201J.)

SOC 200K. Introduction to Community Analysis (1)
Two hours of activity for 12 weeks and six hours to be arranged. Mapping Census Bureau and other survey data for community analysis and needs assessment to include U. S. Census terminology, finding and importing data, use of GIS software. Internet maps with local data.

SOC 201. Elementary Social Statistics (3) [GE]
Prerequisites: Course in intermediate algebra. Sociology 101; satisfaction of the Entry Level Mathematics requirement; and qualification on the Mathematics Departmental Placement Examination, Part IA.
Basic statistical techniques in sociology. Tables and graphs, measures of central tendency and variability, correlations, cross-classification, and introduction to multivariate analysis, sampling and statistical inference. Computer applications may be included. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Sociology 201; Administration, Rehabilitation and Postsecondary Education 201; Biology 215, Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Statistics 119, 250.

SOC 250. Introduction to Social Research (3)
Prerequisites: Sociology 201 and three units from Sociology 200A (required), and any two units selected from Sociology 200B through 200J.
Methods of sociological analysis including surveys, participant observation, ethnography, comparative, historical, and content analysis. Methods are linked to sociological theory.

SOC 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

SOC 305. Sociological Laboratory II (1)
Three hours of laboratory. Prerequisites: Must be taken in conjunction with a three-unit upper division course.
Application of experimental, quantitative or qualitative methods to sociological problems and the use of experimental, social simulation teaching techniques.

SOC 310. Love, Jealousy, and Envy: The Sociology of Emotions (3)
Prerequisites: Sociology 101.
Sociological understanding of human emotions developed through consideration of history of sex and love, social psychology of jealousy, and political implications of envy. Understanding and management of emotions analyzed in context of community and society.

SOC 320. Sex and Gender in Contemporary Society (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Ways femininity and masculinity are constructed through social arrangements associated with interpersonal relations, family, education, occupations, and economic and political systems. How gender relations are portrayed in mass media and how they are accomplished in community life.
SOC 335. Mass Communication and Popular Culture (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Development of popular culture as influenced by the growth of mass media of communication, including popular music, television, film, newspapers, and advertising. The power, functions, and effects of the mass media in society and in social change.

SOC 338. Sociology of Religion (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Forms of religious belief, knowledge, practice, and experience tied to different social arrangements and historical periods. Consequences of religion for community and society. Secularization and conversion processes in modern industrial societies.

SOC 350. Population and Contemporary Issues (3) [GE]
Prerequisites: Sociology 250 with a grade of C (2.0) or better and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Population processes (fertility, mortality, and migration) as they affect and are affected by such contemporary issues as rapid world population growth, environment, urbanization, family, aging, US-Mexico border, and undocumented migration.

SOC 352. Contemporary Social Problems (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Contemporary social problems in North America and other areas of the world.

SOC 355. Minority Group Relations (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Historical and comparative analysis of race and ethnic relations. Origins and maintenance of ethnic stratification systems; discrimination and prejudice; the adaptation of minority communities; role of social movements and government policies in promoting civil rights and social change.

SOC 401. Social Theory (3)
Prerequisites: Sociology 101.
Theories of society: classical European and contemporary US theories of modernity and post modernity, and non-Western theories of cultural and economic hegemony. Evolution of modern world system. Practical understanding of sociological tradition.

SOC 403. Contemporary Sociological Theory (3)
Prerequisites: Sociology 401.
History and intellectual development of contemporary sociological theories.

SOC 406. Intermediate Social Statistics (3)
Prerequisites: Sociology 250 with a grade of C (2.0) or better.
Statistical techniques in the analysis of social research data and hypothesis testing, including analysis of variance, covariance, partial correlation, multiple and logistic regression, logic and log-linear models, discriminant and factor analysis. Practical application with the use of statistical packages.

SOC 407. Survey and Experimental Research Methods (3)
Prerequisites: Sociology 250 with a grade of C (2.0) or better.
Research process from research design through data processing, analysis, and interpretation. Quantitative research techniques including universe enumeration, sampling, questionnaire construction, scaling techniques, structured interviews, and experimental designs.

SOC 408. Qualitative Research Methods (3)
Prerequisites: Sociology 101 and 250 with a grade of C (2.0) or better.
Ethnographic research methods including interviewing, observation, participant observation, and case studies. Problems in research design; gaining and maintaining rapport; analysis, interpretation, and writing with qualitative data.

SOC 410. Social Psychology: Mind, Self, and Society (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Major theories, problems, and findings concerning the relationship of the individual and society. Topics include consciousness and construction of meaning, self-concept and social identity, socialization and interaction, group behavior and group membership.

SOC 412. Social Construction of Reality (3)
Prerequisites: Sociology 101.

SOC 420. Sexuality in Modern Society (3)
Prerequisites: Sociology 101.
Current research on contemporary sexual attitudes and behaviors, including changing norms in premarital, marital, and extramarital relationships. Controversies and implications for the individual and society.

SOC 421. The American Family and Its Alternatives (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Changes in intimacy in American family. Selection of mating partners, spousal and parenting relationships, and alternatives to traditional family forms. Changing functions of the family viewed in historical perspective. Present diverse family arrangements and future prospects.

SOC 430. Social Organization (3) [GE]
Prerequisites: Sociology 250 with a grade of C (2.0) or better and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Social structure of societies. Historical examination of structure and development of social institutions, communities, and other large scale organizations.

SOC 433. Wealth, Status, and Power (3)
Prerequisites: Sociology 250 with a grade of C (2.0) or better.
Social inequality as an institutional process. Patterns of unequal distribution of wealth, power, privilege and prestige, their causes, and impact this has on communities and societies.

SOC 436. Sociology of Health and Illness (3)
Prerequisites: Sociology 101.
Social, cultural, and political factors in definitions of health, disease, healing, and provision of services. Comparative study of medical practices and organizational structures in America and selected international settings. Emphasis on change, socialization of practitioners, relationships between health-related occupations.

SOC 441. Sociology of Mental Illness (3)
Prerequisites: Sociology 101.
Social, cultural, historical, and political factors involved in definition of madness and theories of mental illness in various societies. Review of research about incidence, prevalence, and social epidemiology of mental illness, as a community problem, and its distribution by social class, gender, age, geographical region, and country.

SOC 442. Sociology of Murder (3)
Prerequisites: Sociology 101.
Characteristics and distribution of murder, including historical and cross-cultural comparisons. Social psychological, structural, cultural and situational explanations of causes and consequences of violent, gang, domestic, mass, serial and sexual murders.

SOC 443. Crime and Society (3)
Prerequisites: Sociology 101.
Sociology

SOC 444. Juvenile Delinquency (3)
Prerequisites: Sociology 101.
Sociological theories about causes and consequences of juvenile delinquency. Social origins of juvenile justice system, with attention to methods of control and prevention at community and national levels.

SOC 445. Sociology of Deviance (3)
Prerequisites: Sociology 101.
Conformity and nonconformity; the relationship between individual liberty and social control; stigma and the labeling of deviant behavior such as prostitution, alcoholism, drug addiction, and crime.

SOC 450. Social Change (3) [GE]
Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Social change at the interpersonal, institutional, and societal levels of analysis. Major economic, political, technological, and demographic forces that have shaped the contemporary world. Topics may include modernization, industrialization, urbanization, revolution, and prospects of social change in rich and poor nations.

SOC 456. Collective Behavior: Crowds, Cults, and Crazes (3)
Prerequisites: Sociology 101.
Processes of social behavior in masses and groups, including crowd behavior, mass hysteria, riots, mobs, fads, fashions, crazes, panics, rumors, and scapegoating. Sects and cults; social movements; the effects of mass communications and propaganda.

SOC 457. Protests, Reforms, and Revolutions (3)
Prerequisites: Sociology 101.
Revolutionary and reform movements in relationship to the larger society. Conditions leading to development of social movements, emergence of leadership, ideologies, strategies, recruitment of members, and social consequences; case studies.

SOC 480. Field Internship (3-6)
Prerequisites: Sociology 101.
Supervised field placement of students in community agencies. Practical experiences related to studies within the sociology curriculum. Maximum credit six units.

SOC 481. Community Poverty Workshop (3)
Prerequisites: Sociology 101 and 480.
Poverty dynamics in San Diego area: labor market, location of jobs and location of poor people, needs of poor and delivery of social services. Working with poor single parent families.

SOC 490. Senior Honors Thesis (3)
Prerequisites: Satisfaction of the Graduation Writing Assessment Requirement. Open to sociology majors with senior standing and permission of the honors thesis adviser.
Directed research on a sociological topic chosen in consultation with the honors adviser, and completion of a senior honors thesis. Required of students wishing to graduate with a Certificate of Recognition in Sociology with Honors. 

SOC 496. Experimental Topics (1-4)
Prerequisites: Consent of the instructor.
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

SOC 499. Special Study (1-6)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

SOC 522. The Family in Comparative and Cross-Cultural Perspectives (3)
Prerequisites: Sociology 101. Recommended: Sociology 421.
Comparative study of selected family systems in the past and present. Comparative analysis of major social and demographic changes in marriage and family in post-industrial nations and less developed countries. Cross-cultural comparisons of family arrangements in contemporary America by social classes and racial-ethnic groups.

SOC 531. Working and Society (3)
Prerequisites: Sociology 101.
Structure and change in labor force, nationally and internationally. Social drama of work: self, roles, conflict, subcultures. Includes exploration of student work experiences, workers in the community, literacy, and film depictions of work worlds.

SOC 537. Political Sociology (3)
Prerequisites: Sociology 101.
Social organization of political processes. Power and authority, social class, primary groups, collective behavior, social change, and other sociological factors considered in their relationships to political processes.

SOC 539. Sociology of Education (3)
Prerequisites: Sociology 101.
Social organization of education in the United States and other societies. Structure and functions of educational institutions. Formal and informal education. Class, ethnic, and other social factors affecting the educational process. Implications of educational decision making and testing.

SOC 543. Police, Courts, and Corrections: The Sociology of Crime and Punishment (3)
Prerequisites: Sociology 101.

SOC 554. United States-Mexico Transborder Populations and Social Change (3)
(Same course as Chicana and Chicano Studies 554)
Prerequisites: Sociology 101. Recommended: Chicana and Chicano Studies 355 and/or Sociology 350.

SOC 555. Immigrants and Refugees in Contemporary American Society (3)
Prerequisites: Sociology 101.
Contemporary migration to the United States, especially from Latin America and Asia. Political and economic migration. Immigrant and refugee adaptation. Theoretical controversies, research applications, and policy implications.

SOC 596. Current Topics in Sociology (1-3)
Prerequisites: Sociology 101.
Selected specialized, controversial or currently relevant topics in sociology. Maximum opportunity provided for student initiative in determining course content and procedures. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

SOC 597. Investigation and Report (3)
Prerequisites: Fifteen units in sociology and consent of instructor. Analysis of special topics in sociology. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.
Spanish (SPAN)

In the Department of Spanish and Portuguese Languages and Literatures
In the College of Arts and Letters

LOWER DIVISION COURSES

Native speakers of Spanish will not receive credit for taking lower division courses in Spanish except with advance approval from the department.

All lower division courses in Spanish are taught in Spanish.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

No credit will be given for Spanish 101, 102, 201, 202, 301 taken out of sequence.

SPAN 101. Introduction to Spanish I (4) [GE]
Four lectures plus laboratory. Prerequisites: Spanish 101 or two years of high school Spanish. Continuation of Spanish 101. Not open to students who have completed four years of high school Spanish unless the fourth course was completed five or more years ago. Not open to students with credit in Spanish 102, 201, 202, 281, 282, 301, or a higher-numbered Spanish course.

SPAN 102. Introduction to Spanish II (4) [GE]
Four lectures plus laboratory. Prerequisites: Spanish 101 or two years of high school Spanish. Continuation of Spanish 101. Not open to students who have completed four years of high school Spanish unless the fourth course was completed five or more years ago. Not open to students with credit in Spanish 201, 202, 281, 282, 301, or a higher-numbered Spanish course.

SPAN 201. Intermediate Spanish I (4) [GE]
Four lectures plus laboratory. Prerequisites: Spanish 102 or completion of the third year of high school Spanish.

First course in Spanish at intermediate level. Grammatical structures presented in beginning Spanish. Culture-centered oral and written language emphasized. Not open to students who have completed five years of high school Spanish unless the fifth course was completed five or more years ago. Not open to students with credit in Spanish 202, 281, 282, 301, or a higher-numbered Spanish course. See enrollment restrictions under AP credit in Spanish. May be taken concurrently with Spanish 211. It is recommended that heritage speakers of Spanish take Spanish 281 in place of Spanish 201 and 211. Taught in Spanish. (Formerly numbered Spanish 103.)

SPAN 202. Intermediate Spanish II (4) [GE]
Prerequisites: Spanish 201 or completion of the fourth year of high school Spanish.

Second course in Spanish at intermediate level. Selected grammatical structures supported by study of cultural materials. Written and spoken Spanish emphasized. Not open to students with credit in Spanish 282, 301, or a higher-numbered Spanish course. See enrollment restrictions under AP credit in Spanish. May be taken concurrently with Spanish 212. It is recommended that heritage speakers of Spanish take Spanish 282 in place of Spanish 202 and 212. Taught in Spanish.

SPAN 211. Intermediate Conversation and Reading (3) [GE]
Prerequisites: Spanish 102.

Emphasis on oral communication and reading comprehension through intermediate level cultural materials. Some writing will be adjunc to reading. Conducted in Spanish. May be taken concurrently with Spanish 201. Not open to students who have completed five years of high school Spanish unless the fifth course was completed five or more years ago. Not open to students after taking Spanish 281.

SPAN 212. Intermediate Conversation and Writing (3) [GE]
Prerequisites: Spanish 201 and 211.


SPAN 281. Intermediate Spanish for U.S. Hispanics (3) [GE]
Prerequisites: Exposure to Spanish in the home and neighborhood in the U.S.

Introduction to written Spanish: orthography, spelling, basic sentence construction, vocabulary enrichment, complex and compound sentence construction, basic principles of writing. Not open to students who have completed five years of high school Spanish unless the fifth course was completed five or more years ago. Not open to native speakers (with high school diploma from a Spanish speaking country) or students with credit in Spanish 201, 202, 211, 282, 301, or a higher-numbered Spanish course. Replaces Spanish 201 and 211 for Preparation for the Major.

SPAN 282. Intermediate Spanish for U.S. Hispanics (3) [GE]
Prerequisites: Spanish 281 or score on departmental diagnostic examination.

Continuation of Spanish 281. Not open to native speakers (with high school diploma from a Spanish speaking country) or students with credit in Spanish 202, 212, 301, or a higher-numbered Spanish course. Replaces Spanish 202 and 212 for Preparation for the Major.

SPAN 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

SPAN 299. Special Study (1-3)
Prerequisites: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

All upper division courses in Spanish are taught in Spanish unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

SPAN 301. Advanced Conversation and Reading (3)
Prerequisites: Spanish 202 and 212.

Continued development of oral communication and reading comprehension. Review of selected grammatical structures through use of literary and cultural materials. Some writing will be adjunc to reading. Conducted in Spanish. May be taken concurrently with Spanish 302. Not open to students with credit in Spanish 381.

SPAN 302. Advanced Conversation and Writing (3)
Prerequisites: Spanish 202 and 212.

Advanced practice at oral communication through conversations and public speaking. Practice of written Spanish through advanced composition. Conducted in Spanish. May be taken concurrently with Spanish 301. Not open to students with credit in Spanish 381.

SPAN 307. Introduction to Commercial Spanish (3)
Prerequisites: Spanish 301, 302, or 381.

Terminology and forms of business correspondence and documents.

SPAN 340. Spanish Civilization (3) [GE]
Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish culture of the past and present, with emphasis on literature, philosophy, and the arts.

SPAN 341. Spanish American Civilization (3) [GE]
Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish American cultures, with emphasis on literature, philosophy, and the arts.
SPAN 342. Mexican Civilization (3) [GE]
Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
The majors current and characteristics of Mexican culture, as expressed through the centuries in literature, philosophy and the arts.

SPAN 350. Advanced Grammar (3)
Prerequisites: Spanish 301 and 302 or 381.
Significant systematic features of modern Spanish grammar. Required for credential applicants.

SPAN 381. Advanced Spanish for Spanish Speakers (3)
Prerequisites: Spanish 282 or departmental diagnostic placement examination.
Advanced aspects of Spanish grammar (accentuation rules, intonation, and secondary stress), imperfect subjunctive in combination with other tenses, passive voice and impersonal constructions. Advanced composition of summaries, interpretive essays, and basic research papers. Replaces Spanish 301 and 302 for the Spanish major. Spanish 381 not open to students with credit in either Spanish 301 or 302.

SPAN 391. Spanish Enhancement for Translation and Interpretations (3)
Prerequisites: Spanish 301 and 302, or 381, and 350.
Bridges gap between Spanish for communication and Spanish for work. Acquisition of translation and interpretation skills (active listening, text analysis, anticipation, memory, public speaking).

SPAN 405A-405B. Survey Course in Spanish Literature (3-3) [GE]
Prerequisites: Spanish 301 and 302 or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Important movements, authors and works in Spanish literature from the Middle Ages to the present.

SPAN 406A-406B. Survey of Spanish American Literature (3-3) [GE]
Prerequisites: Spanish 301 and 302 or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Reading from representative Spanish American authors during colonial, revolutionary, and modern periods.

SPAN 448. Spanish Linguistics (3)
Prerequisites: Spanish 350.
Structural, historical, and applied Spanish linguistics.

SPAN 491. Introduction to Translation Studies (3)
Prerequisites: Spanish 350 and satisfaction of the University Graduation Writing Assessment Requirement.

SPAN 492. Translation Theory (3)
Prerequisites: Spanish 491.

SPAN 493. Advanced Spanish-English/English-Spanish Translation (3)
Prerequisites: Spanish 350 and 491.
Practicum involving methods and techniques in translation of legal or government papers, banking documents, and business contracts from Spanish into English and from English into Spanish. Practice in translation of old Spanish into English (deeds, surveys, baptismal records, manuscripts of books).

SPAN 495. Internship in Translation and Interpretation (3)
Prerequisites: Spanish 491 and consent of instructor.
Students selectively assigned to legal firms, medical facilities, commercial establishments or public offices that deal routinely with English and Spanish translation and interpretation. Students work 15 hours weekly under joint supervision of site coordinators and instructor. Maximum credit six units.

SPAN 496. Selected Studies in Spanish (3)
Topics in Spanish or Spanish American language, literature, culture, and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit six units.

SPAN 497. Advanced Commercial Spanish (3)
Prerequisites: Six units from Spanish 301, 302, or 381 and Spanish 307.
Terminology and techniques used in commercial transactions, including interpretation and writing of business materials.

SPAN 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Spanish available in any given semester.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

SPAN 501. Genre Studies in Spanish Literature (3)
Prerequisites: Spanish 405A-405B.
A specific literary genre: overview of the genre’s development in Spanish literature (Spanish novel, short story, theatre) or focus on a narrower period (contemporary narrative, modern poetry). May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

SPAN 502. Genre Studies in Spanish American Literature (3)
Prerequisites: Spanish 406A-406B.
A specific literary genre: overview of the genre’s development in Spanish American literature (the Spanish American novel, short story, theatre) or focus on a narrower period (vanguardista poetry, the “Boom”). May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

SPAN 503. Literature of Baja California (3)
Prerequisites: Spanish 406A-406B.
Diachronic overview of Baja California literature in its different genres. Cultural phenomenon of the border nation, in which the Californias are vital.

SPAN 504. Don Quixote (3)
Prerequisites: Spanish 405A.
A close reading of Cervantes’ novel Don Quixote, Parts I and II. (Formerly numbered Spanish 620.)

SPAN 515. Mexican Literature (3)
Prerequisites: Spanish 406A-406B.
Mexican literature from the Romantic period to the present. Special emphasis placed on contemporary era.

SPAN 520. Caribbean Area Countries Literature (3)
Prerequisites: Spanish 406A-406B.
Literature of Caribbean Islands, Central America, Colombia and Venezuela, from colonial period to present. Special emphasis on contemporary era.

SPAN 549. Spanish Phonetics and Phonology (3)
Prerequisites: Spanish 448.

SPAN 561. Methods in Teaching Spanish as a Second Language (3)
Prerequisites: Spanish 350 or 448.
Teaching of Spanish as a second language: contemporary theory and methods. Not open to students with credit in French 561.

SPAN 572. Spanish American Theatre (3)
(Prerequisites: Spanish 405A-405B.
Principal Spanish American dramatists and movements. Special emphasis on contemporary era.
SPAN 581. Mexican Sociolinguistics (3)
Prerequisites: Spanish 350 and 448.
Sociolinguistic phenomena occurring in Mexico from pre-Columbian times to the present. Language diversity before 1521 and throughout the colony: language contact and bilingualism: language policy and loss of indigenous languages. Emergence of Spanish as the national standard code in the nineteenth century. Regional dialects of Mexican Spanish.

SPAN 582. Sociolinguistics of U.S. Spanish (3)
Prerequisites: Spanish 350 and 448.
Contact of Spanish and English in the U.S. Southwest from 1848 to the present. Spanish language loss in the nineteenth century. Bilingualism in urban and rural communities; language maintenance and shift in the twentieth century. Language attitudes and bilingual education. Varieties of Spanish in the Southwest, the Northeast, and Florida.

SPAN 594A. Consecutive English/Spanish Interpretation (3)
Prerequisites: Spanish 350 or 391.
Consecutive interpretation techniques focusing on current events to include notetaking technique for interpreters, preparation for meetings, language register, active listening, structure of a speech, abstracting meaning, sight translation in the booth.

SPAN 594B. Simultaneous English/Spanish Interpretation (3)
Prerequisites: Spanish 594A with a grade of B (3.0) or better.
Simultaneous interpretation techniques focusing on current events. Simultaneous, whispered, and relay interpretation, preparation for meetings, language register, listening, structure of a speech, abstracting, sight translation in the booth.

SPAN 596. Selected Studies in Spanish (3)
Prerequisites: Spanish 302 or 381.
Topics in Spanish or Spanish American language, literature, culture and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maxi- mum credit of six units of 596 applicable to a master's degree.

SPED 470. Special Education Applications (2 or 3) Cr/NC
One lecture and two or four hours of activity.
Prerequisites: Consent of instructor.
Procedural applications in educational and/or community programs for students with exceptionalities.

SPED 496. Selected Topics in Special Education (1-4)
Prerequisites: Consent of instructor.
Instructional sequences focusing on a single topic or competency dealing with special education. Topics differ each semester to adjust to current literature in the field, training needs, and resource availability. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

SPED 499. Special Study (1-3)
Prerequisites: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

SPED 500. Human Exceptionality (3)
Historical, philosophical, and legal aspects of special education that affect identification and programming for diverse learners with exceptionalities. Characteristics of individuals with special needs and implications for adapting living and learning environments. Meets special education mainstreaming requirement for all basic teaching credentials.

SPED 501. Typical and Atypical Learning Processes (3)
Prerequisites: Credit or concurrent registration in Special Education 500; concurrent registration in Special Education 502.
Theory, research, and processes in learning in relation to individuals with disabilities. Foundations of learning, development, and intervention.

SPED 502. Field Experiences in General and Special Education (1) Cr/NC
Three hours of observation/participation per week.
Prerequisites: Concurrent registration in Special Education 501.
Observation and participation in general and special education classrooms and related school activities for students with disabilities.

SPED 505. Educational Services for Students with Serious Emotional Disturbance (1)
Prerequisites: Admission to credential program.
Educational needs and services for students with serious emotional disturbance. Classroom interventions and procedures.

SPED 510. Adapting Communication Systems for Students with Severe Disabilities (3)
Prerequisites: Admission to credential program.
Adaptations of communications and communication systems for students with disabilities. Educational strategies that special education teachers can use to augment classroom communications. Alternative approaches to communication for students with moderate/severe disabilities.

SPED 524. Characteristics of Students with Mild/Moderate Disabilities (3)
Prerequisites: Special Education 500.
Historical and philosophical perspectives of programs related to students with mild/moderate disabilities. Research on educational programs, curricular approaches, and characteristics.

SPED 525. Characteristics of Students with Moderate/Severe Disabilities (3)
Prerequisites: Special Education 500.
Historical and philosophical perspectives of programs related to students with moderate/severe disabilities. Research on educational programs, curricular approaches, and characteristics with emphasis on services in context of school reform.

SPED 526. Characteristics and Education of Students with Physical, Health, and Sensory Impairments (3)
Prerequisites: Special Education 500.
Historical and philosophical perspectives, characteristics, needs, and supports for individuals with physical, health, and sensory impairments in educational, home, and community settings. Implications of health concerns for programming.

SPED 527. Special Education in a Pluralistic Society (3)
Prerequisites: Credit or concurrent registration in Special Education 500.
Historical and philosophical perspectives of cultural pluralism in special education and programs related to diverse students with disabilities. Research on curricular approaches and instructional needs. Sociocultural aspects related to disability, race, ethnicity, gender, and language.
Speech, Language, and Hearing Sciences

**LOWER DIVISION COURSES**

- **SLHS 101. American Sign Language I (4) [GE]**
  - American Sign Language structure, use, literature, and deaf culture. Introductory level communication competence in ASL. Not open to students who completed three years of high school American Sign Language classes unless the third course was completed five or more years ago. (Formerly numbered Speech, Language, and Hearing Sciences 159.)

- **SLHS 102. American Sign Language II (4) [GE]**
  - Prerequisite: Speech, Language, and Hearing Sciences 101. Continuation of Speech, Language, and Hearing Sciences 101. Beginning level communication competence in American Sign Language. Not open to students who completed four years of high school American Sign Language classes unless the fourth course was completed five or more years ago. (Formerly numbered Speech, Language, and Hearing Sciences 259.)

- **SLHS 106. Communicative Disorders (3)**
  - Orientation to field of speech pathology and audiology. Survey of communicative disorders, covering all areas of exceptionality, normal growth and development as it relates to speech and language. Waiver of this course is permitted only upon satisfactory passage of a competency examination.

- **SLHS 150. Sign Languages and Deaf Culture (3) [GE]**
  - Introduction to sign languages and nature and structure of all human languages. Deafness and deaf culture and general issues of minority societies.

- **SLHS 200. American Sign Language IV (4) [GE]**
  - Prerequisite: Speech, Language, and Hearing Sciences 201. Continuation of Speech, Language, and Hearing Sciences 201. Practice of all language skills of American Sign Language at the intermediate to advanced level.

- **SLHS 201. American Sign Language III (4) [GE]**
  - Prerequisite: Speech, Language, and Hearing Sciences 200. Continuation of Speech, Language, and Hearing Sciences 200. Intermediate level communication competence in American Sign Language. Not open to students who completed five years of high school American Sign Language classes unless the fifth course was completed five or more years ago. (Formerly numbered Speech, Language, and Hearing Sciences 289.)

- **SLHS 202. American Sign Language IV (4) [GE]**
  - Prerequisite: Speech, Language, and Hearing Sciences 201. Continuation of Speech, Language, and Hearing Sciences 201. Practice of all language skills of American Sign Language at the intermediate to advanced level.

- **SLHS 296. Experimental Topics (1-4)**
  - Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

**UPPER DIVISION COURSES**

- **(Intended for Undergraduates)**
- **SLHS 300. Introduction to Language Science (3)**
  - Structure, acquisition, processing, and neurological organization of language in typical and disordered communication.

- **SLHS 305. Hearing and Speech Sciences (4)**
  - Prerequisites: Credit or concurrent registration in Speech, Language, and Hearing Sciences 102. Concepts of hearing and speech science. Hearing science component to include physical acoustics, anatomy and physiology of auditory system, and psychoacoustics. Speech science component to include speech acoustics. Not open to students with credit in Speech, Language, and Hearing Sciences 205 and 323.

- **SLHS 320. Phonetics (3)**
  - Two lectures and three hours of laboratory. Principles of speech production and practical skills in discriminating and transcribing sounds of various dialects in English and other languages, as well as clinical populations. Competency in IPA broad and narrow transcription, classification of speech sounds, and patterns of speech.

- **SLHS 321. Anatomy, Neurology, and Physiology of Speech (4)**
  - Three lectures and three hours of laboratory. Prerequisites: Credit or concurrent registration in Speech, Language, and Hearing Sciences 106. Recommended: Psychology 260. Anatomy and physiology of neural, respiratory, phonological, and articulatory systems related to speech.

- **SLHS 322. Learning in Communicative Disorders (3)**
  - Understanding how people learn to communicate and understanding differences in learning related to communication disorders. Principles of learning and motivation. Role of diversity in learning.
Speech, Language, and Hearing Sciences

SLHS 340. Principles of Audiology (3)
Prerequisites: Speech, Language, and Hearing Sciences 305, Psychology 260, concurrent registration in Speech, Language, and Hearing Sciences 340L.
Diagnostic audiometry procedures: Pure-tone testing, masking, speech recognition testing and immittance. Integration and interpretation of results from the basic audiological test battery.

SLHS 340L. Techniques of Audiometry (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Speech, Language, and Hearing Sciences 340.
Laboratory experience with pure-tone, speech, and immittance audiometric tests.

SLHS 350. Advanced Topics in Deaf Studies (3)
Prerequisites: Speech, Language, and Hearing Sciences 150; credit or concurrent registration in Speech, Language, and Hearing Sciences 201.
Specialized topics in contemporary deaf culture. Topics in American Sign Language, literature, culture, and linguistics.

SLHS 357. Fieldwork with the Deaf (1-2) Cr/NC
Two hours of activity per unit of credit and one hour of staffing.
Prerequisite recommended: Speech, Language, and Hearing Sciences 101.
Field observation and participation under supervision in school settings with small groups of hearing impaired/youngsters. Maximum credit three units.

SLHS 491. Honors Special Study (2)
Prerequisites: Junior standing and formal admission to speech, language, and hearing sciences honors program.
Current research and methodology in communicative sciences and disorders, with emphasis on faculty research programs in the School of Speech, Language, and Hearing Sciences.

SLHS 492A. Honors Project and Symposium (3) Cr/NC
Prerequisites: Senior standing and admission to speech, language, and hearing sciences honors program.
Preparation of a research project for the honors program.

SLHS 492B. Honors Project and Symposium Extension (3) Cr/NC
Prerequisites: Speech, Language, and Hearing Sciences 492A.
Completion and presentation of research project for the honors program.

SLHS 496. Topics in Speech, Language, and Hearing Sciences (1-4)
Study of some problem in speech, language, and hearing sciences. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

SLHS 499. Special Study (1-3)
Prerequisites: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

SLHS 503. Low Incidence Communicative Disorders (3)
Prerequisites: Speech, Language, and Hearing Sciences 320 and 321.
Characteristics, etiologies, assessment, and intervention strategies for fluency, voice, and craniofacial/cleft palate disorders.

SLHS 511. Pediatric Aural Rehabilitation (3)
Theoretical, methodological, and technical issues related to facilitating receptive and expressive communication in individuals who are deaf or hard-of-hearing. Emphasizes multidisciplinary case management of children.

SLHS 512. Phonological Acquisition and Disorders (3)
Prerequisites: Speech, Language, and Hearing Sciences 320, 321.
Phonology, phonological development, and phonological disorders as they relate to basic linguistic theory. Concepts considered through critical thinking and problem-solving.

SLHS 513. Language Development and Disorders in Early Childhood (3)
Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.
Language and communication development, delay, and disorders as they relate to theory and clinical practice in children from infancy through preschool.

SLHS 514. Language Development and Disorders in School Age Children and Adolescents (3)
Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.
Language development, delay, and disorders as they relate to developmental theory and clinical practice for school-age children from 5 through 18 years of age.

SLHS 521. Speech-Language Screening of Children (1) Cr/NC
Four hours of supervision.
Prerequisites: Clinic clearance.
Screening speech and language of children in various community facilities and settings.

SLHS 522. Speech-Language Screening of Adults (1)
Four hours of supervision.
Prerequisites: Clinic clearance.
Screening speech and language of adults in various community facilities and settings.

SLHS 525. Clinical Processes (1-2)
Prerequisites: Consent of instructor.
Clinical issues, policies, and methods in speech-language pathology. Experience in writing lesson plans and clinical reports. Clinical observation to partially fulfill requirements for certification. Maximum credit five units.

SLHS 541. Hearing Screening of Children (1) Cr/NC
Three hours of laboratory screening per week.
Prerequisites: Speech, Language, and Hearing Sciences 340 and 340L.
Field experiences in audiometric and impedance screening of children to obtain contact hours in screening required by American Speech-Language-Hearing Association, California License, and Clinical-Rehabilitative Services credential.

SLHS 546. Clinical Practice with Aural Rehabilitation (0.5)
Two hours of supervision.
Prerequisites: Grade of C or better in Speech, Language, and Hearing Sciences 511 and a minimum of two units in Speech, Language, and Hearing Sciences 525.
Supervised practicum in aural rehabilitation. One unit represents two hours of clinical contact and one hour of staffing per week.

SLHS 550. Education of Deaf Children and Youth (3)
Prerequisites: Speech, Language, and Hearing Sciences 350, Educational programs, services and resources for learners who are deaf; historical background, philosophy, sociological and psychological problems.

SLHS 556. Clinical Practice with Learners Who Are Deaf or Hard-of-Hearing (1)
Two hours of supervision, one hour of staffing per week, and grand rounds attendance once per month.
Prerequisites: Speech, Language, and Hearing Sciences 101, 357; credit in two of the following and concurrent registration in the third: Speech, Language, and Hearing Sciences 511, 513, 562.
Admission to clinical practicum includes successful completion of competency examination. Supervised therapy with representative challenges found in the deaf and hard-of-hearing population. Maximum one unit first semester; maximum credit two units.
SLHS 558. ASL Structure and Acquisition (3)
Prerequisites: Speech, Language, and Hearing Sciences 201 and 350.
ASL phonology, morphology, syntax, and discourse structure, including simple and complex sentence structure, storytelling, and sociolinguistics. Analyzing language samples in ASL. Developing lesson plans to teach ASL to deaf and hard-of-hearing children.

SLHS 562. Oral Communication for Children Who Are Deaf or Hard-of-Hearing (3)

SLHS 570. Dysphagia (3)

SLHS 580. Communication Processes and Aging (3)
Prerequisites: Twelve upper division units in an appropriate major. Normal and disordered communication processes in the aging.

SLHS 595. Research Practicum (1-3)
Prerequisites: Consent of instructor and approval of school chair. Participation in a specific research activity under faculty supervision. Maximum combined credit of six units of Speech, Language, and Hearing Sciences 595 and 795.

SLHS 596. Selected Topics in Speech, Language, and Hearing Sciences (1-4)
Prerequisites: Twelve units in speech, language, and hearing sciences courses.
Specialized study of selected topics from the area of speech-language pathology, audiology, education of the hearing impaired, and speech and hearing science. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Statistics (STAT)
In the Department of Mathematics and Statistics
In the College of Sciences

LOWER DIVISION COURSES
NOTE: Proof of completion of Entry-Level Mathematics requirement required for Statistics 119 and 250: Copy of ELM score or verification of exemption.

STAT 119. Elementary Statistics for Business (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.
Measure of central tendency and variability, frequency distributions; probability, Bayes theorem, probability distributions (including binomial, hypergeometric, and normal), sampling distributions, confidence intervals, significance testing, regression and correlation. Not open to students with credit in Statistics 250. Students with credit or concurrent registration in the following lower division statistics courses other than Statistics 250 will be awarded a total of four units for the two (or more) courses: Statistics 119; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201.

STAT 250. Statistical Principles and Practices (3) [GE]
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement.
Descriptive statistics, data displays, measures of central tendency and variability, random variables, sampling distribution, estimation and hypothesis tests for means and proportions, linear regression and correlation. Not open to students with credit in Statistics 119. Students with credit or concurrent registration in the following lower division statistics courses other than Statistics 119 will be awarded a total of four units for the two (or more) courses: Statistics 250; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201.

STAT 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

STAT 299. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)
NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

STAT 325. SAS Programming and Data Management (3)
Prerequisites: Statistics 250 or comparable course in statistics. Entry, management, and summary of statistical data using SAS programming language. Data structures and manipulation, screen editing, visual displays, macros, related topics.

STAT 350A. Statistical Methods (3)
Prerequisites: Statistics 250 or comparable course in statistics. One- and two-sample hypothesis tests, paired difference tests, tests for variances, analysis of variance. Linear regression and correlation. Chi-square tests. Simple nonparametric tests. Power of hypothesis tests.

STAT 350B. Statistical Methods (3)
Prerequisites: Statistics 350A. Multiple regression, factorial models and nonparametric methods, all with emphasis on applications.

STAT 357. Probability and Statistics (3)
Prerequisites: Mathematics 150. Probability, measures of central tendency and dispersion, characteristics of frequency functions of discrete and continuous variates; applications. Highly recommended for all prospective secondary school teachers of mathematics.

STAT 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

STAT 499. Special Study (1-3)
Prerequisites: Consent of instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)
NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

STAT 510. Applied Regression Analysis (3)
Prerequisites: Statistics 250 or comparable course in statistics. Methods for simple and multiple regression models, model fitting, variable selection, diagnostic tools, model validation, and matrix forms for multiple regression. Applications of these methods will be illustrated with SAS, SPSS, and/or S-Plus computer packages.
STAT 520. Applied Multivariate Analysis (3)
Prerequisites: Statistics 350A or comparable course in statistics.
Multivariate normal distribution, multivariate analysis of variance, principal components, factor analysis, discriminant function analysis, classification, and clustering. Statistical packages will be adapted for data analysis.

STAT 550. Applied Probability (3)
Prerequisites: Mathematics 151 and 254.
Computation of probabilities via enumeration and simulation, discrete and continuous distributions, moments of random variables. Markov chains, counting and queuing processes, and selected topics.

STAT 551A. Probability and Mathematical Statistics (3)
Prerequisites: Statistics 252.
Point and interval estimation and hypothesis testing in statistical models with applications to problems in various fields.

STAT 551B. Probability and Mathematical Statistics (3)
Prerequisites: Statistics 551A.
Introduction to stochastic processes with selected applications.

STAT 560. Sample Surveys (3)
Prerequisites: Statistics 550 or 551A.
Methods for design and analysis of sample surveys with applications to social and biological sciences. Simple random sampling, stratification and clustering, ratio and regression estimators, sub-sampling, selected topics in survey methodology.

STAT 570. Stochastic Processes (3)
Prerequisites: Statistics 551A.
Point and interval estimation and hypothesis testing in statistical models with applications to problems in various fields.

STAT 575. Actuarial Modeling (3)
Prerequisites: Statistics 550 or 551A.
Actuarial models and applications of probability and statistics to insurance and other financial risks. Utility theory; risk models, compound processes; survival distributions and life tables; life insurance, annuities and benefits.

STAT 580. Statistical Computing (3)
Prerequisite: Statistics 551B.
Machine computation in development, application, and evaluation of advanced statistical techniques. Floating arithmetic and algorithm stability; numerical methods for parameter estimation (including maximum likelihood) and multivariate probability integration; simulation and other computer-intensive statistical techniques.

STAT 596. Advanced Topics in Statistics (1-4)
Prerequisites: Consent of instructor.
Selected topics in statistics. May be repeated with the approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Teacher Education (TE)
In the College of Education
Note to all Multiple Subject and Single Subject credential candidates: All credential courses are listed and described in the Graduate Bulletin under the 900-series courses.

LOWER DIVISION COURSES
TE 170. Child and Adolescent Development from a Cultural Perspective (3) [GE]
(Same course as Child and Family Development 170)
Theories of human development using a cultural/ecological framework applied to case studies and direct observations. Open only to liberal studies majors. Not open to students with credit in Child and Family Development 170, 270, or Psychology 230. (Formerly numbered General Studies 130.)

TE 211. Field Experience in Mathematics and Science (1) Cr/NC
Two hours of activity and 10 hours of fieldwork.
Prerequisites: Recommended for sophomore or higher level students.

TE 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)
TE 303. The Teaching Profession: First Clinical Experience (3-4)
Two or three lectures and three hours of laboratory.
Prerequisites: Requires clearance for all legally mandated fingerprint requirements, tuberculosis clearance, and others as required by state and/or school districts.
Social science concepts and theories for the teaching profession; guided student observation and participation in public school classrooms.

TE 362. Fieldwork in Community Settings (1-4)
One lecture and one to six hours of activity.
Prerequisites: Consent of instructor and intent to enroll in teaching credential programs.
Tutoring process and teaching strategies for the content being tutored. Maximum credit six units.

TE 397. Problems in Education (1-4)
(Offered only in Extension)
Prerequisites: Consent of instructor.
Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor’s degree.

TE 402. Foundations of Education (3)
(Offered only at IVC)
Prerequisites: Admission to multiple or single subject teaching credential program.
Combines disciplines of anthropology, economics, history, philosophy, political science, psychology, and sociology to introduce student to concepts and generalizations informing the teaching and learning process in modern classrooms.
TE 415. Methods and Materials of Instruction (3)  
(If offered only at IVC)  
Prerequisites: Admission to single subject teaching credential program.  
Teaching concerns, instructional planning and materials, classroom management, measurement and evaluation, effective discipline, curriculum, computer literacy, special problems encountered in teaching, career planning, school-community communication processes.

TE 496. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

TE 499. Special Study (1-3)  
Prerequisites: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.  
Individual study. Maximum credit six units.

UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)

TE 511. Assessment in Mathematics Education (3)  
Techniques to assess and develop students’ mathematical understanding. For use by elementary and secondary classroom teachers and mathematics education specialists.

TE 525. Discipline and Classroom Management (3)  
(If offered only at IVC)  
Prerequisites: Six upper division units in education, psychology or sociology.  
Analysis of research and theories of classroom discipline, management, and teaching effectiveness, with practical application to the elementary and secondary classroom setting.

TE 526. Teaching the Special Child in the Regular Classroom (3)  
Prerequisites: Teaching credential or admission to multiple or single subject credential programs.  
Prepares general education teachers to adapt curriculum and instruction, differentiate instruction, meet social and behavioral needs, modify instruction for students with disabilities and for students who are gifted and talented. Not for multiple or single subject credential candidates. Not open to students with credit in Special Education 450 or 550, Teaching the Special Child in the Regular Classroom.

TE 530. Children’s/Adolescents’ Literature (3)  
Survey of children’s/adolescents’ literature and its incorporation into the classroom curriculum.

TE 596. Topics in Teacher Education (1-3 or 6) RP*  
Designed to meet the needs of individuals or groups of teachers who wish to develop or continue the study of some problem. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

* Specified sections.

GRADUATE COURSES  
Refer to the Graduate Bulletin.

Television, Film and New Media (TFM)  
In the School of Theatre, Television, and Film  
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES

TFM 110. Writing for Television and Film (3)  
Prerequisites: Satisfaction of the English Placement Test. Ability to type.  
Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing Studies 97, or notification from the Department of Rhetoric and Writing Studies.  
Theory and practice in writing for electronic and film media. Introduction to techniques of narrative and documentary writing and scripting.

TFM 115. Audio-Visual Production (3)  
One lecture and four hours of activity.  
Prerequisites: Television, Film and New Media 160 and admission to the Television, Film and New Media or Theatre Arts premajors.  
Audio-visual expression for both fiction and nonfiction. Methods and techniques of media production including writing for video, video and audio recording, and editing.

TFM 121. Audio Production (3)  
Two lectures and three hours of activity.  
Prerequisites: Credit or concurrent registration in Television, Film and New Media 110.  
Theory of audio production, use of digital recording, and editing equipment.

TFM 122. Basic 16MM Film Production (3)  
Two lectures and three hours of activity.  
Prerequisites: Limited to television, film and new media production majors.  
16MM film production and non linear editing.

TFM 123. Basic Video and TV Production (3)  
Two lectures and three hours of activity.  
Prerequisites: Credit or concurrent registration in Television, Film and New Media 110.  
Limited to television, film and new media production majors.  
Video and TV production including studio and electronic field production. Practical instruction in documentary practices and techniques.

TFM 160. Cinema as Art (3) [GE]  
Cinema in its diverse forms. Historical and stylistic influences on aesthetic values and social implications of cinema.

TFM 260. Intermediate 16MM Film Production (3)  
Two lectures and more than three hours of activity.  
Prerequisites: Television, Film and New Media 110, 121, 122, 123 with grade of C (2.0) or better.  
Proof of completion of prerequisites required: Copy of transcript.  

TFM 261. Intermediate Video and TV Production (3)  
Two lectures and more than three hours of activity.  
Prerequisites: Television, Film and New Media 110, 121, 122, 123 with grade of C (2.0) or better.  
Proof of completion of prerequisites required: Copy of transcript.  
Application of video production techniques to community based documentary practice. Practice of video and TV production. Emphasis on studio and sound stage. Responsibilities of producer, director, and production staff.
**UPPER DIVISION COURSES (Intended for Undergraduates)**

**TFM 310. Film, Television, and New Media Criticism (3)**
Prerequisites: Television, Film and New Media 160.
Critical approaches to study of film, television, and new media. Analyses of media perspectives, to include ideology, semiotics, genre, gender, and spectatorship.

**TFM 320. Film and Video Aesthetics (3)**
Prerequisites: Television, Film and New Media 110, 160.
Ways cinematic texts (films and video) work as language systems and complex cultural products. Major film and video theorists analyzed according to their contribution to the field.

**TFM 321. Sound Design for Video and Film (3)**
Two lectures and two hours of activity.
Prerequisites: Television, Film and New Media 260.
Digital audio post-production for video, TV, and film. Includes field acquisition, Foley, editing, and assembling.

**TFM 322. Cinematography for Television and Film (3)**
Two lectures and three hours of laboratory.
Prerequisites: Television, Film and New Media 122 and 123.
Basic cinematography, including introduction to specialized studio and location equipment; lighting techniques for film and television; introduction to film labs. (Formerly numbered Television, Film and New Media 522.)

**TFM 327. Film and Video Editing (3)**
One lecture and four hours of activity.
Prerequisites: Television, Film and New Media 122 and 123.
Theory and practice of film and video editing.

**TFM 330. Cultural Aspects of Media (3)**
Prerequisites: Journalism and Media Studies 200 and Television, Film and New Media 160.
Cultural dimensions of media. Media structures, uses, and effects at national and international levels in a context of humanities and conceptual arts.

**TFM 340. Documentary Production (3)**
Two lectures and two hours of activity.
Prerequisites: Television, Film and New Media 110, 121, 122 or 123, 261 with a grade of C or better.
Documentary film production including research techniques, investigative procedures, and collection and analysis of data. Screenings of historical documentaries and their significance in development of nonfiction film. Hands-on field experiences in documentary production.

**TFM 341. Service Learning Video Production (3)**
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 110, 121, 122, 123 with a grade of C or better.
Service learning video production workshop emphasizing nonfiction field production.

**TFM 350. Staging and Art for Television and Film (3)**
One lecture and six hours of activity.
Aesthetic considerations and technical practices in staging, lighting, and graphics for television and film. Practical experience in university sponsored productions.

**TFM 363. International Cinema (3) [GE]**
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Construction of foreign film to history and practice of cinema as an art. Film as an expression of national culture. Maximum credit six units of which three units may be applicable to General Education. May be repeated with new content. See Class Schedule for specific content.

**TFM 364. History of Film Classics (3-3)**
Prerequisites: Upper division standing.
Viewing and analysis of American and foreign theatrical films which represent milestones in development of cinema. Maximum credit six units from Television, Film and New Media 364, 364A, and 364B.
A. Early Developments through the 1950’s
B. 1960’s Through Today’s Cinema

**TFM 390. Broadcast and Film Performance (3)**
Two lectures and three hours of activity.
Prerequisites: Theatre 110.
Preparation and delivery of materials before the microphone and camera.

**TFM 401. Business Aspects of Television and Film Production (3)**
Prerequisites: Television, Film and New Media 260 or 261. Usually taken concurrently with Television, Film and New Media 560 or 561.
Proof of completion of prerequisites required: Copy of transcript.
Funding, preproduction planning, postproduction, and distribution of television and film.

**TFM 430. History of Prime-Time Television (3) [GE]**
Prerequisites: Television, Film and New Media 320 for majors. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
History, trends, and dynamics in the programming of prime-time network television. External and internal forces that influence what we watch.

**TFM 462. Documentary: History and Theory (3) [GE]**
Prerequisites: Television, Film and New Media 160 for majors. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Persuasive concepts, techniques, and forms in documentary film and television programs. Major historical works and their impact on society. (Formerly numbered Television, Film and New Media 562.)

**TFM 465. Compositing (3)**
Two lectures and three hours of activity.
Prerequisites: Television, Film and New Media 260 or 261.
Computer-generated imagery and compositing techniques used in feature films and broadcast television.

**TFM 470. Critical Studies of Gender/Sexuality/Media (3)**
Prerequisites: Television, Film and New Media 160 for Television, Film and New Media majors and upper division standing.
Critical approaches to representation, production, and reception of gender and sexuality in film, television and new media, including video games and the Internet.

**TFM 490. Internship (3)**
Prerequisites: Internship contract must be completed prior to registration.
Work with approved agencies off-campus under the combined supervision of agency personnel and instructor. Maximum credit six units.

**TFM 499. Special Study (1-3)**
Prerequisites: Upper division standing and consent of instructor. Individual study or project, normally in a research area selected by the student. Maximum credit six units.

**UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)**

**TFM 510. Advanced Script Writing for Television and Film (3)**
Prerequisites: Television, Film and New Media 110, 260 or 261; and satisfaction of the English Placement Test and Writing Competency requirements.
Scripting of dramatic original and adaptation forms, and the documentary.

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TFM 522. Advanced Film and Television Cinematography (3)
Two lectures and three hours of laboratory.
Prerequisites: Television, Film and New Media 260 or 261 and 322. Proof of completion of prerequisites required: Copy of transcript.
Advanced theory and practice of cinematography for film and television production. Lighting for mood and character; camera movement for story telling; and new techniques in film, digital, and HD formats. Careers in the purely visual aspects of film making. (Not the same course as Television, Film and New Media 522 in the 2004-05 catalog and previous SDSU catalogs.)

TFM 530. Selected Topics in Genre Studies for Television and Film (3)
Prerequisite: Television, Film and New Media 320 or admission to television, film and new media graduate program.
Film and television genres (noir, western, comedy, musical, science fiction, soap opera, etc.) including key media texts, aesthetics, themes, history, and social context. May be repeated with new course content. See Class Schedule for specific content. Maximum credit six units.

TFM 551. Production Design for Television and Film (3)
Prerequisites: Television, Film and New Media 350 and credit or concurrent registration in Television, Film and New Media 401. Theory and analysis of production design concepts for television and film. Development of designs and analysis of technical requirements for fictional and nonfictional productions.

TFM 560. Advanced Film (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 260, 261, and 510 with grade of B (3.0) or better in each and consent of instructor. Proof of completion of prerequisites required: Copy of transcript.
Practicum in direction and production of dramatic and nondramatic film. Cameras, lighting, design, sound techniques, experience in university sponsored productions. Completion of a short film.

TFM 561. Advanced Television (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 260, 261, and 510 with grade of B (3.0) or better in each and consent of instructor. Critical analysis of relationship of form and content in nonfiction production.

TFM 565. Animated Film and New Media Techniques (3)
Two lectures and more than three hours of activity.
Computer animation production and practical experience in digital postproduction technologies.

TFM 569. Advanced Projects in Film and Video (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 510, and 560 or 561. Original and creative work demonstrating significant achievement in film and video production. Maximum credit six units.

TFM 571. Selected Topics in Director Studies (3)
Prerequisite: Television, Film and New Media 310. Historical significance of and theoretical approaches to major media directors (Wellles, Hitchcock, Spielberg, etc.) including breadth of work, cultural and generic contexts, aesthetic innovation, and recurring themes. May be repeated with new content. See Class Schedule for specific topic. Maximum credit six units.

TFM 573. Selected Topics in History of Film, TV, and Media (3)
Prerequisite: Television, Film and New Media 310. Media history including cultural and generic developments, patterns of exhibition, technological influences, significant creative and industrial figures, commercial and social contexts. May be repeated with new content. See Class Schedule for specific topic. Maximum credit six units.

TFM 596. Selected Topics in Television, Film and New Media (1-4)
Prerequisites: Twelve units in television, film and new media. Specialized study of selected topics from the areas of television, film and new media. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Theatre (THEA)
In the School of Theatre, Television, and Film
In the College of Professional Studies and Fine Arts

LOWER DIVISION COURSES
THEA 100. Theatre and Civilization (3) [GE]
Introduction to theatre as a reflection of society and a contributor to development of civilization. Emphasis on theatre’s continuing relevance to contemporary world. Attendance at selected theatre events required.

THEA 107. Design Communication and the Audience Response (3)
Use of visual and aural design components by the actor, director, and designer in relation to audience response. Preparatory to theatre arts major sequence.

THEA 110. Fundamentals of Voice for Actors (3)
Kinesthetic exercises in vocal production leading to improved vocal function using the methods of leading exponents of voice work for the theatre, to include: Alexander technique, Fitzmaurice voice work, and Linklater technique. Development of vocal warmup.

THEA 115. Acting for Nonmajors (3)
Improvisational exercises (verbal and nonverbal) in sensory awareness, observation, concentration, listening, and response skills with application to other fields. Individual presentation techniques for the preprofessional in other disciplines.

THEA 120. Heritage of Dramatic Literature (3) [GE]
Three lectures and attendance at selected performances. Survey of dramatic literature from classical to the modern period, including classical, medieval, Renaissance, Restoration, neoclassical, romantic, realistic and modern plays.

THEA 130. Acting I (3)
Development of individual’s ability to express thought and emotion through effective use of the voice and body. These fundamental concepts may be applied to stage, film, and television acting.

THEA 231. Acting II (3)
Prerequisites: Theatre 110 and 130. Continuation of Theatre 130, emphasizing application of fundamental skills to problems of text analysis, subtext, playing action, characterization, and ensemble work.

THEA 240A. Theatre Design and Technology I (3)
Two lectures and three hours of laboratory.
Prerequisites: Theatre 100 and 107. Proof of completion of prerequisites required: Copy of transcript.
Design, technical practices, and production organization for the theatre; scenery and stagecraft.
THEA 240B. Theatre Design and Technology II (3)  
Two lectures and four hours of laboratory.  
Prerequisites: Theatre 100 and 107. Proof of completion of prerequisite required: Copy of transcript.  
Design, technical practices, and production organization for the theatre: lighting and sound.

THEA 240C. Theatre Design and Technology III (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 240A for majors. Proof of completion of prerequisite required: Copy of transcript.  
Design, technical practices, and production organization for the theatre: costume technology.

THEA 296. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

THEA 310. Creative Drama I (3)  
Current philosophies, principles, and techniques of creative drama. Development of the individual through use of dramatic play, imaging, improvisation, and theatre games. Applicable to classroom teaching, counseling, recreation, and senior citizen programs.

THEA 315. Theatre for Young Audiences (3)  
Current philosophies and practices in theatre for young audiences. Techniques of selecting and producing plays for and with youth. Theatre styles, script analysis, and functions of the production team.

THEA 320. Advanced Voice and Text for Actors (3)  
Prerequisites: Theatre 110, 231; or by audition.  
Techniques of vocal expression in the theatre, primarily in plays with heightened and elevated speech, e.g. Shakespeare and classic Greek drama. Maximum credit six units for Theatre 320B.  
A. Select Heightened Speech From the Greeks to Today  
B. Performing Specific Character in Department Production

THEA 325. Script Analysis (3)  
Prerequisites: Theatre 100 and completion of lower division writing competency requirement. Proof of completion of prerequisites required: Copy of transcript.  
Analysis of representative plays with emphasis on plot and character development, dramatic structure, action, and style.

THEA 329. Practicum in Theatre for Young Audiences Rehearsal Cr/NC (529A: 2 units) (529B: 1 unit)  
Two hours of activity per unit.  
Prerequisite: Theatre 315.  
Practical experience in department public performances of plays for young audiences.  
A. Rehearsal  
B. Performance

THEA 332. Acting III (3)  
Prerequisites: Theatre 110, 130, 231, and by audition.  
Continuation of Theatre 231, emphasizing analysis of literary text in process of creating characters. Scene study and role preparation of significant texts by modern playwrights. May be repeated once with consent of instructor.

THEA 345. Theatre Marketing and Publicity (3)  
One lecture and four hours of activity.  
Prerequisites: Theatre 100 or 107.  
Practical experience in marketing and publicity for theatres, including PSA’s, press releases, layout-graphics for written materials, magazine and newspaper advertisements, marketing strategy and campaign development for a full theatre season.

THEA 349. Theatrical Makeup (2)  
Two hours per unit.  
Prerequisites: Theatre 240B.  
Planning and application of makeup for stage, film, and television. Classroom exercises and production-related activities.

THEA 350. Musical Theatre Performance I (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 332 and by audition.  
Basic performance techniques in musical theatre. Emphasis on application of acting theory to musical theatre literature. Maximum credit six units.

THEA 351. Musical Theatre Performance II (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 332 and by audition.  
Vocal selections and scenes in musical theatre. Emphasis on characteristics and performance styles. Maximum credit six units.

THEA 355. Movement for the Theatre I (2)  
Two hours of activity per unit.  
Prerequisites: Theatre 332 and by audition for majors. Theatre 115 for theatre minors.  
Activities to develop physical skills of the performer. Links between imagination, movement, and body expression leading to character development.

THEA 359. Directing I (3)  
Prerequisites: Theatre 130, 240B, 240C, 325. Proof of completion of prerequisite required: Copy of transcript.  
Principles and techniques of directing for the stage: play selection, analysis, and interpretation; casting methods; stage composition and movement; and rehearsal procedures.

THEA 425. Production Synthesis (3)  
Prerequisites: Theatre 240B, 240C, and 359. Proof of completion of prerequisites required: Copy of transcript.  
Capstone course integrating artistic vision and production considerations through synthesis of text analysis, performance, and design in collaborative process unique to the theatre.

THEA 430. Speech for Stage and Screen (3)  
Prerequisites: Theatre 320 and 332.  
Exercises and drills to improve articulation in speech. Use of international phonetic alphabet and related media. Sociological issues connected to speech. Research, acquisition, and performance of accents and dialects of English. Maximum credit six units with consent of instructor.

THEA 431. Workshop in Improvisational Acting (3)  
Prerequisites: Theatre 332 and by audition.  
Theories and principles of improvisational acting.

THEA 434. Audition Techniques for the Actor (3)  
Prerequisites: Theatre 320 and 355.  
Techniques of auditioning and interviewing in the theatre, film, and television; selecting audition pieces, rehearsing, and performing auditions.

THEA 435. Acting for the Camera (3)  
Two lectures and two hours of activity.  
Prerequisites: Theatre 332 and by audition.  
Director/actor/camera collaborations in rehearsal and performance, using single and multi-camera television techniques. Preparing and performing monologues and scenes with practical experience in front of and behind the camera.

THEA 440. Scene Design I (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 240A and 325.  
Techniques and procedures in application of design, color, and perspective in designing scenery.
THEA 442. Practicum in Theatrical Production. (2)  
Two hours of activity per unit.  
Prerequisite for 442A: Theatre 240A. Prerequisite for 442B: Theatre 240B for majors. Theatre 240A or 240B for theatre minors.  
Technical theatre production experience for departmental public performances.  
A. Scenery Construction  
B. Costume Construction  
THEA 446. Practicum in Performance (446A-446B: 1 unit)  
(446C: 1-3 units) Cr/NC  
Two hours per unit.  
Prerequisite for 446A: Theatre 240A. Prerequisite for 446B: Theatre 240B. Prerequisite for 446C: Theatre 100.  
Practical experience in departmental public performances. (Theatre 446C formerly numbered Theatre 445A; Theatre 446A and 446B formerly numbered Theatre 445B.)  
A. Stage Crew. Maximum credit three units for Theatre 446A.  
B. Costume Crew. Maximum credit three units for Theatre 446B.  
C. Cast Member. Maximum credit six units for Theatre 446C.  
THEA 447. Lighting Design I (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 240C and 325.  
Concepts and technologies in lighting for theatre and related performance areas. Emphasis on mechanics of stage lighting, color, instruments, and control. Laboratory and production related activities.  
THEA 448. Theatre Technology (2)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 240A.  
Current materials and practices of theatre technology. Advanced construction techniques; stage machinery design and control; special effects; computer applications for stage operations; budget, research, and management procedures.  
THEA 452. Costume Design I (3)  
Two lectures and three hours of laboratory.  
Prerequisites: Theatre 240B and 325.  
Theory and creative application of principles of costume design for various types of production. Emphasis on concept development, character interpretation, research methods, color organization, and fabric selection. Laboratory and production related activities.  
THEA 459. Directing II (3)  
Two lectures and two hours of activity.  
Prerequisites: Theatre 359 and consent of instructor.  
Experience and group evaluation in directing one-act plays before an audience. Attendance at selected public performances required. Maximum credit six units.  
THEA 460A-460B. History of the Theatre (3-3) [GE]  
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities.  
Prerequisite not required for theatre arts majors.  
Theatre from primitive times to the present. Special attention given to the theatre as a mirror of the social and cultural background of various countries and periods in which it is studied. Theatre 460A is not prerequisite to 460B.  
THEA 465. Theatre of Diversity (3) [GE]  
Prerequisites: Theatre 325 for theatre majors. Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.  
Racial, ethnic, political, and social diversity of American landscape as reflected in works of major playwrights of diversity.  
THEA 475A. Stage Management-Theory (2)  
Prerequisites: Theatre 240B and 240C for majors. Theatre 240A, 240B, or 240C for theatre minors.  
Development of the prompt script, organizational methods, and collaborative personnel interaction. Maximum credit four units.  
THEA 475B. Stage Management-Practicum (3)  
Six hours of activity.  
Prerequisites: Theatre 475A.  
Practical experience in stage managing department productions. Maximum credit six units.  
THEA 476. Event Coordination and the Entertainment Industry (3)  
Two lectures and two hours of activity.  
Prerequisites: Theatre 240C.  
All aspects of producing special events, including venue designs and planning, managerial roles of entertainment industry, and how venue planning affects business decisions of these various managers.  
THEA 490. Theatre Internship (1-3) Cr/NC  
Prerequisites: Theatre 325; internship contract must be completed prior to registration.  
Work with approved theatre organizations off-campus under the combined supervision of theatre personnel and instructors. Maximum credit three units.  
THEA 496. Experimental Topics (1-4)  
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.  
THEA 499. Special Study (1-3)  
Prerequisites: Consent of instructor.  
Individual study. Maximum credit six units.  

UPPER DIVISION COURSES  
(Also Acceptable for Advanced Degrees)  
THEA 510. Creative Drama and Language Arts (3)  
Prerequisites: Theatre 310.  
Advanced techniques in using creative drama to teach literature and language. Emphasis on use of drama in teaching of reading and world literature. Practical experience through fieldwork in elementary or middle school classrooms.  
THEA 523. Stage Combat (2)  
Four hours of activity.  
Prerequisites: Theatre 332, 355, and by audition.  
Skills and choreography of armed and unarmed stage combat. Performance application to selected scenes from world drama.  
THEA 525. Dramaturgy (3)  
Two lectures and three hours of activity.  
Prerequisites: Theatre 325 or graduate standing.  
Theory and application of various aspects of dramaturgy and the literary management. Production-oriented synthesis of advanced text analysis, dramatic theory and criticism, historical research, and dramatic literature. Attendance at select plays required.  
THEA 530. Period Dress and Decor (3)  
Prerequisite: Theatre 240B or graduate standing.  
Visual survey of relationships and cultural significance of period dress, architecture, and decorative arts as applied to theatrical productions. Emphasis on significant historic periods in dramatic literature. Theatre 530A is not open to students with credit in Theatre 530.  
A. Ancient World Through Eighteenth Century  
B. NeoClassical Through Twentieth Century  
THEA 532. Advanced Acting and Directing (3)  
Prerequisites: Theatre 332 and either Theatre 320 or 355.  
Problems in characterization in contemporary drama, and in plays of Ibsen, Strindberg, Chekhov, and Shaw. Maximum credits six units.  
THEA 533A-533B. Theory and Styles in Acting and Directing I and II (3-3)  
Prerequisites: Theatre 332 and either Theatre 320 or 355.  
Acting and directing problems in theory and style related to the production of plays from great periods in theatre history, with attention to characterization, dramatic values, creative directing, and production approaches.  
THEA 539. Theatre Rendering (2)  
Four hours of activity.  
Prerequisites: Theatre 240B.  
Rendering for scenic, costume, and lighting designer. Techniques, media, and portfolio preparation. Maximum credit four units.
THEA 540. Scene Design II (3)
Prerequisites: Theatre 440 and 530A or 530B.
History of scene design and application of contemporary styles to various types of dramatic production.

THEA 541. Scene Painting (2)
Four hours of activity.
Prerequisites: Theatre 530A or 530B.
Theories and techniques of scene painting, including both historical backgrounds and modern procedures. Full-scale projects executed in scenery studio.

THEA 545. Mechanical Drawing for the Theatre (2)
Four hours of activity.
Prerequisites: Theatre 240A or admission to MFA in Design. Theatre drafting standards and techniques. Floor plans, sections, elevations, perspective drawings, and light plots.

THEA 546. CADD for the Theatre (2)
Four hours of activity.
Prerequisites: Theatre 545.
Computer aided drafting applications for theatre designer.

THEA 547. Lighting Design II (3)
Two lectures and three hours of laboratory.
Prerequisites: Theatre 447.
Advanced design theories and lighting practice for theatre and dance. Laboratory and production related activities.

THEA 548. Sound Design for the Theatre (3)
Two lectures and two hours of activity.
Prerequisites: Theatre 240C and 325.
Theories and techniques of sound design and reinforcement for theatrical performance. Laboratory experience in sound production.

THEA 549. Lighting and Sound Technology (2)
One lecture and three hours of laboratory.
Prerequisites: Theatre 447.
Use of electrics for the stage. Lighting, sound, computer. Practical applications emphasized.

THEA 550. Software for Theatrical Design (2)
Four hours of activity.
Prerequisites: Theatre 440, 447, 452, or 546.
Application of computer software for theatre, including scenery, costume, lighting, and sound design.

THEA 552. Costume Design II (3)
Prerequisites: Theatre 452 and 530A or 530B.
Advanced studies in costume design. Emphasis on theatrical style, rendering layout, design problems, materials, and budget.

THEA 554A. Costume Design Technology I (2)
Four hours of activity.
Prerequisites: Theatre 240B.
Current materials and practices of costume technology: advanced construction techniques, fabric selection and use, period pattern drafting, draping, and cutting. Maximum credit four units.

THEA 554B. Costume Design Technology II (2)
Four hours of activity.
Prerequisites: Theatre 240B.
Advanced costume craft construction techniques and management procedures for costume production: millinery, fabric dyeing and painting, jewelry, and related crafts. Maximum credit four units.

THEA 555A. Movement for the Theatre II (2)
Four hours of activity.
Prerequisites: Theatre 332 and 355.
Movement techniques for the theatre. Movement patterns, phrase development, and partnering leading to scene work. Maximum credit four units. (Formerly numbered Theatre 555.)

THEA 555B. Movement for the Theatre II (2)
Four hours of activity.
Prerequisites: Admission to the MFA musical theatre program. Consent of instructor for undergraduates. Musical theatre movement and dance styles. Maximum credit eight units.

THEA 570. Practicum in Theatrical Production (1-3)
Prerequisite: Theatre 440, 447, or 452; or admission to MFA in Design.
Design projects in areas of scenery, costume, lighting, sound, or makeup. Maximum credit six units for 570A and six units for 570B.
A. Independent Study
B. Design for Department Public Performances

THEA 580. Theatre in the Classroom (3)
Prerequisites: Theatre 310 and 315.
Methods of teaching theatre in elementary, middle, and secondary schools. Emphasis on pedagogy, organization of curriculum, play selection, and principles of producing plays in the classroom.

THEA 596. Selected Topics in Theatre (1-3)
Prerequisites: Twelve units in theatre.
A specialized study of selected topics from the areas of theatre. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES
Refer to the Graduate Bulletin.

VIETNAMESE (VIET)

In the Department of Linguistics and Asian/Middle Eastern Languages
In the College of Arts and Letters

LOWER DIVISION COURSES

Native speakers of Vietnamese will not receive credit for taking lower division courses in Vietnamese except with advance approval from the department.

No credit will be given for Vietnamese 101, 102, 201 taken out of sequence.

VIET 101. Elementary Vietnamese I (4) [GE]
Introduction to Vietnamese language with emphasis on development of four basic language skills. Essential sentence structures for communication in everyday contexts. Not open to students who have completed three years of high school Vietnamese unless the third course was completed five or more years ago. Not open to students with credit in Vietnamese 102.

VIET 102. Elementary Vietnamese II (4) [GE]
Prerequisites: Vietnamese 101 or two years of high school Vietnamese.

Continuation of Elementary Vietnamese I with focus on development of four basic language skills. Emphasis on culturally appropriate conversation for everyday contexts. Not open to students who have completed four years of high school Vietnamese unless the fourth course was completed five or more years ago. Not open to students with credit in Vietnamese 201.

VIET 201. Intermediate Vietnamese I (4) [GE]
Prerequisite: Vietnamese 102.

Further development of speaking, reading, listening, and writing skills, with emphasis on language of everyday conversation. Integrated approach to learning Vietnamese to include awareness and appreciation of Vietnamese culture. Not open to students who have completed five years of high school Vietnamese unless the fifth course was completed five or more years ago.
Women’s Studies (WMNST)

In the College of Arts and Letters

LOWER DIVISION COURSES

WMNST 101. Women: Self, Identity and Society (3) [GE]
Interdisciplinary introduction to women’s studies thought and scholarship in the social sciences, to include such areas as gender-based language, personality development and self-concept, social evolution, family structures, and economic life.

WMNST 102. Women: Images and Ideas (3) [GE]
Major cultural representations of women in ancient through contemporary societies from perspectives in the humanities, including philosophy, religion, art, literature, and history.

WMNST 296. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

WMNST 310. Women in Cross-Cultural Perspective (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Comparative study of social, economic, political, and ideological aspects of women’s position in local and global contexts. Women’s status as impacted by modern, indigenous, transitional, and/or border cultures.

WMNST 320. Socialization of Women (3) [GE]
Impact of formal and informal institutions on female development and roles across the life span.

WMNST 325. Psychology of Women (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Theories of the psychological development of women; investigation of biological and cultural factors influencing personality and behavior.

WMNST 331. Women in Asian Societies (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Socio-economic status of women in Asia. Feminism and the status of women in China, India, Japan, Korea, Philippines, and other countries. Feminist movements in Asia and women’s status as affected by changing social, economic, and political orders in Asia.

WMNST 336. Women of Color in the United States (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Experiences of U.S. women of color through study of personal essay/auto-biography, oral history, plays/novels, poetry, performance/visual art, theory, and other genres. Themes may include identity, voice, representation, empowerment, oppression, and social change.

WMNST 340. Women in Modern European History (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Impact of modernization on roles of women in family and society from the eighteenth to mid-twentieth centuries in Europe.

WMNST 341A-341B. Women in American History (3-3) [AI]
History of American social, cultural, economic, political, and intellectual institutions, focusing on the role and ideological aspects of women’s history in the modern period. Satisfies the graduation requirement in American Institutions.

WMNST 352. Women in Literature (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Literature by and about women; appraisals of women’s place in various literary genres; historical and contemporary themes; evolution of forms and techniques; relation to other art forms.

WMNST 360. Women’s Sexuality and the Body (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
Social, cultural, and political aspects of women’s sexualities and bodies; relationships among beliefs and practices, and among sexual behaviors and identities in historical context; role of popular culture, scientific, medical, and religious ideas.

WMNST 370. Women, Law, and Policy (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Legal factors affecting women in employment, education, health and welfare, property ownership and criminal justice, including investigation of public policy issues which affect women’s lives.

WMNST 375. Sex, Power, and Politics (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Social, economic and political factors which explain women’s political status and participation. Topics include institutional structures, leadership and ideology, power and authority, and the women’s movement as a political movement.

WMNST 382. Gender, Science, and Technology (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.A.2, Life Sciences.
Feminist science studies to include women in science, scientific research on sex and gender differences, gender in relation to technology. Social and political impacts of science and technology and global contexts.

WMNST 385. Women’s Work (3) [GE]
Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.
Conditions and factors affecting women’s paid and unpaid work. Marriage, divorce, fertility, and childcare; women’s occupations, earnings and education; economics of sex discrimination; government economic policies and women’s welfare.

WMNST 496. Experimental Topics (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree.

WMNST 499. Special Study (1-3)
Prerequisites: Three upper division units and consent of the department chair and instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

WMNST 512. Latinas in the Americas (3)
Prerequisites: Three upper division units in women’s studies. How social and other factors impact the lives of Latin American women. Theoretical frameworks illuminate their situation. Sociocultural perspectives are offered on Latin American women’s life narratives.

WMNST 515. Women: Myth, Ritual, and the Sacred (3)
Prerequisites: Three upper division units in women’s studies. Meanings and functions of myths and rituals in their sacred and secular aspects, emphasizing their impact on women’s lives and relationships in differing cultural contexts, past and present.
WMNST 520. Reproductive Rights and Justice (3)
Prerequisite: Three upper division units in women's studies.
History, cultural attitudes, and politics of reproduction and sexual health to include abortion, contraception, sterilization, sexually transmitted diseases (STDs), HIV/AIDS, sex education, reproductive, and genetic technology.

WMNST 522. Women: Madness and Sanity (3)
Prerequisites: Three upper division units in women's studies.
Mental health and mental illness in literature, film, and psychological research. Clinical and feminist approaches to mental health issues in women's lives.

WMNST 530. Women's Movements and Activism (3)
(Selected sections offered as distance education)
Prerequisites: Three upper division units in women's studies.
Comparative study of women's movements worldwide, including organizations, issues and initiatives. Women's diverse social/political strategies within local, national, and global contexts. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

WMNST 535. Lesbian Lives and Cultures (3)
Historical, cultural, and social exploration of lesbianism. Topics include myths and stereotypes, history and literature, social and political movements, theoretical explanations, and current conditions.

WMNST 536. Gender, Race, and Class (3)
Prerequisites: Three upper division units in women's studies.
Intersecting theories of gender, race and class in both local and global contexts. Major themes in history, culture, and contemporary lives of women analyzed through feminist and critical race theories.

WMNST 540. Women and the Environment (3)
Prerequisites: Three upper division units in women's studies.
Environmentalists and authors including those in diverse communities, settings, and alliances (Native American, British colonial, Asian, American environmental movements, urban environmental justice).

WMNST 545. Women and Sports (3)
Prerequisite: Three upper division units in women's studies.
Diverse women's creation of and involvement in recreational and competitive sports, mid-1800s to present to include impact of medical experts' views, homophobia, disability, individual elite athletes, team sports, economic viability, and changes since Title IX.

WMNST 553. Women and the Creative Arts (3)
Prerequisites: Three upper division units in women's studies.
Representations of women in literary, visual, and/or performing arts as well as crafts; artistic contributions of women across cultures; theories of creativity and gender. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

WMNST 560. Women in Muslim Societies (3)
Prerequisites: Three upper division units in women's studies.
Socio-political status of women in Muslim societies in Middle East, North Africa, and Asia; women in the Quran; Muslim women's movements.

WMNST 565. Women: Health, Healing, and Medicine (3)
Prerequisites: Three upper division units in women's studies.
Relationship of women to "modern" and "traditional" health care/healing systems in historical and cultural perspective. Representations and practices regarding the politics of women's health and illness.

WMNST 572. Women and Violence (3)
Prerequisites: Three upper division units in women's studies.
Forms of violence against and by women. Processes which shape women's resistance to, and collusion in, social, economic, political, and sexual violence.

WMNST 580. Women, Development, and the Global Economy (3)
Prerequisites: Three upper division units in women's studies.
Women's roles as agents and recipients of global economic and political change focusing on women's empowerment, work, health, and the environment. Topics include women's movements worldwide and non-governmental organizations.

WMNST 581. Women's Experiences of Migration (3)
Prerequisites: Three upper division units in women's studies.
Gender analysis of impact of international migration on women's lives. Identity formation, trauma, language, gender roles, and sexuality in life narratives of immigrant and refugee women. Economic and legal issues affecting immigrant and refugee women.

WMNST 582. Feminist Science Studies (3)
Prerequisites: Three upper division units in women's studies.
Feminist philosophy of science, history of science, and social studies of science. Feminist critiques of science and technology to include patented life forms, reproductive technologies, genetic engineering and cyberfeminism.

WMNST 590. Feminist Thought (3)
Prerequisites: Six upper division units in women's studies.
Readings of feminist theory in historical perspective, with attention to contemporary debates in feminist scholarship.

WMNST 595. Seminar in Women's Studies (3)
Prerequisites: Six upper division units in women's studies and consent of instructor.
Directed research in women's studies. Field of investigation will vary with instructor. Methods of investigation, development of bibliography, presentation of paper based on original research. See Class Schedule for specific content.

WMNST 596. Topics in Women's Studies (3)
Prerequisites: Consent of instructor.
Advanced topics in women's studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 596, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

WMNST 597. Research Project (3)
Prerequisites: Six upper division units in women's studies and consent of adviser.
Individual research project. May be taken in place of Women's Studies 595. Seminar in Women's Studies.

WMNST 598. Women's Studies Internship (3) Cr/NC
Prerequisites: Three upper division units in women's studies.
Application of women's studies theories and scholarship to community service and activism. Internship includes 120 hours of work in local public and private agencies serving women and girls. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.